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**LOCAL ONTOLOGIES AND EPISTEMOLOGIES OF
LEADERSHIP IN THE ROSEBANK BUSINESS PRECINCT OF
AUCKLAND, NEW ZEALAND**

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Abstract

The Rosebank Business Precinct is one of Auckland's most highly developed Business Improvement Districts. This descriptive study, undertaken for Auckland City Council, examines the gaps between what Rosebank businesses actually want and what the workforce presently provides. A further aim was to investigate the potential for employee training, education and development in Rosebank. We conducted face-to-face interviews with about one-fifth of Rosebank companies using a 36-question questionnaire and employing random stratified cluster sampling. Fifteen of these firms also had in-depth interviews. From the present analysis, it is apparent that many firms lack leadership, leadership styles, managerial, computing and technology skills, which in turn leads to lower survival rates. Local authorities have a role to play in ontologies and epistemologies of leadership in the local organisations surveyed in Rosebank. Many owner/managers, regarded as leaders, held unsupportive attitudes toward training and education. The paper makes recommendations in the fields of labour force training, education and development; recruitment; and where leaders can recruit the right people.

Keywords: Development, Knowledge, Leadership, Leadership Styles, Training

1. Introduction

New Zealand is moving into a niche-based, knowledge and value-adding economy. Leaders with the right leadership style and skills are required to lead the workforce of Auckland's most highly development business improvement district, the Rosebank Business Precinct, into the challenges of the 21st century. Where and how do the Rosebank leaders get the right people from? Leaders are required to ensure that the right people are recruited and employed. The ultimate goal of this research report is to identify these leaders, leadership styles and recruiting of people with the right knowledge, skills and attributes (KSAs) to grow existing ventures.

Who could be regarded as a leader? A leader as defined by Daft and Pirola-Merlo (2009) is somebody leading others through the process of arousing enthusiasm and directing efforts toward organisational goals. Leadership style on the other hand is the recurring pattern of behaviours exhibited by a leader.

This is the era of 'super leaders' who, through vision and strength of personality, could have an inspirational impact on others. These leaders could use a variety of leadership styles such as a charismatic leader who develops a special leader-follower relationship and inspire others. Another inspirational leadership style is known as the transformational style that gets people to

do more in achieving high performance. The third kind is the transactional leadership style where the efforts of people are directed through tasks, rewards and structures (Daft et al, 2009).

Technology is an invaluable tool for leaders and Human Resource Management (HRM) processes to execute its tasks in an organisation (Du Plessis, 2009; Härtel, Fujimoto, Strybosch, and Fitzpatrick, 2010). It is also useful in the recruiting process; it is effective, quick and in vogue in all countries by more and more recruiters. E-recruitment is growing exceptionally fast. Organisations and employment agencies can display their vacancies; work-seekers can enter their CV's on the World Wide Web at a relatively inexpensive price. Advantages and disadvantages will be discussed later in this article.

Locally as well as nationally, professionals, technicians and associate professionals, trade workers, plant and machine operators and assemblers are in severe shortage (Statistics New Zealand, 2008). Leaders, who can identify their labour needs, who can recruit the right employees and thus solve the problems around it, are required in organisations. E-recruitment seems to solve the main recruiting problem because the best people with the necessary KSAs could be recruited globally.

This study was financed by Auckland City Council. It focuses on Auckland's Rosebank Business Precinct. The surrounding communities, particularly Māori, Pacific peoples and recent migrants, experience disparities in employment. Our research questions were:

- Is there a skills match between the present-day workforce and actual business needs over the medium term?
- What can these data tell us about Rosebank's trajectory as a skilled business cluster and about its future workforce requirements?
- From where and what methods are used to recruit the right people (with the right KSAs) to fill vacancies? (*This question will be answered in this article; the above two questions are dealt with in other articles*).

2. Literature Review and Background

2.1 Training and Education

Training is one of the best ways to confront the export of talent from New Zealand and the "brain drain" to Australia and elsewhere, according to Coddington (2010). Leaders need to know that the better training that the employees receive, the better their performance, the higher their degree of loyalty, the lower the labour turnover, and the greater the savings and profits for businesses. OECD research has shown that programmes targeting human capital are cost-effective because they build on local resources, provide "value-add" for tax dollars spent, and enrich the local skills base. A good example is Japan. Most Japanese leaders in manufacturing companies enjoy worldwide competitiveness precisely because their tertiary education and training systems were matched to the needs of employers (Blakely 1991; Jones & Vedlitz 1988; Nothdurft 1991; O'Toole & Simmons 1989; Reich 1982; Thurow 1980; Wolanan *et al.* 1991; Wolman and M. Goldsmith 1992).

2.2 Human Resource's Role

Human Resource Management (HRM) is responsible to see that no skill shortages occur in their organisations. It does occur though when the Human Resource (HR) department is unable to fill

vacancies because of an insufficient number of job seekers with required skills (Du Plessis, Hobbs, Marshall, Paalvast, 2008). There is a mismatch between what employers need and what workers actually can provide. Training and education are essential tools for industry leaders, employers and policy makers. Training systems, according to Ishaya (2006) need to be in place so that the labour force can work effectively and efficiently. Härtel et al (2010) regard labour force development as one of the most strategic policies in the HRM arsenal.

A decade ago Thussu (2000) and later Ahlawat & Ahlawat (2006) highlight the need for increased focus on employment practices in the new business environment. Langbert (2005) and Sincoff & Owen (2004) point out the need for expanded curricula in the tertiary sectors to ensure that relevant fields of KSAs are covered. Cressy's (1996, 1999) finds evidence for the primacy of human capital in business longevity: workers with higher levels of human capital earn higher wages. Skilled workers have more assets to invest in their own business formation. Both government and the private sector have a role to play in addressing skill shortages. Government must find ways to incentivise the education and training sector to combat skills shortages.

To be able to do the abovementioned, it is necessary to have proactive leaders with the right leadership styles in organisations. It is therefore important to differentiate between the "two concepts, leaders and leadership styles" on the one hand but also to point out that they are not stand-alones but interacting. Leadership style as a key component of this paper is analysed from the interactive leadership style approach which is derived from the neo-classic human relations motivation school, underpinned by symbolic interactionism.

2.3 Some Models and Leadership Styles

The leadership competency model of Mintzberg (2004) comparable with the interactive leadership theory of McClelland of more than three decades ago (1975) supported more recently by Burnham (2003) is relied upon in answering the question put above of what kind of leadership is required in organisations in order to create a workforce with the right people, with the right KSAs. Mintzberg (2004) does not differentiate between leaders and management and in his opinion the terms could be used interchangeably because leaders have to manage and managers have to lead.

Leadership style is regarded as a pattern of behaviours designed to integrate organisational and employee interests in pursuit of the objective. All managers develop a style of leading or motivating their subordinates according to Gildenhuis (2008) and Daft et al (2009). Gildenhuis further supports what was mentioned above that the symbolic interactionism as a social-psychological perspective focuses on individuals with a self (the "I" and the "me" responding to a social situation that is within the experience of the individual) and on the interaction between a person's (leader's) internal thoughts and emotions and the consequent social behaviour. Leaders and their leadership styles are therefore not "stand-alones", although it could be unique to individuals. Individuals interact in terms of shared meanings that they attribute to each other's actions and the situations in which such interactions take place. This is the basis for understanding leadership experience in the world of work.

Organisations could use training, education and development needs analysis of their management team to determine the kind of leadership style organisations have to adopt to establish a positive experience of diversity management and to continue to be successful in leading their organisations to better performance. A continuous adjustment to emerging changes is required of organisational leaders to manage the more diverse workforce in the Rosebank Precinct.

2.4 Ontology and Epistemology

Ontology, the study of existence, is the most general branch of metaphysics concerned with the nature of being; epistemology, the theory of knowledge, is the branch of philosophy that studies the nature of knowledge in particular foundations, scope and validity. These studies are therefore two very important “pillars” for leaders, especially the Rosebank leaders, to build their leadership style on. Ontology includes studies concerned with time and space, existence and causality which impacts on leadership styles e.g. the leader makes an authority decision and then communicates it to the employees instead of making a consultative decision where the leader receives information, advice or opinions from the employees before making a decision. Managers tend to classify and generalise people into groups on their direct and indirect experience. The complexity of individual identity and individual interaction has implications for the manner in which the manager will manage and the leader will lead.

Van Zyl, du Plessis, Lues and Pietersen (2009) and also Gildenhuis (2008) are of the opinion that leaders who develop their workforce through training and development are more likely to increase motivation, commitment and self-confidence than are leaders not concerned with the development of their workforce. Performance does not only depend on ability, but on the conversation (self-interaction) individuals have with themselves about their ability (self-confidence) and the conversations leaders (managers) have with themselves about others. Leaders play a pivotal role in establishing the character and nature of the organisation experienced by their employees. The leaders of an organisation are tasked with differentiating their organisations, through greater efficiencies in performance, in a changing environment in which nationality, gender, race ethnicity, sexual orientation and a few others are key elements of their diverse workforce, as was found in the Rosebank study.

2.5 Ontology and epistemology for Rosebank Precinct in the 21st Century

Du Plessis and Frederick (2008), Daft et al (2009) and also Gildenhuis (2008) refer to the importance of understanding leadership styles. For the local leaders in the Rosebank Precinct it is also a component in managing their diverse workforce. The symbolic interaction views interdependence between the past, present and future as examining the historical development of management as a science understanding the ontology and epistemology of leadership styles in the 21st century. The historical development of management and the evolving role of leadership styles demand cognisance of leadership and management as ontology and epistemology in the 21st century. It involves breaking down old structures and establishing new ones with sharing of new realities, actions and practices securing the unequivocal support of the stakeholders of the organisation (Du Plessis, Hobbs, Marshall, Paalvast, 2008).

2.6 Leaders and their vision for training, education and development of staff

One of the most prominent characteristics of a leader is the desire to develop a clearly articulated and appealing vision for the organisation. To adopt or develop a new sense of direction (vision) that others will find compelling and exciting. Quality leaders are sometimes “measured” by their vision. Vision is a commodity of leaders, someone who channels the collective energies of employees in the organisation in pursuit of a common vision and who has a clear vision of the future state of the organisation (Northouse, 2001).

Once this is clearly identified and defined by the leader, training, development and education, among others, can be scheduled for their staff members. Training could include a programme to

help employees fit in the direction of the organisation and to create a new coalition of employees who would be compatible with the new vision. Leaders could further do a number of things to sharpen their employees' skills and increase their body of knowledge through training and education.

Knowing their strengths and weaknesses, values and norms leaders could use it as a window of opportunity for learning and development of their employees. In order to facilitate learning by members of the organisation, leaders could encourage subordinate managers to set longer time horizons in developing their employees' careers and also aim the training and education towards developing their planning skills, awareness of trends and changes, new technology and so forth, to improve the organisation's performance. Leaders must be committed to learning and relearning including consistent emphasis on education in the organisation to create the feelings of confidence and trust in them, according to Northouse (2001).

3. Methodology

The target population was the 500-600 businesses operating on Rosebank Road, Auckland, New Zealand. These are the physical locations listed on: (1) the Roll of Rate Paying Businesses of Rosebank Business Association; (2) *apnfinda* intelligence data on businesses located on Rosebank Road; (3) Membership Directory of the Rosebank Business Association; and (4) Information collected by researchers in the field. When we combined and de-duplicated the data, we arrived at 529 businesses in the Rosebank population of firms. We conducted face-to-face interviews with 102 companies within that population. We used a 36-question questionnaire and employed random stratified cluster sampling. We divided the population into "Industry" and "Firm Size" groupings to establish desired representative proportions based on Statistics New Zealand (2006).

We selected a random sample from the members of each grouping. The grouping was treated as the sampling unit and analysis was done on a population of groupings. If after polling we did not reach the required level of representation in a particular grouping, then we went back to that grouping for more respondents. The sampling frame was owner-managers (and sometimes senior, non-shareholding managers) of firms within the Rosebank Business Precinct. This analysis is of firms, not individuals. About a quarter of the respondents voluntarily agreed to be identified.

4. Results

4.1 Overview

A total of 47% of the sample agreed to tell us their annual revenue or turnover. The sampled companies comprised 33% manufacturing firms. Wholesaling and retailing taken together accounted for 36% of the responding firms. More than two thirds (78%) of the respondents had less than twenty employees. Rosebank managers/leaders are predicting a steady rate of employment. The biggest decline in employment over the medium term is in sales and service (-34%). Unskilled workers were next with -24.9% followed closely by clerical staff with -23.6%. The need for tradesmen (applied technologies and trades) is expected to increase sharply by +80.4%, followed by a gain for technicians at +23.1% and professionals 12.84%.

4.2 Vacancies

Skill shortages occur when firms are unable to fill vacancies because of an insufficient number of job seekers with required skills and so differ from recruitment difficulties and skills gaps. We looked at anticipated vacancies, ease or difficulty of recruiting, the channel used for recruitment,

and differences by job category. Of the respondent firms that had vacancies, 68.75% had vacancies for up to 3 months and 31.24% vacancies for up to 6 months. The highest level of anticipated vacancy was for tradesmen, with 25.1% of businesses reporting the need for more qualified tradesmen. This is followed by the need for sales and service staff at 21.8%. The need for technicians was 12.5%, followed by unskilled at 9.9%.

4.3 Recruitment methods

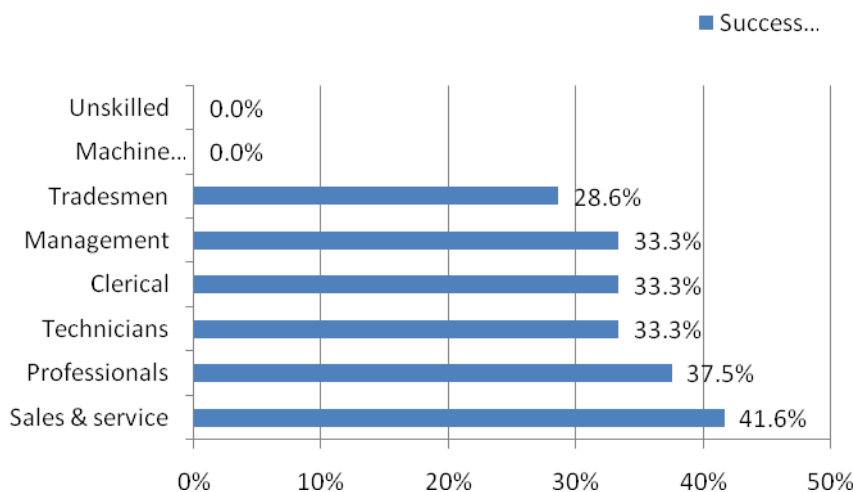
Our research shows that the most frequently used recruitment method overall was word of mouth, but its “power score” was mid-rank. It was successful only for the lower job categories. Recruitment agencies were the most powerful by this measure. They were used for every type of employee but were most successful for tradesmen and machine operators, less so for management. Table 1 below summarises it.

Table 1: Use and success rates of recruiting channels

	Percent of firms who used this channel	Failure rate	Success rate
Word of Mouth	27.6%	69%	31%
Recruitment Agencies	25.3%	59%	41%
Web/Online	21.1%	67%	33%
Media channels	19.9%	60%	40%
WINZ	4.2%	73%	27%
Trade fair	1.9%	100%	0

Web/online was just behind recruitment agencies (see Figure 1 below). Media channels had mid-rank score, were used frequently but were not at all successful for unskilled workers and machine operators. Work and Income New Zealand was excellent for unskilled workers and helpful for technicians but not at all useful for the other categories.

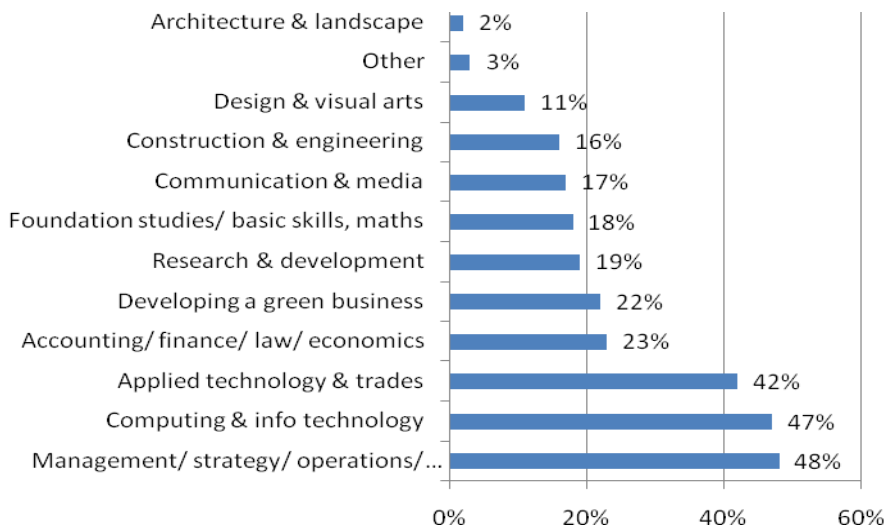
Figure 1: How successful was Web/online for different job categories?



When asked to describe the top education and training needs that they had over the next three years, respondents could choose more than one category and most respondents chose several

categories (see Figure 2 below). The top needs of Rosebank businesses were: Management/ strategy/ operations/ sales & marketing; Applied technology and trades; Computing & information technology; followed by Accounting, finance and law. A relatively new training need deserves special mention: “Developing a Green Business”. Twenty-two percent of respondents mentioned this as a need over the next 3 years. From our research it can be deduced that word of mouth, recruitment agencies and e-recruitment (Web/online) were the most used forms of recruiting.

Figure 2: Where are Rosebank Precinct’s training needs over the next 3 years?



4.4 Training Costs

We explored the leading concerns of our sample firms. Employee retention was the most important of all issues, with 81% saying that this issue was either most important or important. Sixty-nine percent said that having the available skills was either most important or important. Thirty-nine percent of respondents were concerned about training costs. More than half of respondents (58%) said that staff recruitment was the main concern over the next 3 years. Fifty-two percent of respondents mentioned availability of training. Training can help organisational survival, improve employee performance, raise bottom lines, and be rewarding to people for having more skill and KSAs. Nearly half (46.9%) said that they could not afford any money for training.

4.5 Importance of training

Only 41% of the respondents said they already undertook training whilst 57% had nothing. Of those who already have training were asked to describe that training. This ranged from simple Occupational Health and Safety (OHS) training to more in-depth and expensive professional training for leaders. Respondents included project management, time management, sales, IT training, electrical trade, food and hygiene, fire safety, first aid, warehousing, logistics, security, inventory management, competitor intelligence, trade certification, business coaching, and traffic management in their management training. When our respondents were asked why they had no

training, 46% said it was because they did all of their own training on the job. The greatest source of training was shop floor training at 71%.

4.6 Training needs

We sent researcher teams back to interview 15 companies who had agreed to be identified and have a second-round in-depth interview. The purpose was to gain deeper insight into their leaders' attitude and willingness towards training, education and development of their workforce. The following was found:

- There are many who expressed unsupportive attitudes toward training and education. Many Rosebank leaders/owners/managers are self-made school drop-out entrepreneurs and they may have a suspicion of education and training.
- There is increasing recognition that the "headhunting" of trained staff is affecting everyone's business.
- A deeper analysis of reasons for no training throws suspicion on cultural aspects such as motivation, education and expectations from a working life.
- There is an awareness of the need for a specialised labour force.
- There is a lot of awareness of the globalisation of the economy and how New Zealand business should respond, particularly to China and the recent Free Trade Agreement signed between New Zealand and China.
- There is a lot of grumbling about compliance costs (e.g. the labour cost and other expenses incurred in complying with national tax laws and other rules).

7. ROSEBANK AND EDUCATIONAL INSTITUTIONS LEADER'S ROLES

At the end of this endeavour, taking into account all the data collected and the analysis carried out, we allow ourselves to make some statement about the principal policy levers that Auckland City Council might employ to affect training and education in Rosebank.

- Nearby academic and training institutions are not communicating well enough with Rosebank. They need to be informed of Council's strategic considerations as it relates to training and education as to a knowledge-based, innovation-centred Rosebank.
- It may be appropriate to consider property incentives for limited co-location of businesses with universities and polytechnics by bringing together prime prospects and stakeholders and by providing land and infrastructure requirements.
- Take a "Top Three" approach to training: Computing/IT; Management & Accounting; and Applied Technologies. These are the top training needs identified on Rosebank Road today and for the near future.
- Council can encourage networking between leaders in educational institutions and leaders in Rosebank businesses to better understand business needs, provide training, and revamp curricula to fit needs.

- Through role models and leadership, Council should undertake a campaign (contest?) to address prejudices, perceptions and awareness to make training attractive to New Zealanders
- Young entrepreneurs from the surrounding communities should be supported through clubs and micro-funding. This will prepare an enterprising generation to move into Rosebank in its time.

8. SOME ADVANTAGES OF E-RECRUITMENT

- The speed with which all activities takes place.
- Applicants can register for seasonal work and whenever an opportunity arises they can be offered a position.
- Employers can easily search for the person best suited for a particular job.
- Helps hospitals to do web interviewing which again helps to screen out candidates who would be a waste of money and time if they go forward to the next level of the interviewing process.
- Consistent information is obtained from all candidates as the same questions are asked to each candidate
- Pre-screening software help recruiters to design individual online questionnaires for specific job requirements.

9. SOME DISADVANTAGES OF E-RECRUITMENT

- The main problem is the query key; most of the users search through hundreds and thousands of jobs for a particular query and that overloads the system
- Whether everything is done according to the relevant legislation such as to comply with their Privacy Act.
- It is not quite so useful for the jobs in the local market. There is little point advertising a job on the Internet when the applicant needed should be from the local area
- Everyone does not have access to Internet; it might not reach all potential candidates.
- E-recruiting releases plans to their opposition.

10. RESEARCH QUESTION ANSWER

The advent of e-recruitment has meant that the management of such a system changes. Traditionally management was focused on ensuring advertisements were ready for print to meet media deadlines. Part of this was the preparation for phone contact, and postal responses. If electronic scanning was used this was hand fed into a scanner for comparison. In its effort to shift to e-recruitment, The New Zealand Government is investing heavily in the e-recruitment market. To answer our research question for this article: From where and what methods are used to recruit the right people (with the right KSAs) to fill vacancies? We can refer leaders to Table 2 below:

Table 2: “Power” of Recruitment Channels

Recruitment channel	Recruitment agencies	Web/Online	Word of mouth	Media channels	WINZ	Trade Fairs
Machine operators	2	0	1	1	0	0
Tradesmen	2	1	1	1	0	0
Unskilled	1	0	1	1	2	0
Technicians	2	1	1	1	1	0
Sales & service	1	2	1	1	0	0
Clerical	1	2	1	1	0	0
Management	1	2	0	0	0	0
Professionals	1	2	0	0	0	0
“Power score”	11	10	6	6	3	0
2 = most successful recruiting channel for that job category 1 = somewhat successful 0 = not at all successful						

Our research shows that the most frequently used recruitment method overall was word of mouth, but its power score of 6 was mid-rank. It was successful only for the lower job categories. Recruitment agencies were the most powerful by this measure with a score of 11. They were used for every type of employee but were most successful for tradesmen and machine operators, less so for management. Web/online was just behind recruitment agencies with a power score of 10. Media channels had mid-rank score of 6, were used frequently but were not at all successful for unskilled workers and machine operators. Work and Income New Zealand was excellent for unskilled workers and helpful for technicians but not at all useful for the other categories.

Turning it around and looking at the job categories, for tradesmen, media channels were used the most successfully. Professionals were best recruited by Web/online and recruitment agencies. Tradesmen were best recruited through recruitment agencies and word of mouth; managers by web/online and recruitment agencies; technicians through recruitment agencies and WINZ; sales & service by web/online; machine operators by recruitment agencies, unskilled workers through WINZ; and clerical staff by web/online.

11. Conclusion

It is apparent that many firms in the Rosebank Business Precinct lack basic managerial, computing and technology skills. Training can help enterprise survival, improve employee performance, raise bottom lines, and be rewarding to people for having more skill.

Pro-active leaders with the right leadership styles and vision are on the shortage list of most companies. Leadership is about originality, innovation, change and adaptation in new and original ways. Furthermore about seeking and defining opportunity and persuading people to change in non-coercive ways. Finally it’s about values and morals and transforming people and processes to productive effect. It also indicated that training should be targeted at leaders and management as well and advice should be given as to where and how to recruit the people with the right KSAs. At Rosebank, training challenges are primarily: leadership skills; computing infrastructure; business management; human resource development; market research; technologies and trade; and compliance with government regulations.

Local ontologies and epistemologies are two important “pillars” for leaders to build their leadership styles on. Leadership moves beyond the accepted body of knowledge of how to manage a process. Leadership may manifest itself through an idea either so compelling that it forces the formal structure to change permanently or until the idea has been pursued to its conclusion. Effective leadership is of necessity linked with positional authority in the current paradigm, and the application of leadership is temporary and specific to adaptation and change.

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A Fuzzy AHP Approach for Studying Determinants of Nurses' Turnover (Case Study: State-Owned Hospitals in Shiraz, Iran)

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Abstract

To achieve their own targets the organizations must be able to attract, maintain and protect human resources. The tendency to leave the job is one of the most important challenges that make it difficult for the organization to achieve these goals. The aim of current research is to identify and prioritize the effective factors on nurses' intention to leave their jobs in Shiraz state-owned hospitals. To this end, after reviewing the literature, the factors that influence on nurses to leave their jobs are identified and then the importance of each factor is determined by using FAHP. Further, the difference of the effects of various factors on male and female nurses' turnover is also studied. The results show that such elements like the management style, job identity, job importance, job security as well as salary and wages maintain high importance on nurses' turnover. Also it was specified that the resources adequacy, age, role conflict, and role ambiguity are less important in nurses' turnover. It is worth mentioning that the job and organizational factors are effective more on male nurses to leave their jobs while the effect of workplace and individual factors has no significant difference between male and female nurses' turnover.

Key words: Turnover, Fuzzy Analytic Hierarchy Process (FAHP), Nurses.

1. Introduction

One of the basic problems the organizations have is their employees' tendency to leave their jobs, particularly turnover of specialized and valuable personnel. Human resource managers and researchers consider leaving a job is costly and challenging and believe that when employees leave their jobs, the efficiency of the organization will decrease. For this reason, the employees' turnover has made researchers and managers to pay a special attention to the issue, so that numerous researches have been carried out to identify the effective factors on employees' turnover. Leaving a job can indicate high social costs are lost during employment, training, social capitals, replacement and large amounts of indirect costs and consequently it can have negative influence on morale and work efficiency of employees in the organization (Mitchell, 1982).

Considering the special characteristics of nursing, turnover in nursing that along with other medical professions is committed and responsible for maintaining life, providing health, preventing and controlling of diseases, treatment and rehabilitation of personal, family and society problems, is given a high importance in health and medical system (Fletcher, 2001). One of the issues related to nurses' turnover is the high costs of training. Today, one of the concerns in planning and budgeting is whether or not a project or plan is cost-effective to be developed or executed. If a work does not have the necessary and adequate efficiency in the society in terms of

economic and social conditions, certainly no manager or wise person and no planning body will incorporate it within its own plans. But there are some projects and plans that do not maintain economic efficiency but they are socially essential. It is obvious that the government invests in nursing and education of nurses, but if nurses who must serve for thirty years, quits his/her job after a few years, the economic resources of the country will be certainly subject to damages. Another important issue is that the number of nurses is less than hospital beds, and this shortage will impose double work on the nurses and will make them decide to leave their jobs.

The main aim of this paper is to identify and determine the level of importance of those factors that are effective on job turnover. Since in the present research, the opinions of experts, specialists and interviewees are used in a qualitative manner and by linguistic expressions, the analysis of the opinions of the statistical population by non-fuzzy processes may be subject to criticism because it ignores the definite methods of ambiguity related to judgments by individuals and changes of their values when converted into figures. Upon using fuzzy concepts, we can apply linguistic expressions in the form of statements with natural conversational language in order to analyze the indices (Ching *et al*, 2005). So in this research the fuzzy approach is used.

Considering the above and due to the importance of the nursing profession, in this research we will study and investigate the effective factors in replacement and turnover of nurses in Shiraz state-owned hospitals with a fuzzy approach and we will specify the importance of every individual factor. Also, we will make a comparison of the factors that influence on male and female nurses' turnover. We expect the authorities to consider the factors identified in this research in order to make necessary arrangements to reduce nurses' turnover and increase their tendency to continue service.

2. Literature Review

2.1. Employees' Turnover

Due to the importance of employees' turnover, many researches have been carried out in this regard (Shaw *et al*, 1998). Iverson (1999) argues that more than 800 researches have been done in this relation. Although many researches have been done in this area, unfortunately they have not been able to specify what elements could affect on employees who choose to leave their jobs (Lee & Mitchell, 1994). A voluntary turnover shall impose huge costs on the organization. These costs may be either part of direct costs including costs of selection, recruitment, provisional employees and time management, or part of indirect costs like the costs of training, employees' weakened morale, double work pressure on other employees and change of the quality of products and services presented by the organization (Dess & Shaw, 2001). Some capable employees leave the organization and are willing to work in another organization in order to find a better occupation when there are organizational changes and developments, for example when the organization has chosen to downsize itself (Jackofsky, Ferris & Breckenridge, 1986).

However there is no standard and specified framework for understanding the reasons beyond leaving the jobs, but there are some factors already identified that have influenced on the employees to leave their jobs and many of the organizations use these factors in order to decrease their employees' turnover rate (Kevin, Loan-Clarke & Wilkinson, 2004). These factors include job satisfaction (Hom & Kinicki, 2001), existing job opportunities (Kirschenbaum & Mano-

Negrin, 1999), organizational policies (Meyer, 2001), justice and fair in payment of salaries and rewards (Aquino et al, 1997).

In various researches, those factors that influence on employees' job satisfaction and provide the ground for preserving them in the organization or motivating them to leave their service, have been identified. These factors, in general, are divided into 4 groups including organizational factors, workplace factors, nature of the work and individual factors. The organizational factors that lead to employees' satisfaction and preserve them in the organization include salary and wages, promotions and organizational policies. The studies show that among organizational elements, salary is a determinant factor for job satisfaction, especially when this payment, from the employee's point of view, is just and fair. Also promotions and organizational policies are regarded as other effective organizational factors. Promotions including a positive change in salary, being under less administration, more challenges, more responsibility and freedom in decision-making, because promotion indicates the value of an individual for the organization, will increase the employee's morale. The existence of inflexible policies will provoke negative job feelings among the employees, while a flexible policy will set the ground for employees' satisfaction (Morrell, 2002; Harrison, Phillips & Hardgrave, 2009).

Among the workplace factors effective on job satisfaction and employee retention we can mention the administration process, team working and desirable work conditions. Wherever the administrators have a supporting and friendly behavior with employees, job satisfaction will also increase. The size of the group and the quality of personal interrelations within the group, play an important role in satisfaction of the employees. The larger the working group, the lower job satisfaction, because the personal interrelations will become more weakened and the feeling of unification is more faded away and it finally becomes difficult to identify individuals. Also the team working is regarded as a supportive-emotional system for employees. If people in the group have similar social characteristics, they will create an atmosphere under which job satisfaction is provided and in this way their tendency to quit their jobs will become more weakened. The more favorite working conditions, the more satisfaction for the employees, because in desirable working conditions, better physical and mental peace are provided for the individual (Tharenou, 1997; Harrison *et al*, 2009).

The nature and characteristics of the work will intrinsically play an important role in determining the level of job satisfaction. The contents of a job have two dimensions. The first dimension is the scope of the job which includes degree of responsibility, work measures and feedback. The wider these factors, the wider job scope, and this by itself will provide job satisfaction. The second aspect is diversity at work. The studies show that an average diversity at work is more effective. Broad diversity will create ambiguity and stress and on the other hand low diversity will create monotony and fatigue, finally leading to job dissatisfaction and employees' turnover (Cotton & Tuttle, 1986). Employees have always avoided the role ambiguity and conflict. Because if the employees are not familiar with the work they do and what they expect from it, they will be never be pleased and satisfied and this will set the ground for their turnover (Harrison *et al*, 2009; Cotton & Tuttle, 1986).

Just as workplace factors, organizational factors and nature of the work that are determinant factors in job satisfaction and employee's turnover, personal factors including individual's characteristics and personality also play an important role in this area. Those people, who generally have a negative attitude, always complain about everything related to the work. They always look for an excuse to complain. Age, seniority and job experience greatly impact on job

satisfaction. Those employees who are older and have longer records in the organization expect to be more satisfied with their work. There are also some specific personality attributes that will increase job satisfaction (Harrison *et al*, 2009).

Considering the studies carried out, there is an indirect relation between the degree of job satisfaction and work desirable conditions with job turnover. Researches also show that there is a direct and relatively powerful relation between access to alternative job opportunities and turnover (Ranayee, 1995). The study of effective factors on employees' turnover intention has revealed that such factors like job satisfaction, workplace, salary and wages highly influence the employees' turnover. Also it has been specified that independency may to some extent influence the employees' tendency to leave their jobs (Kakayee-Mavayee, 2008). The results of researches have shown that the organizational factors influence on job factors of the employees and the job factors are influenced by organizational factors and both these factors influence on employees' turnover (Harrison *et al*, 2009).

After studying the research background, the research analytical model is presented in Figures (1) in the Appendix.

2.2. Fuzzy Analytic Hierarchy Process (FAHP)

Fuzzy AHP methodology is designed to an alternative selection and justification problem by integrating the concept of fuzzy set theory and hierarchical structure analysis. The use of fuzzy methodology allows the decision maker to incorporate both qualitative and quantitative data into the decision model. For this reason, decision makers usually feel more confident to give interval judgments rather than fixed value judgments. In this approach, triangular fuzzy numbers are used for the preferences of decision support system for locating a new convenience store. Mikhailov (2002) applied the AHP method in conjunction with fuzzy preference programming approach for partnership selection problem in establishment of virtual enterprises. Yu (2002) incorporated an absolute term linearization approach and a fuzzy rating expression into an AHP-goal programming (GP) model for solving group decision making fuzzy AHP problems by employing the property of GP to treat a fuzzy AHP problem (Bu'yu'ko'zkan, 2004).

The outlines of the extent analysis method on fuzzy AHP (Chang, 1992, 1996; Zhu et al., 1999) can be summarized as follows:

Let $X = \{x_1, x_2, \dots, x_n\}$ be an object set, and $U = \{u_1, u_2, \dots, u_m\}$ be a goal set. According to the Chang's extent analysis method, each object is taken and extent analysis for each goal g_i is performed, respectively. Therefore, m extent analysis values for each object can be obtained and shown as follows (Percin, 2008):

$$M_{g_i}^1, M_{g_i}^2, \dots, M_{g_i}^m; i = 1, 2, \dots, n$$

where all the $M_{g_i}^j; (j = 1, 2, \dots, m)$ are triangular fuzzy numbers (TFNs) whose parameters are l , m , and u . They are the least possible value, the most possible value, and the largest possible value respectively. A TFN is represented as (l, m, u) . The steps of the extent analysis method can be given as follows (Bu'yu'ko'zkan, 2004):

Step 1: The value of fuzzy synthetic extent with respect to the i th object is defined as:

$$S_i = \sum_{j=1}^m M_{g_i}^j \otimes [\sum_{i=1}^n \sum_{j=1}^m M_{g_i}^j]^{-1}$$

To obtain $\sum_{j=1}^m M_{g_i}^j$ we perform the fuzzy addition operation of m extent analysis values for a particular matrix such that:

$$\sum_{j=1}^m M_{g_i}^j = (\sum_{j=1}^m l_{ij}, \sum_{j=1}^m m_{ij}, \sum_{j=1}^m u_{ij})$$

and to obtain $[\sum_{i=1}^n \sum_{j=1}^m M_{g_i}^j]^{-1}$ we perform the fuzzy addition operation of $M_{g_i}^j ; (j=1,2,\dots,m)$ values such that:

$$\sum_{i=1}^n \sum_{j=1}^m M_{g_i}^j = (\sum_{i=1}^n l_{ij}, \sum_{i=1}^n m_{ij}, \sum_{i=1}^n u_{ij})$$

Then, the inverse of the vector in equation is computed as:

$$(\sum_{i=1}^n \sum_{j=1}^m M_{g_i}^j)^{-1} = (\frac{1}{\sum_{i=1}^n u_i}, \frac{1}{\sum_{i=1}^n m_i}, \frac{1}{\sum_{i=1}^n l_i})$$

Finally, to obtain the S_i , we perform the following multiplication:

$$S_i = \sum_{j=1}^m M_{g_i}^j \otimes [\sum_{i=1}^n \sum_{j=1}^m M_{g_i}^j]^{-1}$$

Step 2: The degree of possibility of $v(S_i \geq S_k)$ where $S_i = (l_i, m_i, u_i)$ and $S_k = (l_k, m_k, u_k)$ (Chan & Kumar, 2007):

$$V(S_i \geq S_k) = \sup_{x \geq y} (\min\{\alpha_{S_i}(x), \alpha_{S_k}(y)\})$$

which can be expressed equivalently as follows

$$V(S_i \geq S_k) = \begin{cases} 1 & \text{if } (m_i \geq m_k) \\ 0 & \text{if } (l_k \geq u_i) \\ \frac{l_k - u_i}{(m_i - u_i) - (m_k - l_k)} & \text{Otherwise} \end{cases}$$

Step 3: The degree possibility for a convex fuzzy number to be greater than k convex fuzzy numbers $S_i; i=1,2,\dots,k$ can be defined by:

$$\begin{aligned} V(S \geq S_1, S_2, \dots, S_K) &= (V((S \geq S_1), (S \geq S_2), \dots, (S, S_K))) \\ &= \min(V((S \geq S_1), (S \geq S_2), \dots, (S, S_K))) = \min V(S \geq S_i) \end{aligned}$$

Assume that:

$$d'(A_i) = \min V(S_i, S_k)$$

For $k \neq i \quad k=1,2,\dots,n$ Then the weight vector is given by:

$$W' = (d'(A_1), d'(A_2), \dots, d'(A_n))$$

Step 4: After normalization (the elements of each column is divided by the sum of that column and the elements in each resulting row are added and this sum is divided by the number of elements in the row), the normalized weight vectors are obtained as follows:

$$W = (d(A_1), d(A_2), \dots, d(A_n))$$

3. Research Methodology

This survey is a descriptive and applied research. The following steps have been taken.

3.1. Sample

The population of the research includes nurses of Shiraz state-owned hospitals. After the initial survey on 30 nurses, the sample size was estimated at 180 nurses at the confidence level of 95%.

3.2. Designing the research questionnaires

In this research two questionnaires were used to gather data. The first questionnaire was designed to study the effect of recognized factors on turnover. The basis of responding is the 7-point Likert's scale and the second questionnaire was designed based on the concept of AHP in order to make a pair comparison of factors and elements. The basis of responding is shown in Table 1.

3.3. Validity & Reliability of research tools

In order to endorse the content and criterion validity, the university professors and experts were asked to express themselves about the items of each factor using the following terms: absolutely appropriate, appropriate, somewhat appropriate, inappropriate and absolutely inappropriate. Once the views collected, the validity of the questionnaire of our research was estimated at 0.917.

The factor analysis is also used to determine the questionnaire construct validity. The estimated KMO is 0.953, indicating the sufficiency of sample size. Factor loads were estimated more than 0.5, so the questionnaire has an acceptable validity.

The Cronbach's Alpha was calculated for both every single dimension and the whole questionnaire in order to confirm the reliability of the questionnaire. All Alphas were higher than 0.7 and this proved the acceptable reliability of the questionnaire. The results of calculations are shown in tables 2 and 3. SPSS and Excel applications were used to analyze data.

4. Results

4.1. Hypothesizes Testing

In order to examine the influence of factors identified to have contributed to the turnover of nurses, every factor and element has been attributed a hypothesis like hypothesis for individual factors. The factors and elements were then put to One-Sample T Test and the results are shown in Tables 4 and 5.

H_0 : Individual factors are not influential on the turnover of nurses. $H_0 : \mu \leq 4$

H_1 : Individual factors are influential on the turnover of nurses. $H_1 : \mu > 4$

According to the results, it is clear that all factors are influential on the turnover of nurses and we will discuss them in terms of their priority by using FAHP.

Moreover, in a bid to examine the significance differences between the influence of the four factors on the turnover of male and female nurses, we have used Independent-Samples T Test. To that effect, a number of hypotheses have been defined similar to those defined for individual factors.

H_0 : Individual factors are equally influential on the turnover of male and female nurses.

$$H_0 : \mu_1 = \mu_2$$

H_1 : Individual factors aren't equally influential on the turnover of male and female nurses.

$$H_1 : \mu_1 \neq \mu_2$$

The results indicate the influence of job factors on men and women is significantly different with these factors leading men rather men to leave job. However, workplace and individual factors show no significant difference in terms of their influence on the turnover of nurses. In addition, organizational factors further influence men as far as their turnover is concerned. The results are available in Table 6.

4.2. Evaluation of priority weights of factors and elements

4.2.1. Evaluation of priority weights of factors

Pairwise comparison between the four organizational, job, individual and workplace factors has been done with an AHP fuzzy approach and calculated by Chang's extent analysis method in view of determining the significance of factors contributing to turnover. The following weights are produced after geometrical mean of the fuzzy numbers of all samples is computed. The results are shown in table 7.

The results in Table 7 and FAHP steps help calculate the weights for the four factors.

Steps1: Evaluation of the value of fuzzy synthetic extent

$$\sum_{j=1}^4 M_{g_1}^j = (1,1,1) \oplus (0.97,1.26,1.61) \oplus (1,1.5,2) \oplus (0.74,1.14,1.59) = (3.76,4.90,6.20)$$

$$\sum_{j=1}^4 M_{g_2}^j = (0.62,0.79,1.04) \oplus (1,1,1) \oplus (0.72,0.96,1.36) \oplus (0.63,0.87,1.26) = (2.97,3.63,4.65)$$

$$\sum_{j=1}^4 M_{g_3}^j = (0.50,0.67,1) \oplus (.74,1.04,1.38) \oplus (1,1,1) \oplus (0.50,0.67,1) = (2.74,3.38,4.38)$$

$$\sum_{j=1}^4 M_{g_4}^j = (0.63,0.87,1.26) \oplus (0.74,1.14,1.59) \oplus (1,1.5,2) \oplus (1,1,1) = (3.42,4.52,5.85)$$

$$\begin{aligned} \sum_{i=1}^4 \sum_{j=1}^4 M_{g_i}^j &= (3.76,4.90,6.20) \oplus (2.97,3.63,4.65) \oplus (2.74,3.38,4.38) \oplus (3.42,4.52,5.85) \\ &= (12.89,16.43,21.08) \end{aligned}$$

$$(\sum_{i=1}^4 \sum_{j=1}^4 M_{g_i}^j)^{-1} = (0.047,0.061,0.077)$$

where S_1 , S_2 , S_3 and S_4 indicate job, individual, workplace and organizational factors, respectively.

$$S_1 = (3.76,4.90,6.20) \otimes (0.046,0.061,0.077) = (0.177,0.297,0.480)$$

$$S_2 = (2.97,3.63,4.65) \otimes (0.046,0.061,0.077) = (0.139,0.219,0.361)$$

$$S_3 = (2.74,3.38,4.38) \otimes (0.046,0.061,0.077) = (0.126,0.207,0.34)$$

$$S_4 = (3.42, 4.52, 5.85) \otimes (0.046, 0.061, 0.077) = (0.161, 0.273, 0.453)$$

Step 2. The degree of possibility of $V(S_i \geq S_k)$

$V(S_1 \geq S_2) = 1$	$V(S_1 \geq S_3) = 1$	$V(S_1 \geq S_4) = 1$
$V(S_2 \geq S_1) = 0.72$	$V(S_2 \geq S_3) = 1$	$V(S_2 \geq S_4) = 0.461$
$V(S_3 \geq S_1) = 0.673$	$V(S_3 \geq S_2) = 0.960$	$V(S_3 \geq S_4) = 0.73$
$V(S_4 \geq S_1) = 0.92$	$V(S_4 \geq S_2) = 1$	$V(S_4 \geq S_3) = 1$

Step 3. The degree possibility for a convex fuzzy number to be greater than k convex fuzzy numbers

$$V(S_1 \geq S_2, S_3, S_4) = \min(V(S_1 \geq S_2), V(S_1 \geq S_3), V(S_1 \geq S_4)) = 1$$

$$V(S_2 \geq S_1, S_3, S_4) = \min(V(S_2 \geq S_1), V(S_2 \geq S_3), V(S_2 \geq S_4)) = 0.461$$

$$V(S_3 \geq S_1, S_2, S_4) = \min(V(S_3 \geq S_1), V(S_3 \geq S_2), V(S_3 \geq S_4)) = .673$$

$$V(S_4 \geq S_1, S_2, S_3) = \min(V(S_4 \geq S_1), V(S_4 \geq S_2), V(S_4 \geq S_3)) = 0.92$$

Step 4. The normalized weight vectors

$$W' = (1, 0.461, 0.673, 0.92) \Rightarrow W_N = (0.330, 0.150, 0.220, 0.300)$$

4.2.2. Evaluation of priority weights of elements

Similarly, the views of respondents about the pair comparison of the elements are collected before the elements are attributed their weight through geometrical mean.

The normalized weight vectors of job factors: (0.202, 0.199, 0.108, 0.101, 0.052, 0.042, 0.071, 0.124, 0.101)

The normalized weight vectors of individual factors: (0.133, 0.279, 0.371, 0.217)

The normalized weight vectors of workplace factors: (0.237, 0.369, 0.185, 0.209)

The normalized weight vectors of organizational factors: (0.201, 0.211, 0.124, 0.144, 0.129, 0.052, 0.139)

4.2.3. Evaluation of final priority weights of elements

By multiplying the weight of each factor by that of the elements of the same factor, the final weight is calculated. The results are in Table 8.

5. Conclusion

The findings of this survey show that all 24 recognized factors are effective on turnover. Among four factors influencing the nurses' turnover, the job factors are the most important. The organizational factors, workplace and individual factors, respectively stand in the next orders. Among different parameters studied in this research, the management style as one of the organizational factors has the highest influence on nurses to leave their jobs. Also the job identity, job importance, job security and salary and wages are among those instances that highly influence the turnover of those working in this profession. In this study, it was specified that such factors like resources adequacy, age, role ambiguity and conflict do not have significant influence on nurses' turnover. Among other results of this research we can mention that job factors have more influence on turnover of male nurses. But the effect of workplace and

individual factors do not have a significant difference between male or female nurses' turnover. Also the effect of organizational factors on male nurses' turnover is more than female nurses.

According to the findings of this research, it is recommended that with establishing a correct way of participatory and supportive and not imperious leadership and administration and creating job security for nurses, we can set the ground for them to be more motivated to continue their service. Taking into consideration the difficulties of the nursing profession, it is recommended that the salary and wages paid to nurses to be increased. Further appreciating this valuable profession and recognizing its real position in medical professions will lead to retention of nurses in the working environment.

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Appendix

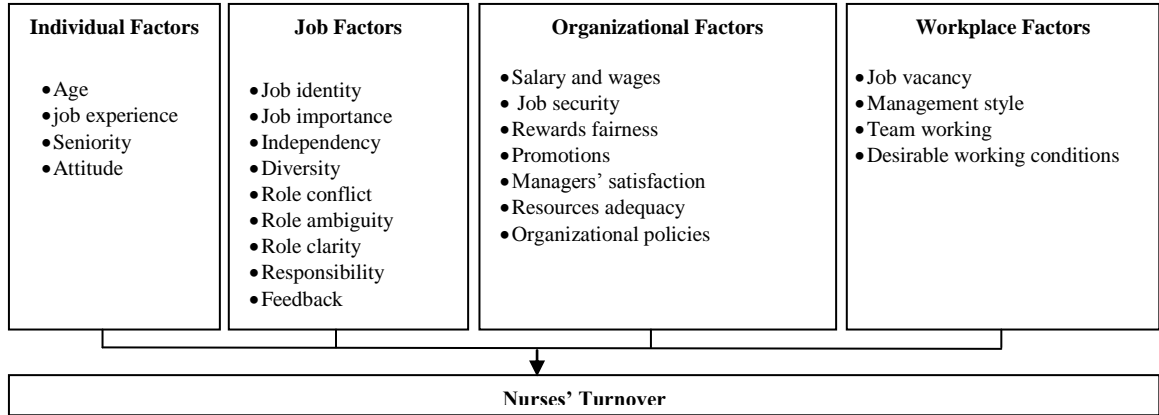


Figure 1: Research Analytical Model

Table 1: Linguistic Variables

Linguistic Variables	TFNs
Absolutely more important	(5/2,3,7/2)
Very strongly more important	(2,5/2,3)
Strongly more important	(3/2,2,5/2)
Weakly more important	(1,3/2,2)
Equally important	(1/2,1,3/2)

Table 2: Reliability Statistics

Scale	Cronbach's alpha
Questionnaire No. 1	0.967
Job Factors	0.932
Workplace Factors	0.880
Individual Factors	0.841
Organizational Factors	0.942

Table 3: KMO and Bartlett's Test

KMO	.953
Chi-Square	3862.535
df	276
Sig.	0.000

Table 4: Results of testing 4 factors

Factors	Mean	t	df	Sig	Result
Job Factors	5.6006	15.238	179	0.000	H ₀ Rejected
Workplace Factors	5.7667	17.171	179	0.000	H ₀ Rejected
Individual Factors	5.9236	20.258	179	0.000	H ₀ Rejected
Organizational Factors	5.8746	18.450	179	0.000	H ₀ Rejected

Table 5: Results of testing elements

Elements	Mean	t	Df	Sig	Result
Job identity	5.6667	12.922	179	0.000	H ₀ Rejected
Job importance	5.5556	10.768	179	0.000	H ₀ Rejected
Independency	5.1722	8.680	179	0.000	H ₀ Rejected
Diversity	5.7111	12.446	179	0.000	H ₀ Rejected
Role conflict	5.8000	14.409	179	0.000	H ₀ Rejected
Role ambiguity	5.5389	12.759	179	0.000	H ₀ Rejected
Role clarity	5.5833	12.302	179	0.000	H ₀ Rejected
Responsibility	5.7056	13.281	179	0.000	H ₀ Rejected
Feedback	5.6722	13.428	179	0.000	H ₀ Rejected
Age	5.4833	11.303	179	0.000	H ₀ Rejected
job experience	5.7778	16.346	179	0.000	H ₀ Rejected
Seniority	5.8556	15.230	179	0.000	H ₀ Rejected
Attitude	5.9500	16.639	179	0.000	H ₀ Rejected
Job vacancy	5.7000	14.617	179	0.000	H ₀ Rejected
Management style	6.0444	17.914	179	0.000	H ₀ Rejected
Team working	5.8056	15.518	179	0.000	H ₀ Rejected
Desirable working conditions	6.1444	18.644	179	0.000	H ₀ Rejected
Salary and wages	5.9944	17.285	179	0.000	H ₀ Rejected
Job security	6.0056	16.989	179	0.000	H ₀ Rejected
Rewards fairness	5.9889	17.675	179	0.000	H ₀ Rejected
Promotions	5.7389	14.702	179	0.000	H ₀ Rejected
Managers' satisfaction	5.4944	12.982	179	0.000	H ₀ Rejected
Resources adequacy	5.9278	15.568	179	0.000	H ₀ Rejected
Organizational policies	5.9722	16.144	179	0.000	H ₀ Rejected

Table 6: Results of testing significance differences between male & female nurses

Factors	Gender	Mean	Df	Sig	Result
Job Factors	Female	5.3980	178	0.015	H ₀ Rejected
	Male	5.9190			
Workplace Factors	Female	5.6886	178	0.343	H ₀ Accepted
	Male	5.8893			
Individual Factors	Female	5.7977	178	0.097	H ₀ Accepted
	Male	6.1214			
Organizational Factors	Female	5.7117	178	0.044	H ₀ Rejected
	Male	6.1306			

Table7: Geometrical mean of pairwise comparisons

	Job Factors	Individual Factors	Workplace Factors	Organizational Factors
Job Factors	(1,1,1)	(0.97,1.26,1.61)	(1,1.5,2)	(0.74,1.14,1.59)
Individual Factors	(0.62,0.79,1.04)	(1,1,1)	(0.72,0.96,1.36)	(0.63,0.87,1.26)
Workplace Factors	(0.50,0.67,1)	(0.74,1.04,1.38)	(1,1,1)	(0.50,0.67,1)
Organizational Factors	(0.63,0.87,1.26)	(0.74,1.14,1.59)	(1,1.5,2)	(1,1,1)

Table8: Final scores of elements

Factors	Elements	Factors weight	Elements weight	Final scores
Job Factors	Job identity	0.330	0.202	0.06666
	Job importance		0.199	0.06567
	Independency		0.108	0.03564
	Diversity		0.101	0.03333
	Role conflict		0.052	0.01716
	Role ambiguity		0.042	0.01386
	Role clarity		0.071	0.02343
	Responsibility		0.124	0.04092
	Feedback		0.101	0.03333
Individual Factors	Age	0.150	0.133	0.01995
	job experience		0.279	0.04185
	Seniority		0.371	0.05565
	Attitude		0.217	0.03255
Workplace Factors	Job vacancy	0.220	0.237	0.05214
	Management style		0.369	0.08118
	Team working		0.185	0.0407
	Desirable working conditions		0.209	0.04598
Organizational Factors	Salary and wages	0.300	0.201	0.0603
	Job security		0.211	0.0633
	Rewards fairness		0.124	0.0372
	Promotions		0.144	0.0432
	Managers' satisfaction		0.129	0.0387
	Resources adequacy		0.052	0.0156
	Organizational policies		0.139	0.0417

PROJECT MANAGEMENT INDEXES: A POLICY THRUST TO THE REALIZATION OF VISION 2020 IN HOUSING CONSTRUCTION AND DEVELOPMENT IN NIGERIA

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Abstract

The construction and development of housing could be best described as an antidote that propels the wheel of economic development of any nation. As we propose to transform the nation's economy to join the committee of twenty biggest world's economy in the year 2020, the issue of projecting project management practices as a policy thrust in insuring success in building implementation process must be emphasised to prevent the rate at which building construction projects fail, collapse or are abandoned in the nation's economy. The eminent problem is not only sensitizing public and private sector active participation in housing delivery and promoting the culture of funding building projects in Nigeria but to ensure building construction success by applying project management tools to the implementation process. The aim of this paper is to x-ray the role of project management in building construction and development in Nigeria, to identify project management constraining factors to successful building construction in Nigeria, to examine how these constraints affect the goal of vision 20:2020 long-time project in housing construction and development in Nigeria and finally, to find solution to the constraining factors that might jeopardise the realization of the orchestrated vision (if it is not the usual fake and shadow oriented mission) in building construction and development in Nigeria.

Keywords: Project Management , Indexes, Policy , Thrust , Realization , Vision , Housing Construction , Development , Nigeria

1. Introduction

The rate at which building construction projects fail, or are abandoned, and the collapse of buildings, some even under construction, is retrogressive in a developing economy like Nigeria. When there is a problem of building development failure, abandonment or collapse, everybody looks up to the engineers who in their professional pride and personality ego accept the blame but could not un-ravage the menace. The answer to project failure, abandonment, and collapse of building construction lies in the identification of the project management profession and according it a policy thrust status as the only apparatus to the solution of the glaring problem. Building development Project execution often involves substantial funds, the loss through failure or abandonment, has a crippling effect on the capabilities of the investors and the financiers because once a decision is taken to execute a project, scarce resources are tied down for a long time. The project may also be the only future hope of the client; therefore he may expect nothing

but success. Efficient project management is very important especially in the building construction industry which if ranked among other economic sectors may not fall above fourth in terms of inter-sector linkages. The importance of this sector as an agent of development is enhanced by its ability to provide gainful employment for the world's teeming population. According to Roy (2005) "it is evidenced that noticeable development and the aesthetic transformation of the environment is bound up with and predicated on the building construction industry". Building construction industry is a major factor in the social and political integration of the society and ranks as one of the major budgetary areas of developing economies (Nwachukwu, 2008). The building construction industry is proven to be the corner stone and bedrock of rapid economic growth of any nation (Bhavesh, 2006). The products of construction industry are desired mainly for the services which they help to create as most business, social, religious, economic, industrial activities etc operate on building infrastructure (Nwachukwu, 2008). According to Eric, (2003), "the industry is likely to remain a major area of development activity as the need for the provision and replacement of infrastructure become more important in the years ahead". As we have seen that building development sector of the construction industry is a catalyst, a rock, and the strongest base for rapid economic growth, to this end, it becomes very imperative to identify the face behind the mask of this ugly trend that for decades has been clouded in mystery. This issue is very important now if we critically analyze the quantum of resources wasted and its negative impact to the Gross Domestic Product(GDP) of the nation's economy. For the fact that building development process employs both professionals and non-professionals from all the fields of life, is an indication that this sector has a geometric progression effect on the economy. This means that success will reflect the sector as an engine of growth but failure a catastrophe. Therefore, seeing the indispensable role of building construction developments and the projected losses to the economy, we call on the national assembly to enact law that will include proper project management of building developments as a major policy thrust if we must actualize our vision 20:2020 economic dream. The major objective that prompted this research paper is to find out how building development projects in Nigeria can best be managed for success by identifying proper project management as the key. To examine the role of a project manager and the application of project management tools in planning, tracking resource smoothing in building construction projects to ensure success. To identify various factors constraining project management of building construction implementation process using systems theory in both public and private sector in Nigeria. And finally, to proffer solutions on how to reduce and if possible eliminate these success constraints in realizing building development projects as a sure road map to actualizing vision 20:2020 developmental target of the nation.

2. The Problem

The performance of any building development project (be it public or private) depends on the strategy for success adopted by the organization responsible for its implementation and execution. The strategies for success in any building project are implemented in the management of the Project Time, Cost, Quality and Material management related issues. In most cases, both public and private building construction projects are hardly completed on time, within cost, quality and material specifications. New buildings and newly rehabilitated or maintained infrastructure become decrepit and wrecked within a few months of commissioning despite the capital commitments on them. Most buildings or structures that collapse even during construction in Nigeria are not only public structures. As public projects in the construction industry contribute to the gross domestic product (GDP), so also does the private sector

construction. Any effort towards re-engineering the management strategies of the two sectors will make a very significant impact in the nation's rapid economic growth.

The major problem lies with the inability to accept and accord project management profession or practices its rightful position as a policy thrust and as the engine capable of transforming the fabric's of the nation's economy through successful implementation of building development projects.

3. Project Management

The semantics of the definition of project management cannot be fully comprehended without a brief attempt to define the two major components "Project and Management".

3.1 Project

According to Ntamere, (1995) a Project is a discrete package of investment or endeavour, policy measures and institutional and other activities designed to achieve a specific objective or set of objectives within a designated period and involving the commitment of resources. To Osuagwu,(1997) a project simply means a series of related activities with a goal, a beginning, and an end. Hemuka, in his wisdom in an unpublished lecture, described a project as a form of investment or development which entails the injection of scarce resources, and other materials including land with the aim of realizing its latent potentials in form of yield, or for satisfying other social or economic benefits. A project is simply defined as any sequence of events or process which entails the putting together of different resources towards the attainment of a particular goal. A project can be distinguished by the following characteristics:

- i. There must be a well articulated aim, goal or screened objective.
- ii. A life cycle with a starting and ending points.
- iii. It must have a network of timed and cost activities to produce a specified product.
- iv. The endeavour must be unique and non-repetitive and one time program.
- v. It may cut across many organizational lines.
- vi. Lastly, it may require the establishment of a special organization for its execution.

Building development is a good example of a project while project abound in all other sectors of human endeavour including Event Planning and Control.

3.2 Management

According to Thorncroft,(1965), management is simply defined as "planning, directing, controlling and co-ordinating of interest in land with the ultimate aim of achieving maximum benefit". In the view of Baridam, (2002), management literally means getting thing done through and with people, which has to do with the planning and directing of effort toward a common objective. The traditional functions of a manager reflect the activities involved in managing, planning, decision-making, organizing, staffing, leading, motivating and controlling. These functions constitute a circle of action in which each component leads to the next. Since building development project execution involves a consortium of various professionals; Architect,

Engineers, Quantity Surveyors, Builders, Estate Surveyors, Urban and Regional Planners, etc it will be disastrous if there is non to co-ordinate their interest and roles as major stakeholders, together with other non-professionals and the client. The man to do the job is the project manager.

Project Management involves the proper welding together of the activities of all these professionals and non professionals by careful selection, co-ordination, programming, budgeting, monitoring their activities during the developmental process. The sequential steps in project management include:

- i. Defining the objectives of the project.
- ii. Determining the task required to complete it.
- iii. Decide on important project milestone.
- iv. Determine the duration of projects component tasks.
- v. Plan the most efficient organization of tasks.
- vi. Allocate resources to tasks.
- vii. Re-evaluate tasks relationships and schedules and finally carry out the project.

Project management is therefore, justified as a means of avoiding the ills inherent in building development, the entire construction industry and production sectors of the economy and for which reasons most projects fail, collapse or are abandoned. The project managers role arises from the need for a technical expert to take charge, control of events on the project implementation process, someone who understands the intricacies of co-coordinating, controlling, and directing the efforts and activities of the professional team and the physical problems of implementation process with the needs in the decision making process. The success of any project implementation process in the construction industry in the public and private sectors depend largely on the project manager's concept on staff appointments and control, strict monitoring of time, cost, material, quality and environmental constraints. However, developing countries still suffer project failures traceable to project management factors.

4. PROJECT SUCCESS, FAILURE, ABANDONMENT AND COLLAPSE OF BUILDINGS

It is imperative to understand the above terms for us to really appreciate the functions of project management and the role of a project manager in actualizing project management goals.

4.1 Project Success

According to Cleland et al (1975), a project is termed successful if it passes four success test criteria i.e. the time criterion – completed on time; the cost or money criterion – completed within budget; the effectiveness criterion – completed in accordance with the original set performance and quality standards; and client's satisfaction criterion – accepted by the intended users or clients whether the client is internal or from outside the organization. The above success criteria call for successful project implementation by the utilization of proven management techniques of planning, organizing, directing and control. The issues on life cycle management, time management, conflict resolution and management, networking, contracts management, project choice and project quality are the key factors that contribute to project success. Effective project choice, for example, which results in a good project selection, greatly improves the probability of project success especially when the project is executed in accordance with project management implementation guidelines. The Critical Path Method (CPM) and Programme Evaluation and Review Techniques (PERT), for example, contribute a lot to project success as

they foster a great discipline through definition of project scope, time scale/schedule and cost. Empirical evidence, however, suggests that the importance of networking is far outweighed by the contribution of other project tools, which include work breakdown structure, life cycle planning, systems engineering, configuration management and status reports.

Networking contributes to better cost and schedule performance but not necessarily to better technical performance and better client acceptance. Perceived success is more adequately defined as meeting the project's technical specification or mission while at the same time attaining a high level of satisfaction on the part of the organization, clients, users and the project team (Beker et. al, 1988) . The end product must perform satisfactorily in service. This means that parties associated with and affected by a project should be satisfied at the same time that the good cost and schedule performances are realized. Effective project success therefore requires a judicious trade-off amongst the four tests or success factors of timeliness, completion within the budget, satisfaction in technical performance, and client or customer acceptance.

4.2 Project Failure

Project failure is illustrated by a failure to achieve the four success criteria and is manifested by the lack of application of proven project management techniques. It does not mean that the project may not have been physically completed but the question is when is the completion? Is there any time or cost overrun? Is the quality specified standard achieved? Can it stand the test of time? Can its potential be maximally realized? Is the client and end-user satisfied? If the client is proposing another project, can he insist on working with the same team? If the answers to the above questions are in the affirmative, the project is termed successful but if otherwise it means a failure.

4.3 Project Abandonment

Project abandonment is the unplanned suspension of the work progress especially at the execution stage such as refusal or failure to complete a contract after practical completion time period. Abandonment and failed projects which are more predominant in the public sector litter every gamut of the nations environment including government quarters, university campuses etc. The phenomenon cuts across many economic sectors including the construction, manufacturing/industrial and service sectors. There have been cases when non-functional, unusable or unserviceable projects have been commissioned as "completed". A monumental economic loss is incurred in terms of heavy cost overruns, periodic waste of resources and projects that metamorphose into bottomless pits gulping scarce resources with no concrete completion time in sight. Several Federal Housing projects initiated at different periods, Health facilities especially primary health projects and divisional hospitals across the length and breadth of this country, these and more are eloquent testimonies of project abandonment and /or failure. This phenomenon would have been avoided or drastically reduced if judicious applications of project management principles were accepted and applied. Various reasons were given for the abandonment of the most projects in Nigeria. They include: escalation of project cost due to inflation, difficulty in payment to contractors due to government bureaucracy, contractors performing below expectation, frequent changes in government, inability of sub contractors such as those in charge of electrification to adhere to schedule, increase in the scope of work, change in pre-contract consultants such as architects, poor or ineffective project finance arrangement, change in the original design, indiscriminate award of contracts without reference to funds availability, projects completed but technically unsound and unable to function, materials

scarcity, poor planning or shoddy work by architects, consultants, etc specification of costly imported materials, increase in contract sums, poor project definition in terms of project requirements for materials, equipment, personnel, finance and other resources, correlates of effective project management, insufficient working capital, the ailing economy and general inflation. The above examples and the reasons adduced for project failure and abandonment can be traced to a number of factors including poor or no project appraisal, top management lapses, defective contract agreements and awards, and gross failure to apply project management techniques. Contracts for projects are awarded without adequate project planning which includes the costing and scheduling as well as the method for successful implementation. A mismatch often exists between project design and objectives on the one hand, and the implementation capacity of the agency or organization or ministry on the other. There is often a defective control system, and in some cases, the system of monitoring and evaluation may be completely lacking. Where projects are awarded on political considerations little or no attention is given to the recommendations of project appraisals, assuming that such specific studies are undertaken.

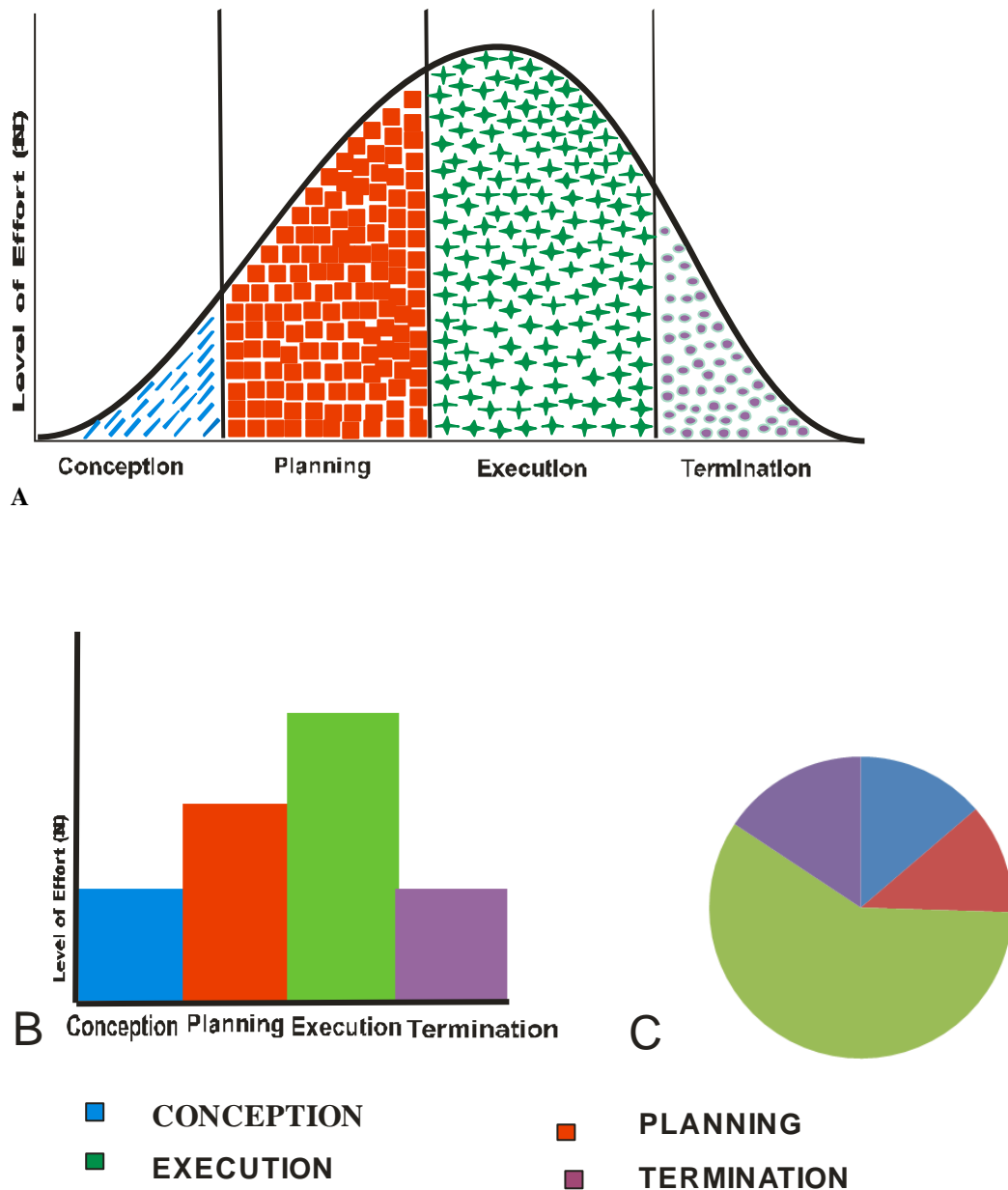
Budgetary constraints occur frequently given the short tenure of governments, reordering of priorities or diversion of fund as time progresses. Project abandonment or failure is the inevitable outcome of the above mentioned scenario. Should the project be included in the new set of priorities, tremendous cost and schedule over-runs are highly probable because of likely changes in resource requirements, escalation in input prices and changes in the organization or implementing unit. This is aggravated by the fact that the contractor may have to deal with different 'owners' or officials at different times during different stages of the project life cycle. Often, projects are completed not within budget, time, and technical specifications and within customer or client satisfaction. The projects are "completed" but cannot function. All the above causes of project abandonment will be minimized or eliminated completely if a trained project manager is in charge from the conception stage.

4.4 Building Collapse

The collapse of building infrastructure, though prominent in developing economies is a worldwide issue. Building developments collapse at the construction stages and in some cases after commissioning. Examples abound in recent times in Abuja and Lagos. The major problem is the unquantifiable resources wasted when building construction development collapses. If the answer to this endemic problem is proper project management, it becomes imperative to accord it the status of a national thrust.

5. PROJECT MANAGEMENT AND THE ROLE OF A PROJECT MANAGER IN ENSURING BUILDING DEVELOPMENT SUCCESS

The project manager make use of the life cycle concept as a valuable tool for better understanding of the stages of a project and likely resources required for its successful implementation. The life cycle is used to pictorially explain the rise and demise of organizational phases in building of structures, production line and sales life cycle of a product. It is also one of the instruments that help managers conceptualize the work and budgetary requirements of the project.



BAR AND PIE CHART REPRESENTING LEVEL OF HUMAN EFFORT (N) IN PROJECT LIFE CYCLE

Figure 1.1(A,B,C) Life Cycle Phases and Tasks Accomplished by Project Phases

Table 1: Life Cycle Activities

Conception Phase * Identify need	Planning Phase *Implement schedule	Execution Phase * procure materials	Termination * Train functional personnel
*Establish feasibility	* Conduct studies and analyses	* Build and test tooling	* Transfer materials
*Identify alternatives	* Design systems	*Develop support requirements	*Transfer responsibility
*Prepare proposal	*Build and test prototypes	* Produce system	*Release resources
*Develop basic budget and schedule	*Analyze results	* verify performance	*reassign project team members
*Identify project team	* Obtain approval for construction	* Modify as required	

Source: Project Management Handbook

The basic life cycle concept holds for all projects and systems. Life cycle management is heeded because the life cycle reflects every different management requirements at its various stages. In the beginning, for example, in terms of manpower- human resources-research personnel predominate, subsequently, their role diminishes at the planning stage. The execution which is more of concrete work features more of engineers and finally marketing and sales personnel become more important. In a product development, for example, performance would be assessed by the degree to which the product meets the specification or goal set for it. The detailed explanation of the activities of the four phases is reflected in table 1.0 above.

Table 2: Taxonomy of Strategic Versus Tactical Issues

		STRATEGY	TACTICS
1.	Level of conduct- level within the organization at which project implementation activities and issues are performed or addressed	Top management	Mid-to lower levels of management
2.	Subjective Objective Assessment- the activities concerned with assessing project goals or status.	Great subjectivity used at strategic level	Less use of subjective values
3.	Nature of problem- The type of problems, which arise and must be dealt with during the project implementation process.	Unstructured one at a time	More structured and repetitive
4.	Information Needs- the determination of the types and quality of information that is required for the project.	Large amount of information needed much that is external	Need for internally generated, specific information.
5.	Time horizons- The scope or time frame of management's vision in implementing and evaluating the project.	Long-term, but it varies by the problem.	Short-term and more constant.
6.	Completeness- The degree to which the scope of the entire organization is considered.	Covers the entire scope of the organization.	Concerned only with the sub organizational unit involved.
7.	Reference-Involves the source, or frame of reference, of the activity to be	The source of all planning in the organization is	Done in pursuit of strategic plans.

	considered.	original.	
8.	Detail-Concerned with how broad or specific problems are laid out and how generally they need to be addressed.	Broad and general.	Narrow and problem specific
9.	Ease of Evaluating-The ease of determining the efficiency and effectiveness of various activities involved in the implementation.	Difficulty, because of generality	Easier, because of specificity.
10.	Point of View-The assessment of the focus of viewpoint of the various actor's involved in the project implementation.		

Source: Project Management Handbook

To enhance project success the following strategies or guidelines are recommended; As much as possible adopt the project management approach, project objectives should be clearly spelt out, clear objectives create the conditions for the attainment of good results, project requirements should be clearly defined in terms of resources, time scale, technical approach and the required technology.

The operators should develop an ability to manage change – which is a major objective of the project management approach. Plan soundly, good information flow is necessary, there should be a clear definition of responsibilities, project selection, location and implementation should not be politicized, there must be a clear definition of project scope and knowledge of factors that can affect the project scope and pay critical attention to project financing.

The time is ripe for increased application of the project management approach in Nigeria in both the private and public sectors. The application will result in effective project selection and execution. The use of task forces to handle specific problems is a pointer to the need for the adoption of project management strategy. Agencies such as NDDC, ITF are built around the project management idea. Projectization (application of project management concept) of certain projects will reduce a lot of bureaucracy and redundancy in many organizations. Moreover, the project management elements of planning, scheduling and control will introduce the much needed discipline for the satisfactory realization of project goal.

In general, life cycle events vary with phases. Project size is quite different across the phases. The planning and the execution phase have by far the largest project teams. The level of bureaucracy parallels this pattern, with the greatest level corresponding to the greater size; the organizational climate is such that in the early and later phases it is more participative while it is different in the middle phases. Conflict entirely decreases consistently across the phases. Job satisfaction seems to be highest for the smallest, more organic organizations and lower for those organizations mostly mechanistic in nature (Adams 1990). In Process, involving initial strategic actions and supporting tactical activities, there are further implications for project performance based on a consideration of strategic and tactical issues. Table 2.0 shows breakthrough of strategy and tactics by high and low scores depending upon the level to which these issues were addressed in the project implementation. A high “score” on strategy would imply that the strategy is well developed and effective, as in the similar case with tactics. This value could be assessed either in a subjective or intuitive manner.

6. Project Success Implementation Factors

According to Clayland and Kings, (1975) the process of building project implementation involving the successful development and introduction of projects in the organization, presents an ongoing challenge for managers. The building implementation process is complex, usually requiring simultaneous attention to a wide variety of human, budgetary and technical variables. A project manager is often faced with difficult job characterized by role overload, frenetic activity, fragmentation and superficiality. A project manager in spite of all these has the responsibility for successful project outcomes without sufficient power, budget or people to handle all of the elements essential for project success. In addition, projects are often initiated in the context of a turbulent, unpredictable, and dynamic environment. A project manager would be well served by more information about those specific factors critical to project success. The project manager requires the necessary tools for him to focus attention on important areas and send different priorities across different project elements. It can be demonstrated that a set of factors under the project managers control can have a significant impact on project implementation success. The project manager should be better able to efficiently and effectively deal with many demands created by his job, channeling his energy more efficiently in attempting to successfully implement the project under development. His controlling ability is demonstrated in the ten key factor model of the project implementation profile below.

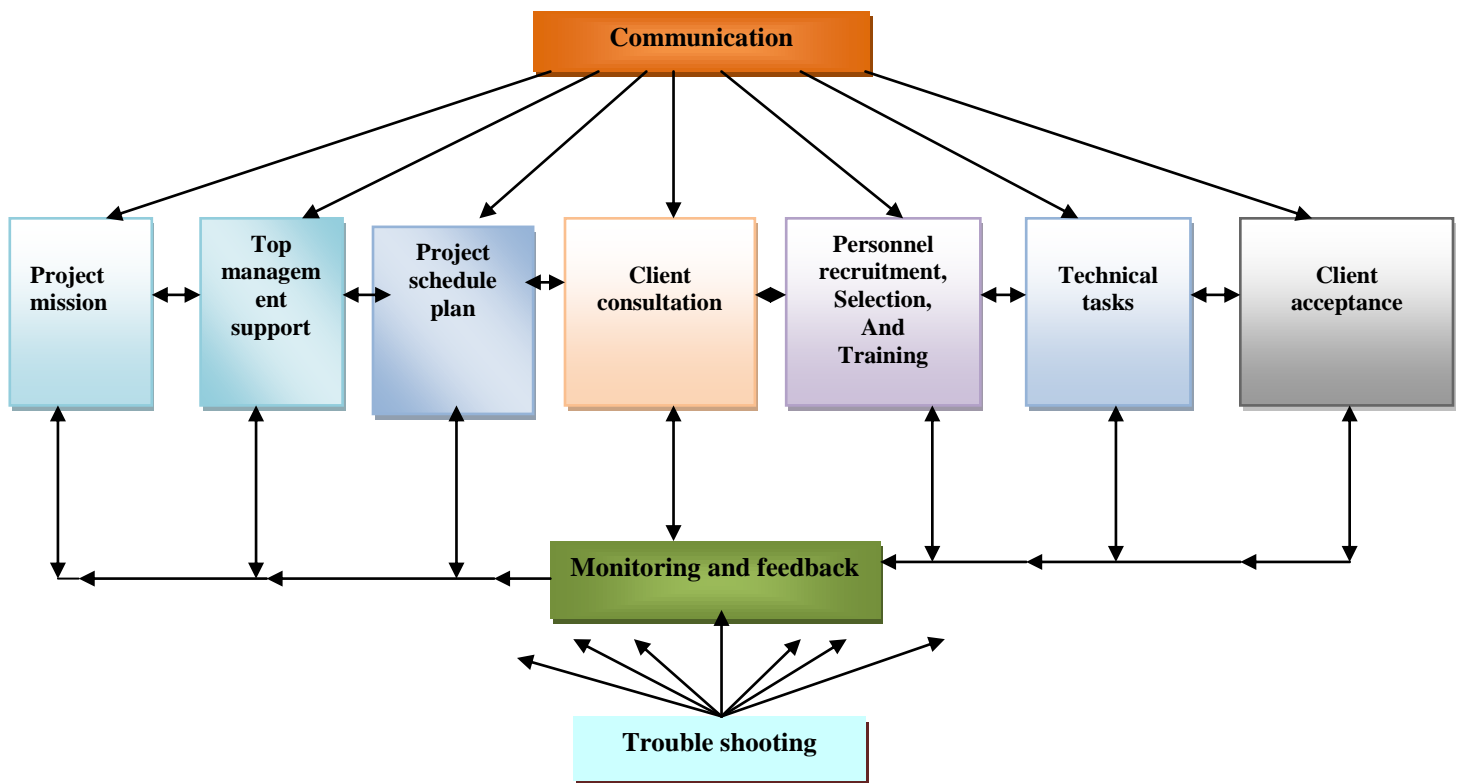


Figure 2.1Ten key factors of project implementation profile
Source: Project Management Hand Book

Slevin et al (1986) studied many projects in their bid to evaluate factors that constraint success in project management; they articulated many factors but narrowed them down to what they christened ten key factors of project implementation profile as reflected pictorially above.

7. PROJECT MANAGEMENT TOOLS

Project management tools are mainly planning and implementation tools at various stages of the project life cycle which is expected to foster success in the implementation process. At the conception stage, an effective and efficient appraisal is a very strategic and significant tool used in establishing the feasibility and viability of a project proposal. It helps us to determine investment alternatives, how much to invest, how to invest, where to invest, Cost benefit analyses of economic and social proposals, spillover advantages and disadvantages of project proposals, the rate at which a prudent investor could make profit with time, determine time value of present financial expenditure against future expected income and the environmental impact assessment of project proposal etc. Appraisals is an instrument used in processing social and economic dreams to a tangible and realizable aims and objective which must be unique in nature. Some of the tools as we know include: The Net Present Value (NPV), Internal Rate of Return (IRR), The Net Terminal Value, The Annual Charge, The Annual Sinking Fund and Cost Benefit Analysis.

7.1 NETWORK PLANNING

Network planning is one of the most significant project management techniques used in planning, scheduling, and controlling a project. Planning technique is vital at all the stages of a project life cycle. It is a continuous process because of the prevailing need to keep track of progress changes, delays or changes in technical conditions. Delays and changes in project implementation are controlled by the application of critical path methods. They enable management to cope with the complexities, messes of data and tight deadlines characteristic of many industries and their environment that is highly competitive.

It is important to know at this stage that Planning and Scheduling are not synonymous. Planning is the establishment of objectives, definition of the content of the project and the determination of the relationships between the jobs or activities. On the other hand, Scheduling is the development of a time table that puts time estimates next to the plan and indicates when activities are to be accomplished. That is, time estimates, timing calculations and job scheduling are involved.

7.2 PERT AND CPM NETWORKS

Programs Evaluation And Review Technique (PERT) and the Critical Path Method (CPM), The Bar and Gantt charts used in scheduling, tracking, resource smoothing and performing time and cost-trade-offs at the execution and termination stages are the best tools for project planning and control. The PERT and CPM techniques help to determine cost-effectiveness as a way to expedite a project knowing that certain projects can be rushed for a price. This method has been successfully and advantageously used in developed economies for planning large scale and complex projects and we strongly believe that it can be an antidote to transform the building development sector if project management is given a policy thrust status in Nigeria. PERT was first used in the 1950s to manage the Polaris Missile Program. Since then the technique has been successfully used by private and public industries and sectors such as; construction of complex building structures, shopping, office and subways, major maintenance efforts, pilot production

runs and the introduction of new products. Whenever faced with complex situations, a manager should use these techniques, their cost is less than the benefits. The two types of PERT are the Deterministic and the Stochastic.

Deterministic PERT assumes that all tasks that make up a project are sufficiently routine in the sense that the time needed to complete each tasks is known with reasonable certainty. Stochastic PERT on the other hand is often used to plan either research or one-of-a-kind development project because of the valuable insights gained by the very act of identifying intermediate milestones and establishing logical process among them.

7.3 An example of a project Network showing and a typical Gantt Chart

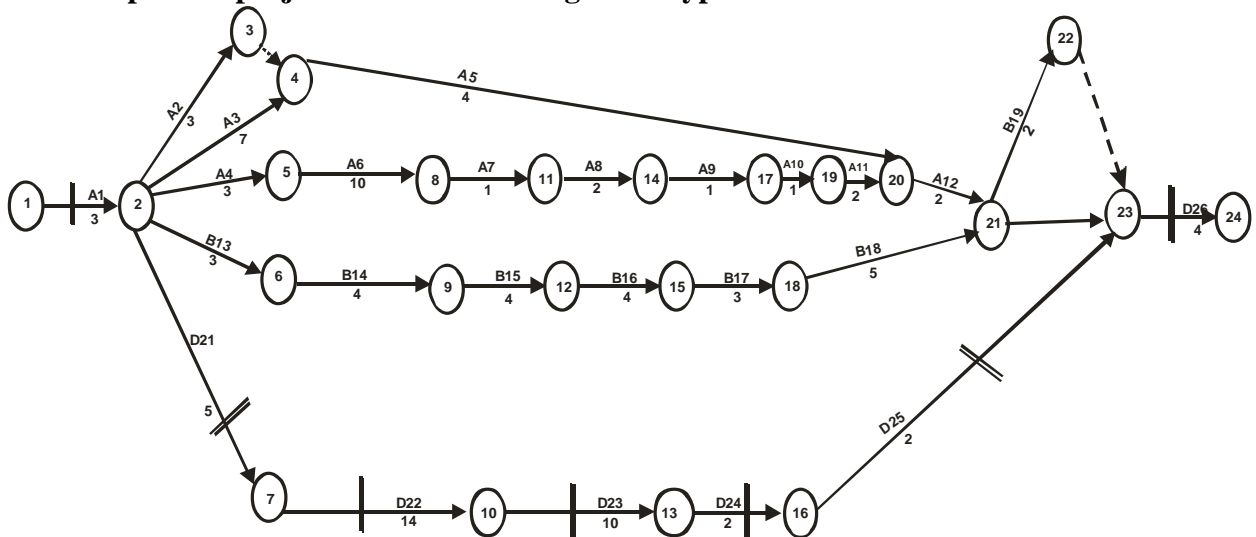


Fig. 3.0A: Network Diagram for Projects X and Y (Planned Estimate)

Source; Akpan, E.O.P (2009) Inaugural Lecture (FUTO)

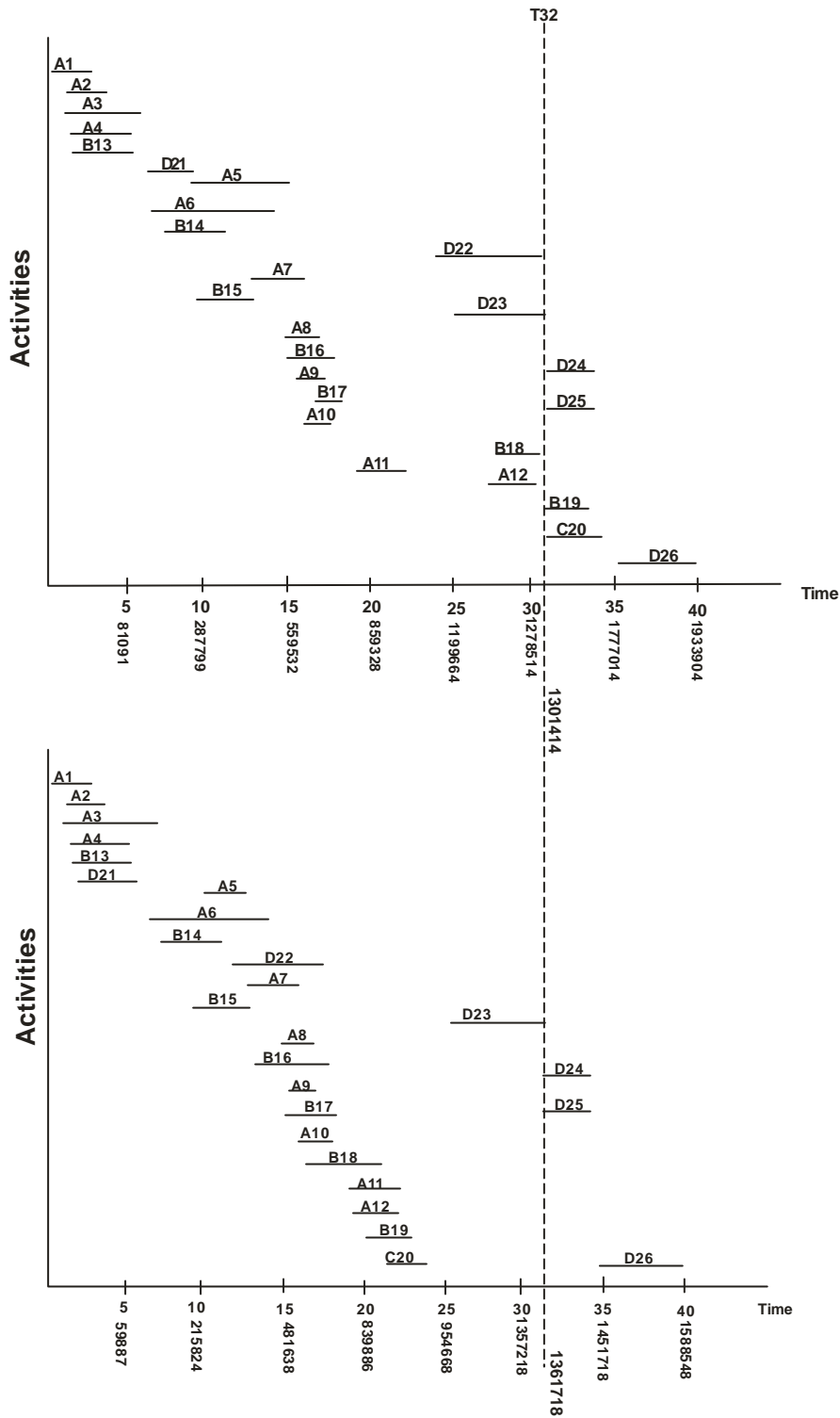


Fig. 3.0B: An Example of Gantt Chart for Actual Project Performance.

Source; Akpan, E.O.P (2009) Inaugural Lecture (FUTO)

8. CONSTRAINING FACTORS TO PROJECT MANAGEMENT SUCCESS IN BUILDING DEVELOPMENT IN NIGERIA

Having known the implication of project failure and abandonment in the nation’s economy, we hereby highlight some major success constraints to building development project management seeing the sector as a system. The model below consist of direct and indirect variables as consisting critical factors to be watched carefully if a building development must succeed. The direct variables (four in number) are Time, Cost, Quality and Materials while the indirect factors (five in numbers) include; environmental, client, design, construction and project management. The arrows in the model show how the variables interrelated and are intra-dependent. The variables are also inter and intra-dependent in the system. To this end, it shows that any factor that affects a system variable will invariably affect every other factor whether direct or indirect.

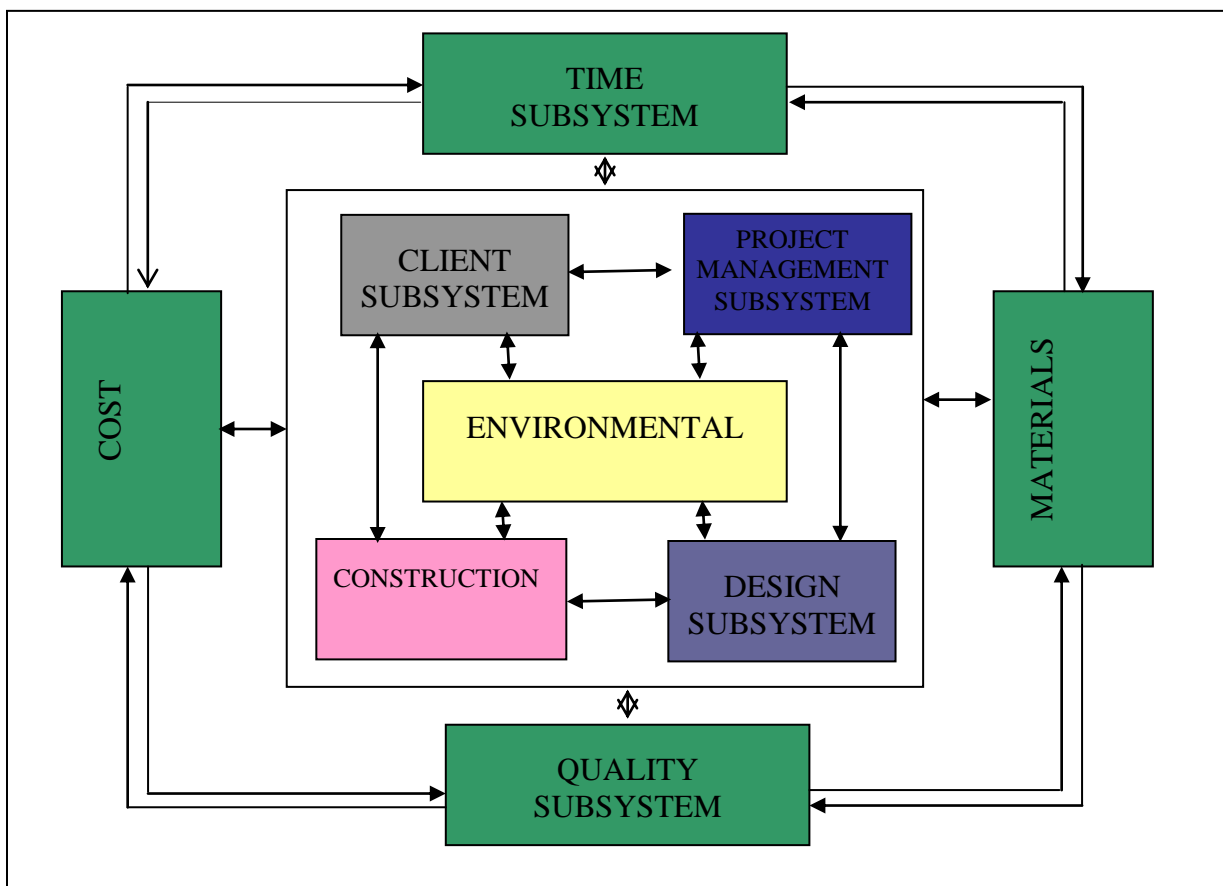


Figure 4. The Construction Project Management Success Interactive Model Source: Composed by the Authors

The direct and indirect variables identified as major factors constraining project management success of private and public sector construction in Nigeria are;

8.1 COST FACTORS

Frequent changes in the design by the client and other variations with their financial implication, fluctuations in materials supply, labour and plant cost with their inflation implications, construction delays caused by the client, project team, and or weather elements, unforeseen circumstances – likelihood of unexpected events in the employers risk area, inadequate or incomplete design and documentation, initial cost estimating errors, attitude of project team and client towards cost control, forecasting the cost effect of a decision before implementation, high cost of financing projects (high interest rates), bribery and corruption that is ravaging the business culture in Nigeria, inadequate established and systematic cost control procedure for the project design and construction, computers packages used for cost control rarely employed in tracking complex projects, critical and crucial issues like personnel motivation that will affect cost are not usually considered and clearly specified, inadequate cost planning at the planning stage of the implementation process, minimising specialist work, promoting prime cost and provisional sums or specialist work not well defined early in the project , minimising claims through the understanding of contract conditions, inability to apply cost control measures using engineering analysis during the implementation process.

8.2 TIME FACTORS

Inadequate strategies in planning and re-planning of time schedule for critical activities, attitude of project team members and client towards delay (or project duration), the delay effect of every decision forecasted before implementation, clear consideration and specification of crucial factors affecting time at design stage, non utilization of modern project management techniques for time control (critical Path method, bar chart, line of balance etc), re-adjustment of work scope during the execution stage of the implementation process, negligence of progress report based on delay in executing some critical activities, variations and change orders and their effect on time schedule, unforeseen contingencies and their effects on time schedule, reports prepared routinely stating the work executed and time required for executing the outstanding work for the activity, delay in payment for work done (e.g. Lack of funds, etc), delay on the part of the consultants in issuing instructions and approvals etc, delay on the part of the client in giving approval for supplementary activities, use of intermediate milestones in work schedule, shortage of qualified workers and construction materials and their impact on activity time schedules, disagreement between the contractor and the client and its time implications, unrealistic contract duration and unpredictability of weather in strict implementation of work schedule timely.

8.3 QUALITY VARIABLES

Ambiguous specification in the design that affects quality management during project implementation process , inexperienced and incompetent contractors and sub-contractors that will want to sacrifice quality at the altar of time, inadequate inspection of daily activities on construction site by the project manager and his professional team members, inadequate quality control procedure in design organisations at appraisal stage, inadequate quality control procedure in contractor's organisations during the execution stage, inadequate quality control procedure in client's organisations in testing during materials inspection, inadequate equipment to achieve specified quality test on some local materials, underestimation of adequacy of skilled craftsmen and its quality implications at the execution stage, the use of poorly trained technical managers and supervisors especially in public projects and the quality implications of such actions in project success, attitude of project team members

and client towards quality throughout the project life cycle, the inability of the project team to clarify the specification of critical and crucial issues affecting quality at design, quality control documentation not often referred to during construction process, designing to reduce number of trades and avoiding shared responsibility for achieving performance and quality targets, compromising standards on quality specification during Inspection especially by public officers, use of substandard materials in facility installation and its quality implications, lastly, maintenance period of six months is not enough to encourage the use of quality materials by public contractors.

8.4 MATERIAL MANAGEMENT FACTORS

Frequent change orders or variation in material procurement and its implications on activity time, cost and quality, incomplete detailed information on materials installations and functional life of the materials, delays in material procurement caused by the client, project team, and or contractors and its implications on construction cost and time, lack of detailed information on weather effects of some construction materials and their implication as regards installation, duration, maintenance capabilities especially foreign procured materials, effective and efficient management of procured materials on site, inadequate or incomplete specification on design and documentation process, initial cost estimating errors on materials type, quantity and quality, attitude of project team and client towards material control and monitoring on site, forecasting the inflation effect on materials at the conception and planning stages, high cost of basic building materials and their effect in causing construction projects delays and abandonment, bribery and corruption as they affect cost of materials procurement, inadequate established and systematic materials cost control procedure for the project design and construction, computers rarely employed for measuring the weight and quality of materials, critical and crucial issues like personnel motivation that will affect materials design, procurement and storage are not usually considered and clearly specified, lack of adequate information on health implications of some materials on end users and handling during installations, minimising specialist work, promoting prime cost on provisional sums for some materials, specialist work on some material installation are not well defined early in the project, clarity of design brief and minimum design gap on materials, ability of design to achieve material management economy and finally, putting into consideration cost control on material specification during design stage.

Indirect Factors are as follows.

8.5 ENVIRONMENTAL FACTORS

Instability of government and her policies, unstable exchange rate and inflation, social factors like ethnicity, environmental crime rate or social and religion instability in a region, nepotism, hoarding, materialism, and quota system as they affect building construction activities in Nigeria, technological factors like the use of modern equipment and method of building construction in an environment, scarce resources like local building materials and dependence on imported materials and desire for foreign labour, political factors like Loyalty to government bad policies, government opposition party platforms, foreign loan, lack of public participation in policy decision making, bureaucratised, formalised, rigid and redundant rules, inadequate management infrastructure (shortage of skilled experienced technical Managers, use of computers, low literacy level and current management techniques).

8.6 CLIENT FACTORS

Selection of competent project manager and project design team like Architects, Engineers, Quantity Surveyors etc, provision of robust brief by the client in negligence of the advice of the designers and the project manager, absence of top management support and motivation of the building team members, inability to establish firm and clear objectives as regard cost, time and quality standards, ensuring available finance for the project and prompt payment for work executed, inability to give the project manager free hands to select competent and experienced contractors and sub-contractors during the execution stage especially for public projects, allowing minimum bureaucracy in decision making, non-interference with the workings of the designers and contractors, clients attitude towards budgetary and schedule controls like fixed time with liquidated damage clause , clients attitude towards quality standards and insistence on well established Quality control procedures, clients insistence on details of design and documentation to be completed before Site work, bribery and corruption of clients' representatives in public building projects, good working relations, timely client feed-back on approvals and regular meetings and reviews, lack of information on clients' needs and lack of sustained interest and ability to manage conflict with organisation.

8.7 DESIGN FACTORS

The ability to choose the right team of designers and their prompt and adequate remuneration, adequacy of authority/freehand given to the designers, adequacy of planning effort using modern planning techniques like critical path method, bar chart, etc by the design team, realistic and thorough definition of Scope of project before site works, buildability of the design (over design, or complex design), commitment and attitude as a crucial responsibility of the designers in achieving cost, schedule and quality objectives, giving change orders (variations) without thorough consideration of effects on project objectives, specification of unsuitable and foreign imported materials, recommendation of unsuitable contractors and sub-contractors especially where the designers assume the responsibility of project management, allowing communication gap between the project team members, assessing the managerial competence of the Architect if he leads the design team, ability to reduce conflict within the design team, distance and location should not prevent the designers in attending to the project and finally, the design team's timely response to request for information on the clarification of an aspect of the design.

8.8 CONSTRUCTION FACTORS

Experience and reputation of the contractor, adequacy of pre-tender planning for estimating cost and time, familiarity with the geographical area based on type of work, regularity of payment for work done, pre-construction planning using modern techniques like (critical path method, Bar chart, work breakdown structure etc), adequacy of managerial competence and skilled staff, making good allowance for contractor's profit in contract negotiations, adequacy of contractor's equipment for the size of project in view, adequacy of the contractor's cost and time schedule control system at the execution stage of a building work, adequacy of the contractor's quality control system and reducing the rate of bribery and corruption within the contractor's organisation, ensuring adequate cash flow of the contractors activities and establishing the use of planning and control measures as a focal point for project implementation success.

8.9 PROJECT MANAGEMENT FACTORS

Competent project manager appointed early enough with adequate authority to match responsibility, effective and efficient use of project techniques for overall project planning and performance control, motivation of project team members by the project manager, use of modern project management technique for cost control, use of modern project management techniques for quality control-total quality control, robust/unambiguous specification, use of modern project management techniques for time control-CPM, bar chart, line of balance etc, efficient and effective use of management information systems especially the computer for effective variation management, project managers development of sense of mission and commitment among project team members from onset, project manager's co-ordination and maintenance of good relationship with the client, design and construction team and keeping changes under control, and finally, stressing the importance of meeting cost, time and quality goals and developing realistic cost, time and quality estimates and goals.

9. HOW THESE CONSTRAINTS AFFECT THE ECONOMY AND MAY AFFECT THE VISION 20:2020

9.1 The Earned Value Analysis (EVA) Model

Earned Value Management is a methodology for determining cost and schedule performance of a project by comparing the "planned" work with "accomplished" work in terms of monetary value assigned to the work. Earned value analysis then became the industry standard method of measuring a project's progress at any point in time, forecasting its completion date and final cost, and analyzing variances in the schedule and budget as the project proceeds. It compares the planned amount of work with what has actually been completed, to determine if the cost, schedule and work accomplished are progressing in accordance with the plan. In a nutshell, Earned Value Analysis is a method of showing the progress of a project by comparing the actual result of each activity within the project against the plan (budget and schedule). Using this data, the earned value indicators show whether or not the project/task is on schedule and whether or not it is meeting the cost plan. As the work is completed, it is considered "earned". Earned value is therefore the missing link between cost reporting and cost control. EVA was widely publicized and accepted in the industry and led to the emergence of Primavera software package which is built on its methodology. As stated earlier, building development employ professionals and non-professionals from all fields of human endeavor who earn income directly or indirectly from a building development process, therefore every economic sector benefits from its services. From the perception of EVA, every kobo earned and spent in Nigeria contributes to the Gross Domestic Product (GDP), the same include every service directly or indirectly rendered for economic and commercial activities in the nations environment. An economic analysis on this shows that building development activities has a geometric impact on the economy and is highly rated as a major input in the calculation of GDP. In our view, since the issues that border on building development is so strategically important, the need therefore to ensure success in the development of this sector is indispensable.

10. Solution to the Constraining Factors to the Realization of Vision 20:2020 in Housing Delivery in Nigeria

As the new fiscal policy compels government ministries, departments and agencies to return unspent funds to government treasury at the end of every year - even as major projects beg for attention - the need for the country to institutionalize project management as a solution to the economic re-engineering process has become an issue that demand its recognition as a national thrust policy. According to Babayeju, (2009), due to poor project management practices, budget implementation has been a major challenge to the development of infrastructures in Nigeria.

The project management culture in Nigeria is quite low, especially in the public sector. However, the private sector has increasingly embraced project management, and this has accounted for its growth over the decade. The need for a paradigm shift necessitated the organization of the just concluded national project management conference (ProMaCon '09), which is aimed at propagating best practices and building capacity needed for national development.

With the successful hosting of the first ever National Project Management Conference and participation of government decision makers, we have succeeded in bringing awareness to the inevitable role, which project management plays in the development of societies, just as it has been done world over.

There is a critical need to build competence, most especially within the public sector, to equip the appropriate agencies and personnel with the needed knowledge, skills, tools and techniques to successfully deliver projects within time, budget and specifications. With concerted efforts both private and public, coupled with the increasing realization of benefits of project management to organizations and its indispensable role in successful delivery of projects for national development, the institutionalization of project management is on course, according to Mr. President. Permit me to quote him: "As we begin implementation of the Vision 2020 in January 2010, project management will, therefore, play a significant role in the planning, execution, monitoring, control and closure of the many projects that have been identified during the articulation stage as paramount in attaining the lofty goals of the vision.'

There is need to institutionalize project management best practices and to emphasize on its indispensability as the solution to poor implementation culture in Nigeria. It would seem that beyond the budgetary process, most agencies charged with the execution of projects, both private and public, are consistently at a loss on how to effectively execute or implement such projects in line with initially projected goals.

11. THE IMPERATIVES OF PROJECT MANAGEMENT

Project management has the capability of contributing to the economy of Nigeria in the following ways: reduction in building development cost, increase in national income which served as an antidote in propelling the wheel of economic growth and development in all the sectors of the nation's economy, increase in foreign exchange earnings and high profitability in the industrial sector.

11.1 Reduction in Project Cost

The effective and efficient project management of building developments in our economy will bring about reduction in the waste of resources (men, machine and material) and enhance effective flow of the developmental process. As building development is seen as the engine of economic development in the country, it will help to some extent in solving unemployment problem of the nation.

11.2 Increase in National Income

The reduction in Liquidation Rate has increased the commercial activities of the consumer and the investors in building development, because the construction of a building facility development means the consumption of the output of one company and also an input to another enterprise as a structural base for business facilitation. Example, for there to be a building construction, some of the material inputs like cement, iron, roofing components etc will come from the output of some production ventures who must sell to remain in business. Each company has staff of all categories that earn wages, if building construction and development is allowed to suffer undue failure as a result of poor project management practices, at a time there will be no production of the materials and no income to staff whose income individually contribute to an increase of the national income. The receives of wages and salary or profit of this activities and the total flow of these goods and services produced over a given period of time made up the national income. If project management is made a policy thrust, the success achievable in the building sector and other sectors of the economy will lead to a rapid economic growth and a better standard of living for the country as we look forward to joining the wagon of the committee of the best world's 20th economy in year 2020.

11.3 Economic Growth and Development

The increase in successful implementation of public and private building developments is capable of igniting value light to economic and commercial activities in Nigeria which will lead to reduction of unemployment and increase in payment of tax to government thereby increasing growth and development of the nation. We know how much money that will enter government coffers from all manner of taxes from site acquisition to various property taxes.

11.4 Increase in Foreign Exchange Earning

The development of building infrastructure encourages intra and external technical manpower, material export and import of exportable goods and services which in turn increase the foreign exchange earning of utility countries.

11.5 High Profitability

A good project management system will lead to reduction in the waste of resources and increase commercial activities thereby increasing the profitability of the building development organizations like the financial and mortgage institutions, their employees and the country as a whole.

From the angle of negativity: project management has not been able to be efficient and effective in the country due to the inability to see its strategic role in assuring success in all the sectors of the economy including building development.

12. Conclusion

Project management has been described as the secret weapon of developed nations. Its methodologies, approach and principles have helped such world powers as United States of America guide their development processes; and in the United Kingdom where the office of government commerce devised the Prince II Methodologies to grow their economy. Therefore, in driving our developmental targets, it has become imperative to institutionalize this world acclaimed solutions vehicle into our economy for the achievement of our nation's development goals. One of the major problems of project management in Nigeria is corruption. The question is. how do we intend to tackle that? If project management is a policy thrust, it will create rules for everybody to play by.

As earlier stated, all the issues that relate to construction sector are very relevant and indispensable in the economy.

Construction sector is seen as the pivot on which every other activity in the economy rotates on. The significant importance of this sector is evidenced in the fact that every business or services of diverse kinds must have a shelter and a location in the environment. Therefore, any effort towards reducing or eliminating the noticeable and silent constraints that directly or indirectly affect project management success in this sector is a right step in the right direction. The stake holders in any complex building construction project are numerous and varied with parochial objectives different from the main objectives of realising the cost, time, quality and materials targets of the proposed construction projects. Systems theory was chosen as a framework in analyzing the constraints to building development projects because construction sector is one of the most complex sectors in the economy. The constraints to success of project management in the development of building infrastructure consist of indirect factors divided into five systems of environmental, client, design, construction and project management; and direct system of cost, time quality and materials. Proper project management policy we believe, is the only solution in making sure that building construction and developments do not fail, collapse, or are abandoned at alarming rate in Nigeria as such threatens the foundation of economic growth and slim down the chances of realising vision 20:2020project of the federal government.

13. Recommendations

Having seen the imperative for project management, we strongly recommend that it should be a national policy to be enshrined in the Constitution of the Federal Republic of Nigeria as we advocate for constitution amendment.

Every organization in all the major and minor sectors of the nation's economy is encouraged to establish the department of project management. A project manager should be appointed early enough in the project life cycle to handle the management from inception to completion.

Every building development must have a resident project manager and not one project manager handling the management of more than one project at a time for an organization, for this will create loopholes in realizing the development goal. There is strong need to use the modern

project planning and control techniques in achieving the required quality and material targets of a development aim and objective.

For public building development projects, government should set up a Project Management Office (PMO) under the office of the President/Vice President or Governor/Deputy Governor to provide substantive professional project management support for national and state project planning, execution, monitoring/control and close out. Many countries Nigeria intends to compete with on the journey to 2020 may use project management as a tactical tool to execute projects and avoid wastages. Therefore in Nigeria, there should be in place a workable, committed and sustainable approach that is all-inclusive in institutionalizing project management as a strategic requirement for nation building and achievement of the 20:2020 vision.

If proper project management is institutionalized, it would bring about authenticity of data or information, timely release of funds, effective management of project risks and realization of project benefits in both public and private sector of the economy.

We recommend as critical the need for the intervention of academic researchers and major stakeholders from building construction industry for a scientific study on other factors constraining project management success in public and private sectors of the building development industry.

We also recommend that a comparative study be undertaken to determine the level of building development project management performance between foreign and indigenous development firms. To this end, we are very optimistic that an empirical study in these areas may provide a level ground for all the stakeholders, clients, designers, contractors, users, financiers and sponsors to rub minds on how to drastically reduce if not eliminating these disastrous elements as constraining factors to building development project management success in Nigeria. This may be the only sure way to realize the proposed project of vision 20:2020 having seen the economic importance of project management and building development success in Nigeria.

Finally, Professor Nwachukwu, a production engineer from University of Benin, once said in a private chart that Estate Management discipline is closer to Project Management than any other discipline. To this end therefore we suggest that Project Management profession should be institutionalized as an integral option, branch and part of Estate management profession especially in postgraduate studies. As other professionals encroach in Estate Management functions like agency and management of building infrastructure, we can launch out to project management practices which have virgin opportunities like Events Planning, Events Management and Events Control etc.

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Can Physics Quantum Skills play rule in the Organizations Sphere?

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Abstract

Implementing new strategies are necessary to be competitive in the area of crises today. Multidisciplinary thinking for a manager is a competitive advantage for the organization. This paper aims to review the Quantum strategies for the organization.

Key Words: Quantum Skills, Management, Quantum physics

1. Introduction

Primary uncertainty can never be reduced, but organizations can adapt to it (Williamson 1985).

Trying to connect basic science to the human science is a good approach that some scientists and scholars have started to do this linkage. Quantum physics is a branch of physics that deals with very small elements and objects. The name is derived from "quanta," a Latin term meaning specific amount. Energy comes in very small discrete packets. For example, light comes in photons, which are essentially small packets of energy that come in specific amounts and have no mass. Quantum physics is comprised of advanced topics like wave-particle duality (Patrick, 2010). This paper discusses the quantum and Quantum skills in the organization.

2. The quantum skills of Physics

At about the same time that Taylor and Fayol were developing management theories congruent with the Newtonian worldview, Einstein was conducting experiments that eventually turned this worldview upside down. Einstein discovered that in the realms of the very small (subatomic) and the very large (cosmic), Newton's laws are null and void. By the 1920s, this discovery launched a new branch of physics called quantum mechanics. The word quantum literally means "a quantity of something"; mechanics refers to "the study of motion". Quantum mechanics is, therefore, the study of subatomic particles in motion (Shelton, 1999, pp. 1-2). According to quantum theory, the universe is basically a set of signals or a field of information. It is much more like a great thought than the great machine metaphor of the Newtonian paradigm (Shelton & Darling, 2003, pp.358-359; Noruzi & Hernandez, 2010).

3. Do quantum skills necessary for coaches?

Coaches as well as the employees and CEOs should prepare themselves with quantum skills as well.

4. These include how modern science explains:

- How clients can create their reality through visualization and why it works
- The interconnectedness of all things and why it is essential for leaders to understand this.
- Emotional intelligence and the purpose of human emotions

- Why personal choice and intent are so powerful
- Why it is so vital to be in the present moment
- How clients can step almost instantly into their full personal power (quantum skills for coaches, 2010)

5. Coaches will explore in depth and learn how to work with concepts such as:

- The energetic nature of all things and the ‘quantum soup’
- How we physically become the thoughts we think and the words we use
- How to use metaphorical journeying in exploring the client’s issues
- Understanding how to communicate with the body/mind to reveal the source of the blocks and problems and to resolve them
- Literally dissolving troublesome emotions(quantum skills for coaches, 2010)

6. The quantum- Physics organizations and Quantum Skills for Learning Organizations

As leaders use these quantum skills, they create what Kilmann (2001) and Shelton (1999) refer to as quantum organizations – organizations where all stakeholders know how to access the infinite potential of the quantum field. Quantum organizations are, therefore, learning organizations – places where continuous improvement and constant learning are cultural norms. Table I shows the relationship of each quantum skill to seven contemporary workplace challenges: quality, innovation, motivation, empowerment, social responsibility, change, and diversity. As leaders adapt new mental models that are congruent with the quantum worldview, they will discover highly innovative ways of dealing with these organizational challenges (Shelton & Darling, 2003, pp.358-359).

According to quantum theory of Physics, the universe is basically a set of signals or a field of information. It is much more like a great thought than the great machine metaphor of the Newtonian paradigm. The quantum worldview, which characterizes the universe as a dynamic, unpredictable, subjective, self-organizing system, provides the conceptual foundation for seven quantum skills – skills that enable leaders to surface and test their mental models and thus improve their capacity to learn. The quantum skills are defined as follows:

- i. Quantum seeing: the ability to see intentionally.
- ii. Quantum thinking: the ability to think paradoxically.
- iii. Quantum feeling: the ability to feel vitally alive.
- iv. Quantum knowing: the ability to know intuitively.
- v. Quantum acting: the ability to act responsibly.
- vi. Quantum trusting: the ability to trust life’s process.
- vii. Quantum being: the ability to be in relationship (Shelton, 1999, p. 4; Shelton & Darling, 2003, pp.354-355; Noruzi & Hernandez, 2010).

The summary of quantum theory is summarized below in table II:

Table II: The relationship of the Physics quantum skills to key workplace challenges

Challenge	Quantum skill	Definition	Behavior
Quality	Quantum seeing	The ability to see intentionally	Focused
Innovation	Quantum thinking	The ability to think paradoxically	Creative
Motivation	Quantum feeling	The ability to feel vitally alive	Energetic
Empowerment	Quantum knowing	The ability to know intuitively	Confident
Social responsibility	Quantum acting	The ability to act responsibly	Ethical
Change/chaos	Quantum trusting	The ability to trust life	Flexible
Teamwork/diversity	Quantum being	The ability to be in relationship	Compassionate

Source: Shelton & Darling, 2003, p.359

7. The Most Important Factors in Physics Quantum Strategy in Intellectual Capital Management Practical Strategies to Creating Intellectual capital learning system

- i. Individual learning is an emergent process that seems to arise through interaction and seems to depend on a number of factors, of which the most important are:
 - Who an agent met
 - How often an agent met a certain other agent
 - Which characteristics the agents respectively had
 - The characteristics of the agents, i.e. how much does an agent trust other agents, how motivated is an agent, how orderly, etc.
- ii. Whether collective learning takes place depends on the composition of the team and their characteristics. That will eventually determine whether a group of agents will reach their group threshold.
- iii. How quick an agent learns, depends on his characteristics and the characteristics of the agent he meets.
- iv. An agent can learn, but he can also “unlearn” if his motivation and trust drop.
- v. Agents that represent R&D people and marketing managers seem to learn faster.
- vi. The extent to which a senior manager slackens his control is determined by the degree of trust he has in the project manager, which in turn depends on the degree of trust a project manager has in other agents.
- vii. A run of the model wherein senior managers were left out of the hierarchy showed that learning took place faster than in prior cases which hinted at the existence of self-organization (Harkema, 2003, pp.344-345; Noruzi & Hernandez, 2010).

8. Conclusions

Successful managers and businesses have been managing intellectual capital one way or another all along, whether consciously or intuitively. This however, does not mean that they have an ICM program or strategy. Managing IC as a matter of common business sense is not sufficient for the development of ICM as an organizational competency. It is only when a management style moves from being intuitively applied to a planned and systemized process that it can be perfected. Only then can it be substantially transformed from being an art to becoming a science. Once it transitions into a science, it becomes testable, measurable, more predictable, and, most importantly, repeatable. Though organizations that apply ICM advance this goal, there is still a long road of experimentation and applied research ahead for the emerging field of ICM to become more of a "science." (ICM, 2009; Noruzi & Hernandez, 2010).

It has long been recognized that 'economic prosperity rests upon knowledge and its useful application' (Teece 1981). Indeed, 'the increase in the stock of useful knowledge and the extension of its application are the essence of modern economic growth' (Kuznets 1966). Enlightened economic historians have long emphasized the role of technology and organization in economic development.

Formalization, the sharing of personal knowledge, and the development of structural approaches as a mechanism to transfer learning throughout the firm may on the other hand sap creativity and impede learning. Ideally, one would like to develop approaches or models which have a common essential logic, but which enable customization of particular features. This is but one of the many challenges to service firms in the new economy where knowledge sharing itself can often be the basis of competitive advantage (Teece, 2002; sariolghalam et al, 2010; Noruzi & Hernandez, 2010).

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Influence of Emotionally Charged Advertisements on Consumers' Attitudes towards Advertisements, Brands & their Purchase Intentions

Listed in ULRICH'S



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Abstract

It is a common belief that emotional content in advertising can persuade brand favorability even when rational content has no effect. Emotion is a main factor that holds an important position in advertising. This study investigates the role of emotional elements in advertisement influencing consumer attitude towards the advertisement, brand and how these in turn affect the purchase intention. Three aspects of emotions, including love, fear and information in advertisements have been considered. The data was analyzed through several statistical tools including one sample Kolmogrove Smirnov test and Regression analysis. Results of the study show positive significant relationship between not only emotional advertisements but also with other factors such as interesting and informative advertisements. There is also a positive significant relationship between attitude toward advertisement and attitude toward brand and that a positive attitude towards a brand leads to purchase intention.

Keywords: Influence, Emotionally Charged Advertisements, Consumers Attitudes, Advertisements, Brands , Purchase Intentions

1. Introduction

Emotions have a significant position throughout the span of our lives for the reason that they enhance almost all of our challenging moments with either a lovely or horrible features (Cacioppo, 2001). Emotions are best treated as a comprehensive phenomenon which consists of the subsequent mechanism: behavioral reactions, expressive reactions, physiological reactions, and subjective feelings (Desmet , 2002).

Emotion is a key element that holds a strange position in advertising. Holbrook and Hirschman (1982) highlighted emotion as to have a more self-determining role in advertising. Shimp (1981) believe that attitude towards an advertisement can be 'transferred' to and persuade attitude towards a brand when category association is low.

The density of emotions and the complexity come across in examining and computing them is a common idea in literature, but emotional contents provides only a supporting role in information processing. Research, on the other hand, suggests that emotion may be a great deal having more influence on the brand decision-making than has formerly been supposed (Heath, 2007).

Advertising should develop some emotions in order to be valuable and eye-catching. Advertising can be a constructive basis for enhancement of these emotional responses. Emotional substance in advertising is exposed as being not just a support to increase consideration and sustain message communication, but an influential communication method in its own right. Furthermore, emotional substance is substantially inconsistent and is thus more

simply made distinctive to the brand. Brand can have emotional contents in a way that is generally no longer promising with an accurate message (Heath, 2007).

A strong decision-making significance to advertisement together with the clear hypothetical background of different attitude models has made significant research into attitude toward the advertisement (Fishbein & Ajzen, 1975). According to different research studies, advertisement is affected by brand or non brand processing sets (Hastak & Olson 1989; Madden, Allen & Twible 1988; Gardner 1985; Homer 1990), advertisement disclosure level (Burke & Edell 1986; Cox & Cox 1988), message connection (Park & Young 1986; Muehling & Laczniak 1988), emotional responses created during advertisement experience (Burke & Edell 1989; Batra & Ray 1986; Machleit & Wilson 1988), and advertisement message value and substance (Hastak & Oslo, 1989; Burton & Lichtenstein, 1988). Prior research studies suggest that emotional element in advertising can persuade brand favorability even when rational element in advertisement has no outcome (Heath, 2007).

Different researchers have explored the emotional feedbacks to advertisement by concentrating on the higher order scope of emotional gap (Diener & Larsen, 1993; Pieters & Warmerdam, 1996), accomplished multivariate analysis of emotion speech responses to advertisement and found that unlikable approach and low-intensity pleasing approach affected manner towards the advertisement, whereas high concentration pleasing feelings affected advertisement recall.

The most significant apprehension that advertiser states about TV advertisements are the probable turn down of TV advertisements' influence because of media mess (Moore & Harris, 1996). At the moment to split the clutter and create a commercial more unique and credible, advertiser commonly goes for the emotional demand in the advertisement and communication planned to astonish the emotions and put together the mind itchiness (Moore, 1989).

Biehal, Stephens and Curlo (1992) examine how attitude toward the advertisement, influences brand choice & when Advertisement is created for the duration of the choice procedure. They conducted the laboratory experiment in the Product categories like facial tissues, scouring advertisement, spray disinfectants and an ordinary household cleaning item. Their conclusions support the hypothesis that attitude change resulting from disclosure are a role of the individual's attitude earlier to experience, the number of prior experiences, and brand awareness. Attitude toward the advertisement is the tendency to react in a positive or critical way to a specific advertising incentive throughout a particular exposure situation (MacKenzie, Lutz & Belch, 1986). Winter (1973) explores the influence of advertising experience on a person's brand attitude change.

Holbrook and Batra (1987) made use of the hierarchal model for testing the advertising effects on viewing time. They acknowledged the motivated behavioral measures of interest to television advertising that of zipping & zapping. Their study also demonstrates the effects of contents of TV advertisement, through emotional reactions and attitudes. The key variables in their study were viewing time, attitude towards advertisement, emotional dimensions and advertisement. Their result indicates significant intercorrelation in viewing time, advertising contents, and attitude towards advertisement.

Larsen and Diener (1987) have described a direct correlation between force and emotional reaction. In addition, attitude pattern has been exposed to be effected directly by the emotions extract by the message receiver (Bagozzi & Moore 1994; Edell & Burke 1987; Holbrook & Batra 1987; Moore & Hoening 1989). Emotions such as anger, panic and empathy had an

encouraging effect on attitude creation. It can be consistent, hence, that considerable changes in thoughts should take place as a function of the power of the emotion practiced by the message receiver, thus follow-on in an interface between affect power and thoughts creation (Larsen & Diener 1987).

It is still not obvious from earlier marketing research that wherever the assumed personality differences in exciting reaction can persuade the manner consumers react to high force emotional temptation, specifically the consumer's thoughts to the advertisement. Individuals may hold opposing views broadly in the concentration of their emotional reply to influence loaded stimuli (Larsen 1984; Larsen & Diener, 1987). There has been amazingly little research that directly examines the advertisement- brand choice association (Shimp, 1981).

In the country like Pakistan, there is a scarcity in research work in this area. This study, hence aims to explore the impacts of emotionally charge advertisements on consumer attitude towards advertisement, attitude towards brands and their purchase intention.

2. Theoretical Framework of the Study & Hypotheses

Prior literature review indicates that emotional advertisements emerge as a significant factor leading to positive attitude of consumers towards advertisement & brand. Advertisement has been set up to be associated to attitude toward the advertisement (Mitchell 1986; Gardner 1985; Homer 1990; Muehling & Laczniak 1988; Stayman & Aaker 1988), purchase intention (Mitchell & Olson 1981) and attitude towards the brand (Mitchell 1986). Based on this linkage between the emotional advertisement & consumers' attitude, the proposed framework emphasizes the influence of emotional advertisements on consumers' attitude towards the advertisement, attitude towards the brand and its impacts on their purchase intention.

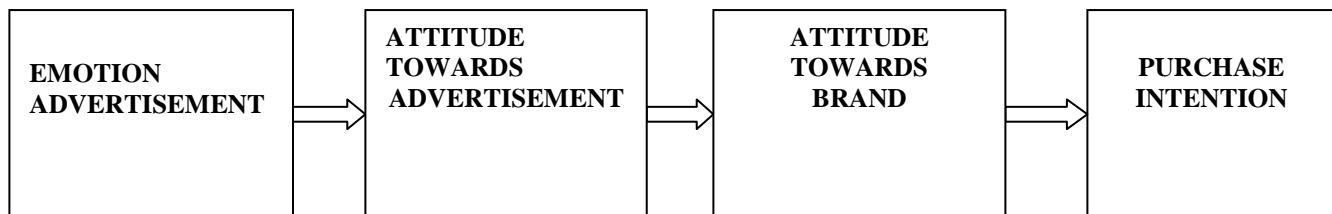


Figure 1: Relationship of Emotional Advertisement and Purchase Intention

Figure 1 indicates the main mechanism of the framework. As can be seen, the framework shows the emotions' impacts on consumers' attitude towards advertisement, the influence of attitude towards advertisement on consumers' attitude towards brand, which in turns directly affects their purchase intention.

Thus, in this study we hypothesize a positive relationship between the emotional advertisement and consumers' attitude towards advertisement, attitude towards the brand and their purchase intention. These hypotheses are:

H1: Emotional advertisement creates more positive attitude toward the advertisement than interesting and informative advertisements.

H2: Positive attitude towards the advertisement create positive attitude towards brand.

H3: Positive attitude towards the brand leads to purchase intention

3. Methodology

The target population for this research study included the graduate level students of different universities of the Peshawar region.

Six advertisements were chosen to provide support to the experiment and offer a significantly comprehensive variety of emotions including love, fear & information, likely to emerge in television advertising. In the experiment, all brand names in the advertisements were changed to make brand names unfamiliar to the respondents and avoid biasness. The experiment included the advertisements of soap with the six different brands (Gardner, 1985).

Data was collected through convenience sampling procedure. Self-administered structured questionnaire was used for data collection from the respondents. Questionnaires were distributed among 100 students in four different universities of Peshawar but only 70 questionnaires were returned.

The questionnaire was divided into three categories. The first category included the questions that aimed to identify the nature of emotions used in the advertisements and the type of advertisements. The second category investigated the respondents' attitude towards the advertisement and then towards the brand. Whereas the questions in the third category sought information regarding the respondents purchase intention immediately after seeing the different advertisements. The respondents' responses were recorded through a Five Points Likert scale (Strongly Disagree to Strongly Agree).

For measuring attitude towards the advertisements, seven items (attractive, good, appealing, pleasant, dull, refreshing, enjoyable) & for attitude towards brand three items (good, favourable, positive) were adopted from the previous studies (Muehling & Laczniak, 1988). To measure purchase intentions, the scale "all things considered, if you were to purchase soap on one of your next trips to store, what are the chances that you would purchase the desired soap if it were available was used (Grossman & Till, 1998). The responses were collected on Five points scale (1= Definitely Will not Buy to 5= Definitely Will Buy). The reliability of the scale used in the study was measured through the Cronbach alpha, which was greater than the level recommended by Nunally and Bernstein (1994).

4. Results

Statistical analysis was also carried out in steps. Different statistical tools were applied to the data.

[Insert Table 1 Here]

The results of the test for the advertisements of all the six brands provide basis for their categorization. The overall results in the above Table indicate that the respondents considered the advertisements of Opera and Sparsh soaps as having the emotion of love. Whereas the mean value of the Fight Club soap for fear was 3.87, which shows that the advertisement is based on the emotion of fear. According to the respondents, the advertisement of Velderma, Star and Loccitane soap were in the informative category because these advertisements gave them information regarding the brand only.

[Insert Table 2 Here]

The results of Table 2 show the relationship between the different advertisements & consumers attitude towards these advertisements. As the results of fear emotional advertisement is insignificant therefore first hypothesis that the emotional advertisement creates more positive attitude towards the advertisement than interesting & informative advertisements, is rejected. So the result shows that the only emotional advertisement does not influence the consumers' attitude towards the advertisement but informative and interesting advertisements are also important. The model fit is significant with the F statistics at the significance level of 0.00. The R^2 value is 0.524, which means that 52% of the total variations in the attitude towards ad is explained together by the independent variables.

[Insert Table 3 Here]

In the second step, regression analysis was used to find the relationship between the attitude towards the advertisement & attitude towards the brands. From the regression analysis it is clear that brand attitude has a positive relationship with consumers' attitude towards advertisement ($\beta=0.777$, $p=0.00$). Thus we accept our hypothesis that attitude towards advertisement creates positive attitude towards brand. The F value is significant at the significance level of 0.00 and the R^2 shows that the 60% of variations in brand attitude is explained by the consumers' attitudes towards advertisements.

[Insert Table 4 Here]

In the last step of regression analysis, the results in above Table 4 demonstrate the positive relationship between the attitude toward the brand and purchase intention ($\beta=0.638$, $p=0.00$). On the basis of positive significant relationship between the variables the third hypothesis that is Positive attitude towards brand advertisement to purchase intention, is accepted. The R^2 indicate that 40% of the variations in purchase intention is explained by the attitude towards brand & the F value is significant at 0.00 level of significance.

5. Discussion

The overall statistical results demonstrate positive relationship between advertisement, attitude toward the advertisement and brand, which leads to favorable purchase intention. This indicates that emotion is not a necessary factor in advertisements for creating positive attitude toward them. Customers may also get influenced by interesting and informative advertisements. Secondly, the results of the study demonstrate that there is a positive relationship between attitude toward advertisement and brand attitude. If a person has positive attitude toward advertisement it creates positive feeling for brand as well and finally if a person has positive feeling toward brand it might lead to purchase intention. The findings that a positive relationship exists between attitude towards the advertisement and attitude towards the brand and its subsequent positive relationship with purchase intentions support the previous findings (Biehal, Stephens & Curlo, 1992; MacKenzie, Lutz & Belch, 1986).

6. Limitations & Suggestions

This study was carried out for the investigation of the relationship between the emotional advertisements, attitude towards advertisements, and attitude towards brands & consumers purchase intention. Exposure to the advertisement occurred in artificial scenario in which respondents were asked to respond against advertisements which may have led to considerably

diverse responses from those which may have resulted if the advertisements were viewed in a natural setting. Findings of this study suggest some areas for future research. As convenience sampling was used for the data collection & furthermore target population included only graduate level university students in Peshawar, therefore we cannot generalize the findings to the rest of the population. Future studies are suggested to increase sample size. Additional research is suggested to gain deeper insight into the emotional and non emotional advertisements and its impact on attitude toward advertisements by using larger sample size.

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Annexure

Table 1: Results of One Sample Kolmogorove-Simirnov Test

Brands	Non Parameters MEAN				
	Information	Warm	Interesting	Fear	Sig
Opera	3.04	4.16	3.74	2.24	0.00
Sparsh	3.56	4.00	3.90	2.16	0.00
Velderma	4.64	4.03	4.04	3.29	0.00
Fight club	3.16	2.83	3.51	3.87	0.00
Star	4.04	3.21	3.73	2.20	0.00
Loccitane	3.09	2.61	2.80	2.17	0.001

Table 2: Relationship between Emotional advertisements & Attitude towards advertisements

Independent Variable	Dependent Variable	Standardized Coeff. Beta	T Value	Sig
Emotional Advertisement	Attitude Towards advertisements			
warm		0.263	7.112	0.00
fear		0.007	0.210	0.834
Informative		0.137	3.726	0.00
Interesting		0.513	13.095	0.00
R ²	0.524			
F	114.149			

Table 3: Relationship between Attitude towards advertisements & Attitude towards Brand

Independent Variable	Dependent Variable	Standardized Coeff. Beta	T Value	Sig
Attitude Towards Advertisement	Attitude Towards Brand	0.777	25.233	0.00
R ²	0.604			
F	636.682			0.00

Table 4: Relationship between Attitudes towards Brand & Purchase Intention

Independent Variable	Dependent Variable	Standardized Coeff.Beta	T Value	Sig
Attitude Towards Brand	Purchase Intention	0.638	16.955	0.00
R ²	0.407			
F	287.479			0.00

QUESTIONNAIRE

Gender: - _____ Age: - _____ Occupation: - _____

After watching the advertisement of the following brands, please indicate that how you feel towards each of these brands separately on five points scale.

1=Strongly Disagree 2=Disagree 3=Undecided /Neutral 4=Agree 5=Strongly Agree

	Soap Opera	Soap Sparsh	Soap Val derma	Soap Fight Club	Soap Loccitane	Soap Star
The ad provided sufficient information about the benefits of the brand.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad focused on targeting warm feelings.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad was interesting.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad focused on targeting fear factor.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad is attractive.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad of the brand is appealing.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad of the brand is good.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad is pleasant.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad is dull.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad is refreshing	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The ad is enjoyable.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
My attitude toward the brand is favorable.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
My attitude towards brand is positive.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The Brand is a good brand.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

1= Definitely will not buy 2= Probably will not buy 3=Not sure 4= Probably will buy
 5= Definitely will buy

All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase OPERA AP if it were available	1	2	3	4	5
All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase SPARSH SOAP if it were available	1	2	3	4	5
All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase VAL RMA SOAP if it were available.	1	2	3	4	5
All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase FIGHT UB SOAP if it were available.	1	2	3	4	5
All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase STAR AP if it were available.	1	2	3	4	5
All things considered, if you were to purchase SOAP on one of your next trips to a store, what are the Chances that you would purchase LOCCITAME AP if it were available.	1	2	3	4	5

The Educational Factor and its Role in The Process of Democratic Transition Case Study: Jordan

Listed in ULRICH'S



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Abstract

This article aims to shed the light on the role of the educational factor in the process of democratic transition in Jordan launched in 1989. Particularly, the article seeks to identify the nature of the inter-relationship between education and political development. For this rationale, the article will scrutinize four major topics: the development of the educational system in Jordan whether during the basic stages or the higher education, the theoretical relationship between education and democracy, the development of the relationship between education and democracy in Jordan, and finally the role of political influences in education. The researcher will follow the historical approach to outline the development of the educational process and the descriptive approach in devising the educational and political relationships in addition to their impact on the Jordanian society, principally in the stages of democratic transition.

Key Words: Democracy, Education, Factor, Transition, Jordan.

1. Introduction

Education is considered a fundamental right guaranteed by all religions, charters and international as well as regional treaties. The Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights, in addition to other sources of international law guarantee the human right to receive education for the role of education to empower and strengthen the other rights. Indeed, without a adequate and appropriate education human beings cannot acquire their other rights, cannot distinguish cases of human rights violations, and cannot defend those rights. In addition to these, there is an important feature of the right to receive education which is to let a person be free in deciding the type of education suitable for him/her, and allow individuals and groups to establish special educational institutions conform with their religious and intellectual attitudes, provided that they are subject to the minimum standards of control and follow up by the state. These issues have made the right to education a public and private issue simultaneously and have made the issue of monitoring indicators of the right to education a sensitive and very important issue since it is looked at private and public levels and monitor the official commitments in the presence of personal choices.

The importance of education is no longer controversial, as the contemporary international experiences proved that the beginning of the genuine development merely lies in education and that education has been the gateway for countries that have realized such a development. Indeed, the developed countries place education as a priority in their programs and policies for the substantial roles that education has in developmental, political, economic, social processes, its authentic contributions in maintaining the safety and stability of nations as well as their well-being and development. Based on the foregoing, education has become a necessity of life, the source of the social welfare, and an important basis of the cultural and civilization foundations in

the modern societies. Additionally, the era in which we live being characterized by the changes, events and continuing cultural revolutions has created a situation where we cannot survive in except those who are able to adapt and cope up with its variables and requirements.

Although the democratic transition in Jordan has been the result of the political sovereign decisions taken and implemented in Jordan, yet there are ranges of factors that have led to this transfer. These include the local factors such as: the geographical, demographic, economical, security, leadership, and educational factors in addition to the regional factors, international factors, or all of these factors together, or as a result of the interaction among these factors. Although these factors are interrelated and interacting with each other, they cannot be separated. In fact, in this article we will discuss one of the internal factors represented in the educational aspect due to its importance in terms of the depth of its educational impact in the sustainability of democratic life and its stability on the one hand and the effect of democratic transition in the promotion of democracy education on the other hand.

The significance of the relationship between the educational dimension and the democratic transition that Jordan witnessed in 1989 stems from the fundamental interactive nature of the relationship between the educational system and political system. Perhaps the developments that the educational sector witnessed since the establishment of Jordan would not doom to succeed without the political decision which increasingly expanded the educational sphere to keep abreast of developments and modernizations taking place in the contemporary world. Also, the political decision-maker in Jordan recognized that the role of education is of a paramount importance in assisting to achieve the political, social and economical development.

In order to understand the relationship between education and democracy in Jordan, we should examine the extent of the impact of the education reality in the decisions, general political trends, the decision to proceed towards democracy, development and stability on the one hand, and the impact of democratic transition on the educational aspect and the consolidation of democratic concepts. In view of that, we shall discuss the development of education in Jordan under the umbrella of the political trends, the mutual influence between the educational reality and the political system; also we will tackle the democratic life and its relationship with the educational reality in Jordan.

2. Education in Jordan

The population of Jordan was estimated to be nearly (5.3) million in 2009 and that the rate of the population growth is approximately (2.5%) in 2004 despite the fact that the approved rates to estimate population in 2003 was approximately (3.8%). This rate is considered to be one of the relatively high rates worldwide whereas it is relatively the average rate on the level of the Arab States and the developing countries. Meanwhile, the Jordanian society is characterized by being a young society as (37.2%) of the population is under the age of fifteen, (56.5%) lies within the age category of (15-59 years) and that the rest (6.3%) are more than 60 years. The rate of those who are enrolled in various stages of education is (30.9%) of total population.

Furthermore, the Jordanian society is characterized by the high rate of the population enrolled in education where the total number of people enrolled in various stages of education as of 2009 about (1.8) million students (males and females). This figure represents (30.9%) of the total population. Whereas the illiteracy rate among the Jordanians those who are (15) years or more is amounted to nearly (10.3%), males about (5.6%) compared to (15.1%) for females. The high illiteracy rate among females can be attributed to certain cultural, social and economic factors. (Department of Statistics, 2009)

In 2009, the expenditure on the public education in Jordan constituted 0.5% of the gross domestic product (GDP) and 1.1% for the higher education and universities. Essentially, these rates are relatively modest compared to other countries. To cover such expenditures, the university fees contributed by 54.6% of such a cost, while the government support contributed by (31%) and the rest from other sources.

According to the Jordanian Constitution of 1952, the primary education is compulsory and free of charge. The statistics of the Ministry of Education in 1990 reported that 93% of the students enrolled in primary schools and 72% in secondary schools. Such rates are close to the case of the industrial democratic states (Rashdan, 2003: 85-95).

The philosophy of education in the Kingdom of Jordan stems from the Jordanian Constitution, the Arab Islamic civilization, the principles of the Great Arab Revolt, and Jordan national experience. This philosophy is represented in a range of the bases of intellectual, national, nationalism, humanitarian, social, and the political and social participation within the democratic system as an individual's right and duty towards his/her society. One of the main principles of the educational policy in Jordan is to insist on the importance of political education in the educational system in addition to the consolidation of the principles of participation, justice, and democracy along with practicing it.

Education in Jordan has witnessed an expansion that includes all its various stages, whether in the public or the private sectors. This expansion has come been to meet the growing demand for education, especially the higher education. Such an expansion in level of school education might be justified as a result of the compulsory education, while the expansion in higher education (universities and community colleges) came to meet the growing demand for it locally (Bani Issa, 1995: 26). In this context, school is considered the natural incubator of the educational system, where individuals receive the major volume of knowledge and the educational experiences, besides getting the education that constitute their attitudes and preferences including their intellectual future and contributions to the political life. Higher education is the natural incubator to incite the political thought of the different categories of the society and the thoughtful expression of their will. The following is a quick review of the educational system development in Jordan:

2.1 The Development of the Role of School in the Jordanian Educational System

When examining the development of schools number in the Kingdom, it indicates that there had been very little public and missionary schools in Jordan under the Ottoman rule. The number of schools under the British Mandate since 1921 until 1946 remained the same and without any significant change when compared with the foregoing era, particularly in remote rural areas (Wahlin, 1987: 15-157). The reasons that contributed to the limited number of schools during that period is the policy adopted by the British Mandate to limit the education in the mosque of the village, and to avoid the establishment of a strong national educational system. However, that limited number began to grow slowly until 1946 when there were 73 schools after it was suspended to be 44 schools during the British Mandate (Wahlin, 1987: 15-157).

However, 1950s witnessed a remarkable development in this direction where the distribution of schools by region became more unbiased. This resulted in the spread of schools in rural and remote areas, and thus the number of schools increased by nearly two folds in that decade to reach 159 schools in 1955 (Wahlin, 1987: 15-157). This constant increase in the number schools had been accompanied by an increase in the representation of students from rural areas. As those

students represented only 32% of the total registered students in schools in 1945, the ratio grew up to 45% in 1979/1980 (Wahlin, 1987: 15-157), despite the constant decline in the number of the residents of rural areas in the same period .

During the period started from the early 1950s until the process of democratic transition in Jordan in 1989, the Ministry of Education, the private sector, and the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) officially managed schools. The total rate of schools whose management was directly supervised by the Ministry of Education was 76% of the total schools in the kingdom by 1989(The United Nations Educational, Scientific, and Cultural Organization, 1989: 3-94).

Statistics of the Ministry of Education as of 2009 indicate that there was (1.6) million students (males and females) in the primary and secondary stages in the latter various branches. Of those students, there are (1.1) million students in schools of the Ministry of Education, and (0.33) million students who were studying in private schools that are owned by the private sector. The rest were distributed between UNRWA and other government authorities.

Those students enrolled six thousand schools that belong to the Ministry of Education (56.9%), (38.9%) owned by the private sector, and the rest belong to UNRWA and other government authorities. It is worth mentioning that the value of the public expenditure on education is very high as the budget of the Ministry of Education is approximately amounted to (11%) of the general budget of the Kingdom. (The Ministry of Education, 2009)

Indeed, the educational gap between rural and city areas became narrower to a great extent since 1979, especially with the government's efforts to provide education for all, including the efforts paid to eliminate literacy where the aged are taught the skills writing and reading in classes designated for this purpose. Researchers noted that the enduring successes in the field of education have greatly helped to achieve similar successes in the field of modernization and political development. All of these successes are attributed to the political efforts that applied the expansion strategy in the opening of schools and encourage the private sector to contribute to the educational efforts in the Kingdom (Gubser, 1990: 15-16).

2.2 The Development of the Role of Higher Education

University has multiple functions including education, research, and community service and these functions have been developed and expanded in the modern era. Such functions are no longer limited only in graduating a group of engineers or physicians; it has exceeded that to become the leader of the pace of development via revealing the newly discovered facts and providing solutions to the current and future problems. The higher education is considered the important and significant stage and it seeks to achieve the following objectives:

- i. Preparing leaders in the various social, political and intellectual fields with the aim not only to preserve the cultural and the prevailing social pattern, but also to lead the change in the best society.
- ii. Contributing, along with other social institutions, in the social, economic and cultural creation process effectively. Such a process is crucial for the accurate sound interactions in the community that will ultimately lead to the individual's adaptation with himself and the community where he/she lives.
- iii. Providing students with the essential education and training that qualify them to engage in areas of productive work efficiently and competently.

- iv. Contributing effectively to the development of mental abilities of students through education and scientific research.

Generally, the university education has three main functions in the modern society, namely: education, the scientific research and public service (Omari, 1997) (Al Rasheed, 1996). The post-secondary education till 1951 had not been available in Jordan, as the students of secondary school graduates were obliged to go abroad to follow their higher education. The total number of Jordanian students who were studying at the Arab universities in 1948 was (223) students. However, the three decades that preceded the democratic transition process in Jordan witnessed Jordan's supremacy in higher education at the level of the Arab world, especially in the establishment of scientific institutions as well as the universities and colleges according to advanced scientific standards despite the scarcity of national resources. The educational planners have succeeded in the development of major foundations of the higher education through the report of the Committee of Education Policy in Jordan issued in 1986, which recommended that the educational policy in the Kingdom shall be based on a number of foundations and principles derived from the Islamic and national heritage, the country's constitution and the political, economic and social dimensions of the national experience .

The first step has begun via the establishment of the higher education institutions in Jordan in the wake of the unity between the two banks in 1951 and this was through the inauguration of a class for the rehabilitation of teachers in Al Hussein College in Amman, and the female teachers college in the city of Ramallah in the West Bank in the same year. The total number of teachers institutes that had been set up in 1962 when the first university was established in Jordan (Jordan University) had been (11) institutes. In 1980, the male and female teachers institutes were converted into community colleges which rapidly developed in terms of its number to be (52) colleges in 1985 distributed throughout the Kingdom.

Prior launching the democratic transition, Jordan had witnessed an expansion of university education including the establishment of Yarmouk University in 1976 and followed by the establishment of Mu'tah University in 1981, then the University of Applied Sciences & Technology in 1986. Meanwhile, the number of community colleges decreased subsequent to the democratic transition and that the Ministry of Higher Education granted the first license to establish a national private university (Al Ahliyya Amman University) in the academic year 90/91, to be followed by the establishment of private universities which reached the total of (12) University where (31000) students joined them during 96/97. Also, another seven private universities were granted establishment licenses by the new millennium. There are (20) public and private universities in the Hashemite Kingdom of Jordan of which (8) public universities each has its own features in terms of location, programs, students, and capacities especially the financial capacities. The number of students enrolled in the Jordanian universities reached about (219.2) thousand students where (192) thousand students in the undergraduate level and this represented (93.3%) of the total students, (70%) in the regular program and the rest in various special programs. Students graduate programs constituted (8%) of the total number of 2009.

Pertaining to the curricula of the various levels of education programs, they have played a critical role in increasing political awareness, encouraged political participation, and the adoption of democratic practice. This attitude has been supported by all means of media: printed, video and audio as well as the support of the United Nations Development Programme to establish a national center and an independent consultancy council for human rights. Both are tasked to organize training courses for journalists, judges, lawyers, educational inspectors and workers in the non-governmental organizations to care for issues of democracy, the right of access to

information and women's rights. Therefore, the school curricula have been modified to include all the natural democratic rights contained in the Declaration of Human Rights and the Jordanian Constitution of 1952. In this context, it is noted that the system of the western world, particularly the U.S. administration, has pushed the Arab countries, including Jordan, to change their educational curricula being accused of spreading a culture of violence and hatred to be more open to other cultures (Hourani, 2005: 170).

In brief, one can stipulate that the development of the educational process has been tied with the establishment of the Jordanian State since the establishment of the Emirate in 1921. Meanwhile, such a development had been slow in the early era of the State because of the prevailing political and economic conditions at that time. Indeed, during the reign of the late King Hussein (1952-1999), education had noticeably been developed where Jordan has become superior to the neighboring Arab countries in this field. The comprehensive plan of educational development, started at the beginning of 1990 and being consistent with the democratic transition in Jordan, is considered one of the most prominent educational achievements that translated the political leadership interest- in this aspect - in addition to the Education Act No. (3) Of 1994, that is continuously improved towards greater openness to the educational theories of the western democracy (Rashdan, 2003: 85-95)

The most important variables that affect the higher education in Jordan is the increasing demand for education at a time when the existing institutions are unable to satisfy such a demand, the imbalance of geographical distribution for the educational purposes, and the continuing rise in the cost of education. All of these variables have constituted a burden on both the educational institutions and the students in addition to the apparent deficiency in realizing the principle of equal educational opportunities.

3. The Strategy of Higher Education in Jordan

The national strategy draft of the higher education comes in the context of a national initiative led by His Majesty King Abdullah II to achieve a comprehensive change in the higher education and scientific research, to encounter the challenges and difficulties facing the higher education in Jordan, and promoting the sector to ensure its development and its responsiveness to modern changes. This strategy aims to promote higher education to match the international levels and raise its competitive advantages in terms of performance, quality assurance, openness and integration with the global trends of higher education through the introduction and adoption, adaptation and resettlement of information technology to achieve the transition from the profit economy to the knowledge economy. The elements of the national strategy for higher education adopted the following topics:

- i. Admission Element. This factor aims to develop the admission policy and its standards to achieve justice, equal opportunities, competitiveness and responsiveness to the needs of national development, taking into consideration the capacity of the universities and the adoption of the General Secondary School Certificate average assigning it a certain rate as a standard of admission.
- ii. Educational Plans and Programs Element. This aims to develop and update the educational plans and programs, develop the university requirements, and prepare students to have self-motivations to respect the Constitution, the foundations of citizenship culture, in addition to the technological, language and computer skills.

- iii. Human Resources Development Element. This element aims to enhance the level of qualifications, competences and experiences of human resources working in higher education.
- iv. Scientific Research and Higher Education Studies Element. It aims at upgrading, supporting and upgrading the level of scientific research and postgraduate studies, and giving the private sector a greater role in this element.
- v. Development of University Management Element. It aims to develop the university management staff to ensure their ability to manage the change and raise the level of performance through the adoption of the principles of decentralization in management, execution, transparency, accountability, efficiency and competitiveness in the selection of university leadership.
- vi. University Financing Element. This element aims to diversify the financing sources of the higher education to ensure the provision of the its institutions with the essential funds to achieve excellence, quality assurance, and their independence in addition to support financially unable students.

4. Theoretical Relationship between Education and Democracy in Jordan

The role of education is not confined in the limits of motivating students and challenging their capabilities through providing them with the explanations, questions and exams. Indeed, this policy has become inadequate for the righteous education; the righteous education is when the teacher himself identifies the goals that he/she is directing his/her students to achieve them. Additionally, the teacher should be aware that there is no value in any learning process that does not contribute to the achievement of a desirable objective. The righteous education should be directed to let students acquire experiences that have an effective impact in achieving the educational goals of the grade they are enrolling (Khatib, 2003).

Based on this point, the educational institutions work hard to create compatibility and the learners' psychological, social, educational and vocational adjustment in order to reach their maximum goals of growth which includes preparations, capabilities, skills, tendencies, trends, feelings and personality features. Additionally, school bears the responsibility of changing the students' behavior, i.e., from negative, aggressive, subversive or criminal patterns into positive patterns characterized by obedience, discipline, commitment, and respect of law order, and rights of others. Hence, the school guidance is intended to assist the individual to adapt according to the conditions and circumstances of the society as well as the prevailing practices in order to enable the him/her to enjoy a stable life in his/her society according to the education and culture which the people of this community are accustomed to (Abdel Aziz et al., 2004).

As a result and based upon the international agreements, the Jordanian political system had served- over the past decades- to achieve the principle of equal opportunities in education by providing equal educational opportunities to all its citizens at all stages of education and diverse tracks as well as standardizing the educational levels. Also, the educational system in Jordan served to consolidate and develop its message being based on the human emancipation from the shackles of ignorance, illusion and superstition, and to be away from the illogical trends and fanatic ideas to focus on freedom but in compliance with the spirit of responsibility, discipline, respect of others ideas (Alfrejat, 2002: 20 - 119). By doing so, i.e. the political system, it has managed the educational process in a way that serves the trends of the political decision, especially with regard to the development of the largest sector of the society in the direction of dealing with the tools of the contemporary era and methods of thinking, and so ensuring the internal intellectual, political and societal stability.

On the other hand, the educational system and to a great extent affects the political decision. Due to the presence of a high proportion of the community at the school stage, this shall boost the social and political awareness, particularly with regard to the rights and duties mainly the other civil rights. This means that there is an interrelated and compatible relationship of interests between the educational and political systems. Such a relation has been realized by the political decision-maker as a necessity that benefits the public interest.

The subject of democratic transition has occupied an ever-increasing debate among the intellectuals of the contemporary democracy theory since 1989, called by some researchers "Year of Truth" named after the collapse of the Soviet Union and the emergence the transition wave from authoritarian regimes to democratic systems. Samuel Huntington called this era as the third wave of the democratic transition whose roots go back to the year 1974 (Cooke, 2000: 146.). We can say that there is a difference in determining the beginning of this wave and its end; however, Huntington pointed out that the first wave started in the early nineteenth century and included twenty countries. He continued to say that there was a counter wave in 1942 led to the reduction in the number of those states to be 12 democratic states. Then, the second wave began after the World War II and those countries increased to be more than thirty countries followed by the collapse of democracy in a number of them. Finally, the third wave started in Portugal in 1974 and spread to cover more than 60% of the total countries of the world (Huntington, 1997: 3-72).

The democratic transition as any continuing process has its own factors, variables, or determinants known as "causes affecting the policy makers' recognition, and driving them to adopt specific patterns of behavior to deal with its content positively to achieve a sort of democratic political systems" (Al-Ramadani, 1991: 162-141). And these factors also can be defined as the motives for the political decision-makers to take decisions that would change or modify the political reality in a specific time period towards democracy.

Based on this perspective, the political transition towards democracy in Jordan is considered to be the result of political and sovereign decisions taken and implemented in Jordan forced by motives that may include local, regional, international, combination of these motives together, or as a result of the interaction of these motives with each other. Thus, these headlines fall within the context of democratic transition in Jordan and as follows:

- i. Local Factors: Those are the set of internal factors characterized by relative permanence including the geographical, population structure, economic, security, leadership, and education factors.
- ii. Regional Factors: Those are the factors resulted from the Jordan's natural interaction with its geographical surrounding, such as: the Arab-Israeli conflict.
- iii. International Factors: those are the set of external factors that are characterized by being temporary ones, such as: development of the new world order, the collapse of the Soviet Union, the international pressure, and the foreign aids.

One of the internal factors that assists in the process of democratic transition is the political culture which determines the direction and speed of the transition process. Incidentally, we have to distinguish between the citizens' permanent cultural patterns and the short-term trends of the public's reactions towards certain events, as well as between the elite's culture and the culture of the public. Notably, the cultural factor is considered to be less important and more adaptable at the beginning of the transition process; nevertheless, it becomes more important as the process of building of democratic political institutions continues, then it becomes inevitable in the process

of promoting democracy (Attila, 1998: 17). When we analyze the reality of political culture during the democratic transition process in Jordan, we find that this factor played an important role but not a central one. In other words, the citizens' pursuit to achieve the democratic life and political participation was not as a result of a former lack of political culture that once they got they resorted to democracy. On the contrary, the situation of political culture had been in existence since a long time due to certain considerations that Jordan witnessed including the abundance in the political events and as a result of Jordan's need for the investment in human resources given that the lack of physical resources.

Gugliard believes that education, whether formal or informal, is the center of the development of democratic and cultural dialogue among nations, particularly after most of them are becoming nations of multi-compound cultures (Gugliard, et al, 1995:54-57). Also, Evron believes that educational policies under the transition to democratic life should be centered on the development of human resources, directing and utilizing them in order to influence the multifaceted relationships of human activities and the development of societies and their cultural, social, religious activities in addition to enhancing levels of mutual understanding, and integration within the same society as well as among other societies (Evron, 2007: 10-31).

To achieve a successful transition towards democracy, the educational systems should serve to instill the meaning of understanding and mutual respect among community members of different affiliations, along with activating the human rights of all individuals. In this context, the educational process works under the transition process towards the democratic life to abandon ideas of groups that claim a monopoly on facts to provide the opportunity to accept new ideas. The democratic transition also assists the society to accept the opinions of each other as well as the other cultures. Perhaps the society members' unawareness of the characteristics of each other and the implications of democracy are major impediments against the democratic transition and the dissemination of the principles of tolerance. Thus, part of the major educational objectives is to help students understand the social relations and the systems surrounding them in light of the state and society tendency to realize a democratic life (Gugliard, et al, 1995:54-57).

According to Hoffman, the end result of Jordan's decision to move towards the democratic life that it has started to teach students life skills aimed at teaching them to live with the culture of peace which focuses on providing them with the confident behavior and personal enduring commitment to peace (Hoffman, 1995: 15). This has been confirmed by Nussbaun (Nussbaun, 1997:26) that the education of students, in particular, and the public, in general, the culture of living peacefully in a democratic atmosphere following resolving disputes with neighboring countries shall lead to the development of special abilities of the students which shall qualify them to sustain stable political and social lives. However, some researchers found it difficult to teach students the culture of peace, especially when they have suffered from the effects of violence in the states at odds. Indeed, this has pushed them to adopt positive attitudes but towards the war (Punamaki, 1999: 127, and Gillett, 1974:23).

This motivated other researchers such as Eisner (1994) to believe that the democratic transition process in Jordan had an opportunity to initiate educational programs designed to create positive attitudes among students towards the peace process with Israel in addition to spreading the principles of tolerance and concepts of acceptance of the others. Therefore, schools have been the best places to spread the concepts of democracy that will build students' way of thinking and their attitudes toward new visions consistent with the resolution of armed conflicts via the democratic notion being closest to peace (Eisner, 1994:97). Additionally, others have emphasized that the democratic transition phase seeks to promote stability, security and mutual

respect through the inculcation of meanings of tolerance among students and in the community where these concepts are difficult to be taught in non-democratic atmospheres (Chalmers, 1999: 173 and Efland, et al., 1996:95)

4. Education and democracy in Jordan

Notably, the political leadership in Jordan has not stopped at the point of constructing various educational institutions and encouraging the private sector to contribute to the educational process prior to initiate the transition towards the democratic life. Yet, it sought to direct education towards predetermined political objectives represented in the organization of the Conference of Educational Development in 1987. This conference called for the constant review of the educational process through the methods of training, rehabilitation, modernization and the evaluation of all the components of the modern educational process. Interestingly, the results and recommendations of the conference concentrated on the issue of focusing on students and to consider them the center of the educational process in addition to the unprecedented emphasis on their rights as individuals. This necessitates the pursuit of simulating the Western democratic model in education. Additionally, the educators noted that the general decision focus was to provide the students with the opportunity to express themselves away from the beliefs of traditional education which were based on the methods of lecturing, recitation and memorization. Thereby, enhancing the students' capabilities to interact and understand the views and to grasp the concepts of variation which are the pillars of democracy.

As a historical proof of the processes to prepare the society by the political system to acknowledge the democratic life and to contribute to its success is the nature of the history of the Arab education in general. In 1946 an Arab conference sponsored by the Arab League was held and devoted to the unification of the curricula in the Arab countries on the basis of the nation's history, values and beliefs. The attendees of that conference approved four bases underlying the educational curricula including: the philosophical basis stemming from the nation's beliefs and values, the social basis that takes into consideration the nation's habits, ideals morals, traditions and the development, economic and social needs of the society, as well as future needs, the psychological basis which is based on the needs of student development. Finally, the knowledge basis related to the scientific and technical progress.

Since democracy is a comprehensive system for all political, economic, social, cultural and intellectual spheres, it is necessarily linked to education to a great extent. Democracy cannot prevail in any society unless education is spread besides community awareness of the rights and obligations under a fair system of governed by freedom, justice, equality and the positive participation of all individuals in the political decision-making (Rashdan, 2003:85-95).

We also find that the motive that assisted the political system to modernize and guide the education towards the democratic life is the international organizations- especially UNESCO and some western countries – requiring the Arab world to necessarily change the educational curriculum to focus on the culture of peace and human rights. For example, the Plan of Canada content- entitled The Educational Reform– to emphasize the need to create professional projects for the local community with the aim to provide job opportunities and to reject the disciplines that are not required by the labor market such as literature and religious majors.

The educational system, whose overall decisions is based on the Jordanian general policy-maker, has realized the need to provide the educational process with a sufficient number of qualified teachers who are able to implement those curricula. Therefore, the political efforts has sought to update this important hub of the educational process resulting in the increase in the rate of

students aged between 6-11 years to be 93% in 1980. As per the rate of the students whose age category is between 12-17 years, it has been 68% and the number of qualified undergraduate 26% of the total population. Indeed, this case has been in existence prior the democratic transition (The United Nations Educational, Scientific, and Cultural Organization, 1989: 3-49).

Based on the above, we find that the political system has discovered earlier that the development of education is not just an option, but a necessity imposed by the rapid and successive change that outlines the nature of modern life in the era of globalization. Also, this system has found that the education development is one of the crucial solutions for internal crises. Additionally, it has realized the need to utilize the educational process in achieving the objectives of sustainable development, which means focusing on programs and plans that can be implemented in professional, behavioral and scientific fields. Also, it refers to the need for achieving the well-being and prosperity of the society taking into account environmental factors and the maintenance of natural resources.

In addition, the political system sought to achieve a high degree of harmony between the educational system of Jordan and the demands of globalization. This is to keep pace with developments of the contemporary era, liberating human being, and changing humans' ways of living through education, training, employment, innovation, and opening up broad prospects for the empowerment of individual freedoms and consolidate the role of the effective participant citizen with an open-minded personality.

In this regard, one has to acknowledge that the Jordanian political system, which manages the educational process, has succeeded to some extent – compared to certain current condition of other Arab regimes - to explore the prospects of the future educational and political horizons. It also has realized the need to have a profound educational revolution that is concerned with the mechanisms of globalization which have contributed to highlight the existing deficiencies in the behavioral structure and values of all societies, particularly the developing countries. Also, the political system has been conscious of the need to achieve a real revolution in the education sector so that it can contribute to the anticipated physical and moral production. Therefore, to keep the system and its natural components away from risks of underdevelopment compared to the rapid progress in various fields. Perhaps one of the deficiencies of the developing countries- according to the officials of the World Organization for Education, Science and Culture- is the inability of some systems to accommodate the need to utilize educational dimension to achieve the modern technological and economic achievements.

Jordan has achieved significant educational strides that greatly affected the growth of society and its development as a result of the activation of the relevant educational laws. Pursuant to the Education Act No. 16 of 1964, Law No. 27 of the year (1988), equal educational opportunities were provided for all who reached the age of the obligatory education level. Also, a school is to be established for each inhabitants gathering. Additionally, the Jordanian Constitution has guaranteed education for all residents on its territory, regardless of their nationalities and equated between the Jordanian and Arab citizen in these rights. Thus, the proportion of illiteracy declined and Jordan becomes in the lead of the world countries of the with regard to the low illiteracy rate (11%). Furthermore, the increased access to education has increased the proportion of awareness among the community members inspiring many of them to take part in the political life (Alfrejat, 2002: 20-119).

Jordan's history reveals such a political awareness as demands for political participation embarked on since the foundation of the Emirate. Nevertheless, control of the executive authority, the martial law and the emergency law which were in effect led to the suppression of

such claims. Taking in consideration that many of these claims had a counter attitude of that of the political system at that time (Alfrejat, 2002: 20-119)

The educational system in Jordan has provided the increasing numbers of people with real opportunities to get to know their rights and responsibilities and helped them to play a part in the public life. Definitely, means of modern technology have also contributed to raising awareness and promoted the process of education in Jordan. Jordan was the first among Arab countries that encouraged its educational system to use computers and means of modern information and communication, in addition to the use of satellites in education (Kuwari et al 1996: 32-76).

Schlotter, Dinson, Mary Bowman, and Baker studies at the United States of America revealed the value of investment in humans in people. In one of those studies, it was found that (36% - 70%) of the increase in the national income during the period 1929-1957 was attributable to educating workers. Another study showed that (50%) of the increase in the national income for the years 1911-1961 was attributable to the improved level of education, this was promoted by the results of another study indicated that education contributed to a rate of (42%) increase in the national income. Aukrust also concluded in his study about the Norwegian economy that (50%) of the economic growth rate during the period 1900-1955 reached (3.39%) annually and that was due to education (Altunsonce, 1999:16). In this context, scientific studies have shown that (34%) of the economic growth is due to new scientific knowledge, and (16%) resulting from investment in human capital through education. In other words, (50%) of economic growth can be attributed to education in its comprehensive concept (Apostle, 2005).

Studies suggest that education expenditure and investment in Japan reaches up to (16%) of the GDP and in the United States nearly (20%) of GDP is invested in education and training in general while the higher education share reaches about (7.5 %) of the GNP. Empirical studies in the field of economics of education have proved the importance of investment in the human capital in addition to its impact on economic development and that the true output of achievement is directly linked to the number of years devoted to education (Al Shri' et al, 2005). Based on that, the impact of the educational factor is not limited to the direct impact on the democratic transition but it extends to include other factors such as the economical factor which represents the central engine of the process of the democratic transition, especially the growth in GDP. Lipset's hypothesis indicates that the economic prosperity pushes for more democracy justifying this hypothesis in that democracy can flourish and everybody can be allowed to participate in elections only in rich countries inhabited by small numbers of the poor (Lipset, 1994: 1 -22). However, "Siroway and Inkles" (Siroway and Inkles, 1990 : 126-57) and "Przeworski and Limongi" (Przeworski and Limongi, 1993 : 51-69) believe that there is no relationship between democracy and economic growth. This means that education has a direct impact on the democratic transition and an indirect impact through the impact of education on other factors affecting the democratic transition, most importantly is the economical factor which is the major engine of democratic transition.

5. Democratic Life at Universities

University life is a transitional stage between the secondary school and the practical life. It is the stage where the student's intellectual and scientific personality is formed and through which he/she becomes qualified to enroll into the practical life. In order to improve the student's intellectual from a political perspective, the Law of Jordanian universities stipulates the establishment of student councils in each public and private university. These councils serve as the parliament having the same divisions that are in force in Jordan, i.e., the students' House of Representatives and the Upper House where we find that the Council consists of elected students

(House of Representatives) and the other is appointed by the President of the University (the Upper House) according to the bases and standards stated in the regulating instructions of the work of these councils issued by each university.

The democratic methods are exercised at the Student Council in terms of election, discussion and meetings besides that it activate the role of students in the university decision-making related to students. The instructions of the Student Council as per university shall be issued separately. In the meantime, when examining such instructions, it was found that they are similar. Here, we will examine the Instructions of the University of Jordan as a model of these councils. These councils aim at supporting the students activities in the scientific, social, cultural and sports spheres at the university as well as promoting the spirit of cooperation, the concept of teamwork, following up students issues, make them aware of their duties, coordinating with the university management to solve their problems, and developing the democratic practices, the spirit of dialogue, respect of others and the development of the student's integrated personality that is conscious to the issues of promoting the interest in the nation's concerns and to promote the belonging to the university, the homeland and the nation within the values of the Arab-Islamic civilization and heritage. Additionally they aim to provide opportunities for positive interaction between the student body and departments, faculties and the university management, to support the academic process, and to cooperate with the University in providing aid and assistance to the needy students (University of Jordan, 2010). The Students Council is composed of a number of students where half of them are members of the public board, and the university President appoints the other half. The elected students are distributed among the faculties by at least one member from each faculty in addition to a number of heads of Student Clubs and activists in the field of student affairs. The instructions considered each college at the university as one electoral district. (University of Jordan, 2010).

An administrative committee shall be responsible for managing the Council affairs composed of the President, Secretary, and the heads of the permanent committees of the Council. These are the Financial Committee the Voluntary Work and Community Service Committee, the Foreign Relations Committee, and Students Affairs Committee, and Student Activities Committee.

The administrative board shall be responsible for the following tasks: the election of the Treasurer among its members, the implementation of Council decisions and follow up its recommendations, the preparation of the draft budget of the Council, supervision of Faculties Committees and monitor their performance, providing a draft of an action plan for the students programs and activities, and finally examining the student issues and propose appropriate solutions, (University of Jordan , 2010).

Each university determines the internal bases to conduct the Student Council elections. Additionally, students at Jordanian universities practice the democratic methods through their participation in the elections of their representatives at the Student Clubs as well as the scientific, methodological, and student committees at university.

6. The impacts of politics at education and the democratic transition

Gubser believes that it is impossible to separate the educational system and its development in Jordan from the development of the political events and their outcomes. He justifies this by stating that the educational system has served the government's policies, and contributed in shaping the identity of Jordan to a large extent. He added, "The educational factor was closely linked to the national identity in Jordan, particularly because of the urgent need to guide the society towards unity, cohesion and integration between its classes under the displacement of

large numbers of Palestinians to Jordan since its independence,” (Gubser, 1990:15-16). Thus, education had been a powerful tool to play a vital role in maintaining social cohesion and impeding attempts to threaten the political and social stability. Also the political culture played an important role in the introduction of political openness and political pluralism. This was noted by the researchers who commented, “The political openness that Jordan witnessed contributed to the increase in the number of educated citizens among the eastern Jordanians influenced by the democratic ideas, modern politics, the approach the modern democracy (Al Kuwari et al, 2002: 32-76)

However, the Arab-Israeli conflict has played a significant indirect negative role towards the democratic culture which dominated the Arab mind and conscience. Also, it drew the people public attention towards the external risks they face more than the attention to the democratic life or the issues related to the participation in the legitimate authorities and getting the public freedoms (Al Kuwari et al, 1996: 32-76).

Based on that, if democracy is linked to all areas of life, then its association with the field of education is solidier and closer (Alfrejat 2002: 20-119). It is known that education essentially helps to consolidate the political and social stability (Alfrejat, 2002: 20-119).

As per the provisions of the Education Act No. 3 of 1994 -Article 3- pertaining to the philosophy of education that emerged from the intellectual, national, humanitarian and social conceptual bases. All these bases are centered on the principles of democracy, and social foundations, such as: “Jordanians are equal in rights, duties, respect for individual freedom and dignity” taking in consideration that democracy is a relative concept with regard to application and it is very similar to the concept of relative freedom. Meanwhile and absolute democracy or freedom has proved to be impossible to achieve in any society up to date (Alfrejat, 2002: 20-119).

As a proof that sustains the democratic approach in the Jordanian education is the Late King Hussein's speech to the Arab nation as of 23/11/1992 in which he underlined the democratization of education, stating, "We chose, in this country, the resumption of full stage of political democracy as we have succeeded in spreading the educational and cultural democracy. We were and still address our issues by tolerance and forgiveness proceeding from the consolidated foundations that control our eternal political faith in terms of our beliefs and civilization and to raise the flags of freedom, justice and the dignity of the human as an approach and a guiding light. Within these adopted rules we see Jordanian democracy as a model to be resembled and an irreversible option for our people and that our commitment to freedom and justice and human rights and dignity is a firm commitment whose intellectual, approach and a message shall extend to the land of the whole nation "(Alfrejat, 2002: 20-119).

7. Conclusion

Jordan has replaced its scarce natural resources with the human resources for the economical, social, and scientific advancement. The issue of human resources development has occupied a great interest in political and planning departments. Thus, Jordan's most important policies have been to encourage its citizens to seek knowledge and this resulted in the identification of the human resource development efforts to be in the form of quantitative and qualitative expansion in the educational, training and qualification sector at all its levels and forms.

Therefore, Jordan has witnessed a significant development in all political, economic, social, cultural, and educational aspects. Despite the scarcity of the resources of this country and the limited economic potential, it is classified in the forefront of the world countries in the field of education development. Indeed, it was stated in the report of the United Nations Human Development in 1997 that Jordan has the best curriculum among Arab countries in all standards measured by, and it is one of the first twenty countries in the world pursuant to these standards. The report of the international organization UNESCO on education for the year 1998 stated that Jordan has the highest rate of higher education certificates bearers among the Arab States and the third highest rate in the world compared to the population (Al Ma'ani, 2000).

The observer of the education course of development in Jordan shall note that the factors influenced education during 1920s are significantly different from those that we are witnessing these days. The number of schools did not exceed 44 schools when the Emirate of Jordan was established due to economic, political and social reasons. Subsequent to independence, Jordan has witnessed an unprecedented and immense increase in the number of schools, teachers and students. The number of schools was more than 4500 schools by the end of the academic year 1996 – 1997 according to the statistics of the Ministry of Education in 1997. As per the fact that the education sector is one of the sectors that are affected by the evolution of the world developments and changes, the interest in formal education has increased dramatically leading to the development of political awareness of the Jordanian society. As a result of the status of political awareness, there has been awareness of the rights and duties of the various people segments that led to the development in their way of thinking towards the importance of political participation. Thus, the educational dimension significantly contributed in bringing about the political crisis that took place in 1989 which resulted in the birth of a democratic life where the existing system at that time take part in along with the local community. Following that, the educated groups began to call for more political openness, political participation, and the gradual transition to adopt a democratic approach.

It could be argued that the existence of intellectual elite that have an intellectual depth represented by the large numbers of educated individuals and openness to foreign cultures might have contributed to the raising awareness and the political common sense of the people towards the national issues particularly the need to resort to the democratic system as a natural approach and the possible solution to political problems. Additionally, there is the accumulated experience of practical politics available to the Jordanian society - as the political and cultural elite figures occupy socially advanced centers since Jordan has more than 30 public and private universities and dozens of colleges and public and private institutes where approximately 250 thousand university students joining them, as well as 1.5 million students joining primary and secondary school stages who make up nearly 33% of the Jordanian society. This is a good indicator of the progress achieved by the education sector and the unparalleled level of political awareness that is ever-increasing among them. If the efforts of the political leadership are added to these educational factors in the establishment of democracy in all the state institutions in general and education in particular to create a generation who is inspired by democracy, freedom of expression and open dialogue, then the interrelation between education and democratic transition can be understood (Al Masaeed 2001: 13-52).

The absence of institutional democracy based on educated and open individuals is considered one of the reasons that led to the suffering of many of the world nations and their ignorance and disintegration. It could be argued that the role of the educated has stopped to call for the democratic life (Ramses, 1984: 88). Therefore, democracy is currently practiced in Jordan in a

clear and significant way, especially in the field of education. This has been assisted by the general atmosphere prevailing in Jordan, which is dominated by a spirit of democracy under the direct directives of HM the King to the successive governments to work to establish the meanings of democracy, justice, equality and the achievement of public and personal freedoms. Additionally, the instructions issued by the Ministry of Education emphasize the importance of serious and effective participation by teachers and students in decision-making, freedom of opinion and expression and the delegation of authority...etc. that contribute promoting the democratic life (Al Masaeed 2001: 13-52). It also can be said that the interest in the educational system following the democratic transition is still active by both the ruling regime as well as the Jordanian civil society, especially in light of recognition of the importance of this system to keep pace with the march of advanced systems at all levels by everyone (Al Rashdan 2003:85-95).

It is apparent that the importance of education and higher education in economic development, social and democratic transition, in addition to the outputs of education at all its levels and specializations are reflected directly and indirectly on the degree of economic, social and technical progress. Indeed, to attain the objectives of education and maximize the role in those aspects, its objectives, policies and strategies must correspond and be consistent with this significant role and to adapt to the economic, social and international changes. Also, since the university education is the final outcome of the educational process, and the that the output of basic and secondary education are the most important inputs for universities, then the university education can be considered the measure and indicator of success of the pre-university education. Furthermore, the educational factor can indirectly affect the democratic transition through the economic factor. Education in Jordan is an investment in itself besides that the Jordanian educated powers contribute to generating economic growth and thus double the impact of the educational on the democratic transition, and serve as an element of promoting democracy in the country.

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Determinants Analysis of Customer Switching Behavior in Private Banking Sector of Pakistan

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Abstract

In this competitive retail banking market of Pakistan, customer switching is injurious for every bank. Banking sector reforms and emerging of foreign and domestic private banks with vast range of new banking products change the banking perspective in Pakistan. This diversity could make a positive or negative impact on banks customers' loyalty and switching. This study investigates the seven factors (Price, Reputation, Service Quality, Effective Advertising Competition, Involuntary Switching, Distance and Switching Cost) of customer switching which effects retail banking operations in Pakistan. These factors never examined before. The primary objective of this study is to identify the factors that influence customers' switching and determine the most important and least important factor that influence customers' switching behavior. Total 302 responses was recorded and show that all considered factors have significant effect on customer switching, however, 'price' and 'advertising competition' identified as most important and least important influential factors respectively on customer switching.

Keywords: Customer satisfaction; Service Marketing; Retail banking; Price; Advertising; SERVQUAL; Pakistan.

1. Introduction

Customer switching and loyalty generally are two opposite split ends for future profit realization for any company. Customer switching ends with losing customer and affect the future progress of business and loyalty helps sustain of business. Loyal customers normally establish a stable relationship with an organization compared to non-loyal customers (Zeithaml, et. al, 1996). Loyalty directly related to customer switching and inversely related to operating cost. Customer switching means customers makes to stop purchasing particular services or patronizing the

service firm completely (Bolton and Bronkhurst, 1995). Customer loyalty has been viewed by some researchers as a specific desire to continue a relationship with a service provider (Czepiel and Gilmore, 1987).

According to Stewart (1998), many literatures on 'customer relationship' advocate the establishment and development of longer-term relationships with customers. Banks are also the part of business in any environment. Customer switching is also a challenge for existing banks of competitive city of Karachi. Anderson et al., (1994) affirmed that customer satisfaction compels future profitability. It is a vital measure of performance for firms, industries, and national economies. Heavy use of satisfaction surveys by service industries is driven by the assumption that a satisfied customer will return for a repurchase (Jones and Sasser, 1995). We sought to assess this question: does satisfaction always imply customer loyalty? We had two possible reasons for a negative answer: First, dissatisfied customer may still continue his/her patronage if he/she expects no better from alternative suppliers. Second, satisfied customer may be willing (or even eager) to patronize alternative suppliers hoping to receive even more satisfying results (Rust and Zahorik, 1993).

Cronin and Taylor (1992) suggested that the customer/ employee encounter can have a significant impact on both customer satisfaction and sales performance. Pakistan has diverse back ground people with different mind sets. As Khan and Amine (2004) stated that many geographic origins, ethnic identities, and different value systems of people in Pakistan, care should be taken when targeting consumers. So their different preferences and values can effect the business of banks of Pakistan. Tornow and Wiley (1991) showed a positive relationship between the perceptions, attitudes, and intentions of employees and customers. Presentation or visibility makes influence on customer satisfaction. One study shows that, physical features of the service system may influence both customer satisfaction and purchase behavior (Sulek et al. 1995). Banking sector reforms and emerging of foreign and domestic private banking industry with vast range of new banking products and change the banking perspective in Pakistan can make positive or negative impact on banks customers' loyalty and switching. Akhtar (2001) revealed that profitability, trade financing, following the clients, diversifying the risk and market size are important factors in the banking industry of Pakistan.

In this research, factors were taken from the Zhang (2009) study which is used to analyze the factors affecting the customer switching of banking industry of Pakistan.

1.2 Research Purpose and Objectives

This study explores the factors influencing customers' bank switching behavior in the Pakistan retail banking industry. The research objectives of this study are:

- i. To identify the factors that influence customers' switching in the retail banking industry of Pakistan.
- ii. To determine the most important factor that influence customers' switching behavior in the retail banking industry of Pakistan.
- iii. To determine the least important factor that influence customers' switching behavior in the retail banking industry of Pakistan.

2. Literature Review

2.1 *Switching Behavior and its Effect*

Switching behavior define early chapter that defection or customer exit (Stewart, 1994). According to Boote (1998); Bolton and Bronkhurst (1995) switching behavior imitates the decision that a customer makes to stop purchasing/ business with a particular service or patronizing the service firm completely. According to Garland (2002), from the context of banking industry, customer switching behavior means that customers' shift from one bank to another or customer choose other bank to take its services.

Levesque and McDougall (1996) conclude that service problems and the bank's service recovery ability have a major impact on customer satisfaction and intentions to switch. Reichheld (1996) finds that customers' switching behavior reduces firms' earnings and profits. Old customers generally generate more business than new ones. According to Matthews and Murray (2007), long term relationship with customers can minimize the negative effects of defection.

2.2 *Switching Factors*

2.2.1 Price and its Importance

Price is an attribute that must be given up or sacrificed to obtain certain kinds of products or services (Zeithaml, 1998). In this inflationary period people of Pakistan are quite sensitive for price as Khan and Amine (2004) stated that low-price and very low-margin strategy represents a key opportunity for bankers of Pakistan. In the financial service industry, price has wider implications than in other services industries because money is matter in money issues (Gerrard and Cunningham, 2004).

Customer satisfaction is recognized as being highly associated with product price (Mavri and Ioannou, 2008). Several studies show that price has an important impact on customers' switching decisions (Stewart, 1998) these loyalty behaviors include an increase in a decrease in price sensitivity (Neira et al., 2010).

2.2.2 Reputation and its Importance

Reputation has been described as a social identity, and an important and intangible resource that can significantly contribute to a firm's performance and its survival (Rao, 1994). Reputation is a key asset to firms as it is valuable, distinctive, difficult to duplicate, non-substitutable, and provides the firm with a sustainable competitive advantage (Wang et al., 2003).

Reputation is identified as key ingredient to retain customers in the services sector. According to Muffato and Panizzolo (1995), the reputation plays a key part in measuring customer satisfaction. Product quality and services produce benefits not only by lowering costs, but also by increasing competitiveness through the establishment of a good reputation and the attraction and retention of customers (Wang et al., 2003). Bloemer et al. (1998) study results reveal that image is indirectly related to bank loyalty via perceived quality.

2.2.3 Service Quality and its Importance

Intangibility is the main characteristic of Service. It cannot transfer and store. Services are typically produced in the presence of the customer, and customers often participate in the production process (Tornow and Wiley 1991). Service is largely intangible and is normally experienced simultaneously with the occurrence of production and consumption, and it is the interaction between the buyer and the seller that renders the service to customers (Gronroos, 1988). Service organizations generate value through the delivery of an intangible, and intangible services are difficult to describe to new customers. It is like-wise difficult for customers to express precisely what they expect from the service. Because there is no agreed objective standard about the service to be delivered, the only criteria available to evaluate service quality are subjective comparisons of customers' expectations to their perception of the actual service delivered (Zeithaml et al. 1990). It has been reported that more than 70% of the defection of customers in the financial services sector is due to dissatisfaction with the quality of services delivered (Bowen and Hedges 1993).

Today's customer is quite typical when he or she on receiving end According to Oliva and Sterman (2001), customers do not evaluate service quality solely in terms of the outcome of the interaction; they also consider the process of service delivery and in the absence of accurate assessments of service quality and customer satisfaction.

To judge service quality SERVQUAL scale used widely by researchers in academic and applied research settings. SERVQUAL scale have five components, according to Zhang (2009), *tangibles* are physical facilities and amenities, equipment, and appearance of staff/ personnel, *reliability* is the ability to perform the promised service dependably and accurately, *responsiveness* is the willingness to help customers and promote service, *assurance* is knowledge and courtesy of employees and their ability to inspire trust and confidence, and *empathy* is caring such as individualized attention which the employees provide for its customers.

It depends on researcher and research requirement that what service aspects are going to be tested. Ennew and Bink (1996) study bank customers in the United Kingdom and develop three banking service quality dimensions in SERVEQUAL scale. Avkiran (1994) examines service quality in the Australia retail banking industry and identifies four dimensions containing 17 items based on the SERVQUAL model.

2.2.4 Advertising and Importance of Effective Advertising Competition

This is the era of advertising, human, sports equipment even install machines in plant working as the advertising channel for firms. Any paid form non personal presentation and promotion of ideas, goods or services by an identified sponsor" (Kotler and Armstrong, 2003). According to Cengiz et. al, (2007), advertising are actions undertaken to enhance the image of a service or increase sales of firm or business, and the main purpose of advertising is to inform the potential customer of the characteristics of products or services. Firm can struggle alone because of lack or ineffectiveness of advertising. Becker and Murphy (1993) developed the model and treated advertising as a complementary good, and proved that consumers may simply derive more utility from consuming a more advertised good. Jamal and Naser (2002) pointed out that, a satisfied

customer is expected to be more likely to form future purchase intention, engage in positive word of mouth advertising.

Davies (1996) states that advertising make strengthen the communication between organizations and customers, it reduces consumers' perceived risks. Cengiz et al. (2007) study on banks' customers' behavior of Turkey and find that efficient advertising could enhance and increase the bank's customer loyalty and help in retaining customers.

2.2.5 Involuntary Switching and Importance of Involuntary Switching

Those factors which uncontrolled for customers or businesses and enforced to customer to switch called "involuntary switching" (for example Illness, change of house location). Keaveney (1995) explain the factors beyond the control of either customers or the service providers as involuntary switching factors. Moving house, changing jobs, or branches being closed in their resident area of customer are the examples. Switching behavior is caused not only by distinct decision, but also by involuntary factors not related to the distinct decision (Roos, 1999). In addition, Ganesh et. al, (2000) conclude that involuntary switches represent the most common switching behavior in their studies.

2.2.6 Distance and Importance of Distance

Convenient, easy and near location could be the first priority for many customers and they forge the other crucial point of service. Keaveney's (1995) point out that under the inconvenience category, a location is an important factor for service provider which influencing switching behavior. Location has special meaning in the financial service industry because it is at the branch or office that banks and the customer are connected; it is where the customers have their accounts (Peppard, 2000).

According to Levesque and McDougall (1996), that convenience also contributed to customer satisfaction and positively effect on customer satisfaction. Similarly, Levesque and McDougall (1996) argue that convenient location also make impact on customers' evaluation about firms' performance. Gerrard and Cunningham (2004) examine the Singapore's graduates' bank switching behavior and find that inconvenience is the most important switching factors.

2.2.7 Switching Cost and Importance of Switching Cost

Switching cost is a catch-all phrase to describe the variety of costs, financial and non-financial, occurred in changing suppliers (Matthews and Murray, 2007). Lee et al. (2001), find the three types of switching costs. The procedural costs, which involve mainly the time and effort spent, consist of economic risk, evaluation, learning and setup costs. The financial costs consist of financial loss costs and benefits. The relational costs involve psychological or emotional discomfort due to identity loss or linkage breaking. Fornell (1992) added switching costs to customer satisfaction in the customer loyalty function. Furthermore, Jones et al., (2002) states switching cost has a significant effect on repurchase intention.

In a retail bank context, Beerli et al. (2004) showed that customers' switching cost is a direct antecedent of loyalty. Switching cost is also considered a mediator of the satisfaction-loyalty relationship (Aydin et. al, 2006). These costs discourage customers to leave the current

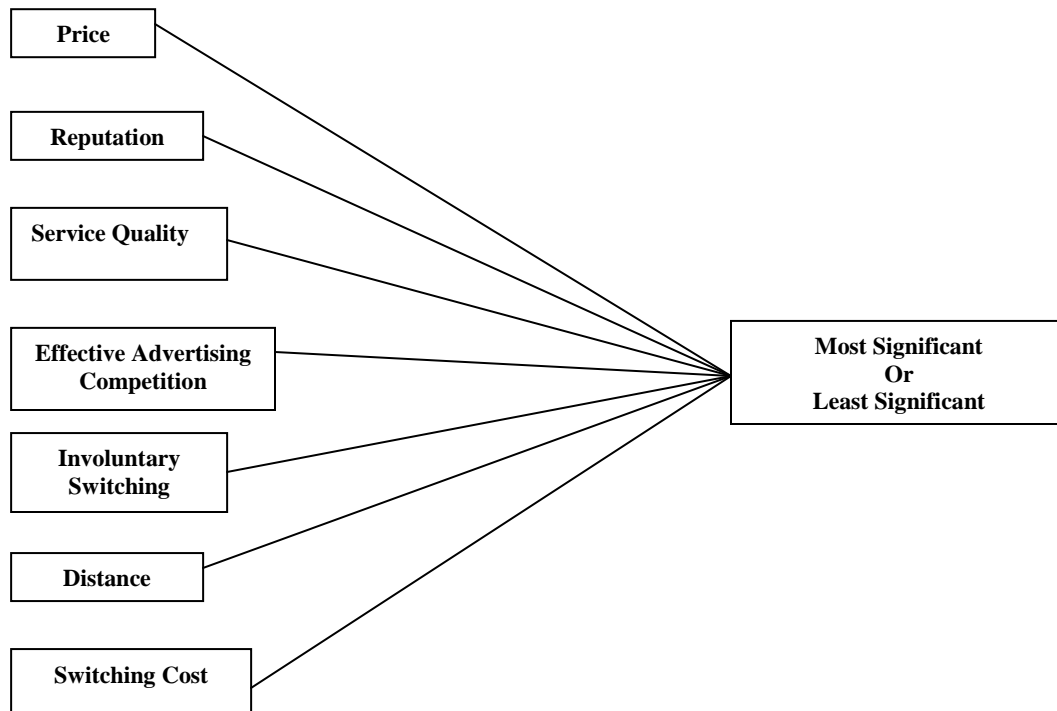
organization because customers may perceive switching costs to be higher than the expected benefits of changing service providers (Lees et al., 2007). According to Jones et al. (2002), switching costs can be thought of as barriers that hold customers in service relationships.

3. Research Methodology

3.1 Theoretical Framework & Objective of the study

Seven factors taking into consideration to analyze their individual effect/ affect on customers switching in banking industry of Pakistan, which were examined in Zhang (2009) study. Factors examined from most significant to least significant the research give brief detail about the factors that influence customers’ switching behavior and most important and least important factor that could have been influence customers’ switching behavior in the retail banking industry of Pakistan.

Figure 1: Research Model of factors Influence Customers’ Switching Behavior



3.2 Hypotheses Development

On the basis of available literature review seven hypotheses are developed to answer two research objectives.

H1: There is a positive relationship between an unfavorable perception of price and customers' switching banks.

H2: There is a positive relationship between unfavorable bank reputation and customers' switching banks.

H3: There is a positive relationship between unfavorable good service quality and customers' switching banks.

H4: There is a positive relationship between effective advertising competition and customers' switching banks.

H5: Involuntary switching factors affect customers' switching banks.

H6: There is a positive relationship between unfavorable perception of distance and customers' switching banks.

H7: There is a negative relationship between high switching costs and customers' switching banks.

3.3 Sampling and Data Collection Procedure

To achieve the research objective a self administrative survey was conducted in Karachi where 20 major private banks and their branches are present and were covered in the study. The population of banks was comprises on the member banks of Pakistan Bank Association (PBA). The data was collected through a convenience sample method, by which of individuals were selected randomly and irrespective of their banking purpose, gender, occupation or income. This survey took 52 days to complete.

The population of this study comprises the retail bank users of Karachi. According to Sekaran (2003), sample statistics need to be reliable and represent the population parameters as closely as possible with a narrow margin of error. Due to time constrain, random sample technique applied in which a sample represents the actual population. Eight main areas visited for the survey of retail banks of Karachi which includes I. I. Chundrigarh Road, Clifton, Defence, Gulshan e Iqbal, Gulistan e Jauhar, Nazimabad, Tariq Road and Water Pump. The findings of the study interpreted and implement on the whole retail banks of Pakistan since all banks head offices and branches are operating from Karachi all over the Pakistan. 500 questionnaires were randomly distributed out of which 359 were returned with the response rate of 71.8% of distributed questionnaire. In total 302 found correct for analysis and 57 were rejected.

Most of the questionnaires were collected through field survey, moreover, questionnaire were also send and received by using email service. After explaining the purpose of the survey respondents participate actively and were willing to assist in the survey and express their experiences with bank.

4. Research Findings

4.1 Descriptive results

The overall profile of the participating respondents' demographic characteristics is presented in Table-1. According to the table 147 (48.68%) of the respondents switched banks during the last three years, while 155 (51.32%) of the respondents did not switch banks.

Table 1. Respondent background

	Frequency	Percentage
Switch within last 3 year:		
Yes	147	48.68%
No	155	51.32
Gender:		
Male	216	71.52%
Female	86	28.48%
Age:		
36 to 45 years	125	41.39%
26 to 35 years	87	28.81%
46 to 55 years	33	10.93%
56 to 65 years	21	6.95%
18 to 25 years	15	4.97%
66-75 years	13	4.30%
76+ years	8	2.65%
Education:		
Bachelor Degree	121	40.07%
High School Education	68	22.52%
Diploma & Certificated	55	18.21%
Degree	31	10.26%
Middle School Education	26	8.61%
Primary Education	1	0.33%
Other	0	-
Occupation:		
Professional	134	44.37%
Self employed	99	32.78%
Government Servants	40	13.25%
Students	13	4.30%
Retired	10	3.31%
Unemployed	4	1.32%
Other	2	0.66%

Income:

20,001-35,000 PKR	142	47.01%
35,001-60,000 PKR	77	25.50%
60,001-100,000 PKR	35	11.59%
6,000-20,000 PKR	34	11.26%
100,001+ PKR	14	4.64%

4.2 Reliability analysis

The internal consistency reliability coefficients (Cronbach's alpha) for the scales used in this study were all well above the level of 0.7, acceptable for the analysis purpose (Sekaran, 2003). In Table-2, alpha scores of all variables with completed response of 302 respondents and 29 questions are given.

Table 2. Reliability Coefficients of the Constructs (n = 302)

Constructs	No. of Items	Cronbach's Alpha
Prices	4	.650
Reputation	3	.792
Service Quality	7	.686
Effective Advertising Competition	4	.756
Involuntary Switching	4	.755
Distance	2	.743
Switching Cost	5	.754
Overall reliability	29	.798

4.3 Descriptive statistics of main variables

Two groups of respondents are present in this study, switchers and non-switchers. The data was tested to verify whether the statistical assumptions of factor analysis and logistic regression analysis had been gathered. The correlation matrix revealed that most of correlations were above .30 as recommended by Hair et al. (2006). The correlation matrix pointed out that the data shared common factors appropriate for factor analysis.

4.4 Results Pertaining to Research Objective One (Hypotheses 1 through 7)

Logistic regression analysis was used to satisfy Research Objective One. The Table-3 shows the logistic regression results. All predicted factors are statistically significant (Chi-Square = 218.0337, P value = 0.000, Degree of Freedom = 20).

Table 3: The Logistic Regression Results for Influencing Factors

Factors	B	S.E	Sig.
Price	0.535256	0.119	0.0000**
Reputation	0.436298	0.1068	0.0277**
Service Quality	0.245678	0.1098	0.0000**
Effective Advertising Competition	0.25647	0.1044	0.0468**
Involuntary Switching,	-0.15690	0.1368	0.0315**
Distance	0.635568	0.107	0.0367**
Switching Cost	-0.12785	0.1788	0.0389*

Consequently, hypotheses 1 to 7 are summarized in table 4:

Table 4. Hypotheses testing

<i>Summary of Hypotheses Testing Results</i> Hypotheses	Result
H1: There is a positive relationship between an unfavorable perception of price and customers' switching banks.	Accept
H2: There is a positive relationship between unfavorable bank reputation and customers' switching banks.	Accept
H3: There is a positive relationship between unfavorable good service quality and customers' switching banks.	Accept
H4: There is a positive relationship between effective advertising competition and customers' switching banks.	Accept
H5: Involuntary switching factors affect customers' switching banks.	Accept
H6: There is a positive relationship between unfavorable perception of distance and customers' switching banks.	Accept
H7: There is a negative relationship between high switching costs and customers' switching banks.	Accept

As shown in table the coefficient value for all factors eg. Price, Reputation, Service Quality, Effective Advertising Competition, Involuntary Switching, Distance, and Switching Costs are significant at 0.05 level of significance. So its prove that the all influencing factors on customer switching, Price, Reputation, Service Quality, Effective Advertising Competition, Involuntary Switching, Distance and Switching Costs, are all significant. In H1, price factor positively influences customer switching behavior, and the positive relationship also exists for the Reputation factor. Thus, Hypothesis 2 is satisfied followed by hypotheses 3, 4 and 6 as well. Hypotheses 5 and 7 proposed that negative relationships exist between customers' switching behavior and impact factors.

4.5 Research Pertaining to Research Objective Two & Three

Table 5 shows the results of research objective two and three with the help of Marginal effect of sensitivity analysis. The seven influencing factors are rank from the factor analysis and the logistic regression model is ranked as follows:

Table 5. Marginal Effects of Customers’ Switching Behavior

Ranking	Factors’ Name	Marginal effect
1	Price	0.16398341
2	Distance	0.10936621
3	Switching Cost	-0.10567336
4	Service Quality	0.07095342
5	Reputation	0.06339969
6	Involuntary Switching	-0.05280674
7	Effective Advertising Competition	0.04025589

The marginal effects table illustrates that ‘price factor’ making the maximum impact on customers’ bank switching behavior in retail banking of Pakistan. The results show that a unit increase in ‘price’ results 16.4% probability that a customer will switch banks. Price has the second highest impact maker on customers’ bank switching behavior. A unit increase in the Distance factor (eg. branch close) results in 10.93% probability of customers’ switching banks. 10.56% is probability of customer switching in retail banking industry of Karachi, if one unit of ‘Switching Cost’ decreases. Similarly, Service Quality, Reputation, Involuntary Switching and Effective Advertising Competition are the fourth, fifth, sixth and seventh important factors that impact customers’ retail bank switching behavior of Pakistan (see Table 5).

5. Conclusion & Recommendations

5.1 Key findings –Research Objectives (One, two and three)

In research objective one was persuade the factors that influence customers’ switching behavior in the retail banking industry of Pakistan were identified. Logistic regression analysis’ results showed that there was a significantly positive relationship between customers’ switching behavior and the influencing factors. Hypothesis one regarding ‘price’ was supported with hypothesis two ‘reputation’. The results of hypotheses, five and seven were supported that ‘involuntary switching’ and ‘switching cost’ had negative relationship between customers’ switching behavior. Those factors which can neglect the customer switching (e.g., changing home, initial deposit at new account) also playing a part to put away the banks to lose customers. Hypotheses three, four and six about ‘service quality’, ‘effective advertising competition’ and ‘distance’ are accepted

In research objective two and three, the marginal-effect results showed that ‘price’ had the maximum impact on switching behavior. Surprisingly ‘distance’ was the second important factor influencing customers’ switching behavior, customers like to have bank at their nearest place. The third, fourth and fifth most important factors were ‘switching cost’, ‘service quality and ‘reputation’ respectively. ‘Involuntary switching’ was in sixth order. The least important factor

in Pakistan's environment for retail banking industry was 'advertising competition'. This is surprising result for least important factor, because advertising always attract customer but not here in the case of retail banking industry of Pakistan. Customers rated it as the most unimportant factor and they were not consider it as an important part of retail banking industry.

5.2 Recommendations for Retail Banks of Pakistan

- i. Pricing and distance are the most important factors to avoid customer switching, bankers must consider both factors in their future strategic planning. Banks should open their branches at small streets with service price flexibility.
- ii. Price and service quality are important factors for business community, so bankers could make strategies which consist on price + service quality e.g. special counter for business people with low charges, or one window service.
- iii. Banks must motivate their customers to follow word of mouth strategy to their friends/ relatives circles. Reputation is the second most important factor, which can work as business generator strategy.
- iv. Banks must make positive perceptions in customers' mind that, "what they are receiving at this place they will not find it in other place".
- v. Right advertisement for right people, this aspect of marketing lacking for banking industry.
- vi. To attract more customers and retain existing customers to use new and available services of banks, moreover, products must have detail & clear specifications and descriptions.
- vii. Customers perception about online system is confusing due to the user-non friendly online system. Banks must improve their inline system and make it user-friendly to increase reliability and gain the trust of customers on online system.
- viii. Banks must celebrate special occasions with their customers e.g. birthday of customer, banks anniversary and related occasions.
- ix. Bank employee should be well trained and polite. Staffs that satisfy the specific need(s) of customer in quick times must be rewarded.
- x. Banks should make their customer documents and forms easy and clear, moreover, bank should consider language barrier and facilitate the customers in this regard.

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Impact of Organizational Justice on Organizational Citizenship Behavior of Bankers of NWFP, Pakistan (An Empirical Evidence)

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Abstract

The main objective of this study is to investigate the relationship between organizational justice and organizational citizenship behavior (OCB). Distributive justice and procedural justice were taken as independent variables. Two hundreds and eighty (280) questionnaires were personally administered to private sector bankers of NWFP. One hundred and ninety four (194) questionnaires were returned which were coded for research purpose. Pearson Correlation and Multiple Regression were used for measuring the impact of distributive justice and procedural justice on organizational citizenship behavior. SPSS 15 version was used for data operation. Results of Pearson Correlation showed a significant positive relationship between distributive justice and organizational citizenship behavior and procedural justice and organizational citizenship behavior. Overall organizational justice was also found to have a significant positive correlation with overall organizational citizenship behavior.

Keywords: Impact , Organizational Justice , Organizational Citizenship Behavior , Bankers, Empirical Evidence

1. Introduction

There is a plethora of research that examines the relationship between organizational justice and organizational citizenship behavior (Moorman, 1991 and Organ, 1988). According to Nemeth and Staw (1989), Organizational citizenship can be extremely valuable to organizations and can contribute to performance and competitive advantage. According to Organ (1988) OCB is held to be vital to the survival of an organization. Organ further explained that OCB can maximize the efficiency and productivity of both the employee and the organization that ultimately contribute to the effective functioning of an organization. As Pakistan is an 'under researched' country (Aycaan et al. 2000) and no research has been conducted to test the impact of organizational justice on organizational citizenship behavior amongst bankers of NWFP, Pakistan. Therefore this study is conducted to investigate the impact of organizational justice on organizational citizenship behavior of bankers of Pakistan. This study will also add to the previous literature.

2. Literature Review

Organ (1988) has defined organizational citizenship behaviors (OCB) as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization". According to Moorman & Blakely (1995), Citizenship behaviors are those behaviors which are often performed by

employees to support the interests of the organization even though they may not directly lead to individual benefits.

Moorman and Blakely (1995), Graham (1989) and Organ (1988) who studied the structure of Organizational Citizenship Behavior, agreed that OCB was a multidimensional concept. For example, Organ identified five dimensions of OCB: 1. Altruism which means to help coworker on a task 2. Courtesy which means to alert others in the organization about changes that affect their work 3. Conscientiousness which means to carry out duties beyond the minimum requirements 4. Sportsmanship which means to refrain from complaining about trivial matters 5. Civic Virtue which means to participate in the governance of the organization.

Graham (1989) identified four dimensions of OCB:

- i. Interpersonal Helping which means to help coworkers on a task when such help is needed,
- ii. Individual Initiatives which means to communicate to others in the organization to improve individual and group performance,
- iii. Personal Industry which means to perform specific tasks above and beyond the call of duty
- iv. Loyal Boosterism which means to promote the organizational image to outsiders. In this study, OCB was measured by the four dimensions identified by Graham (1989).

Organizational justice refers to the overall fairness of the organization reward system and the perceived fairness of the actions of individuals responsible for implementing the rewards allocation system (Cropanzano and Greenberg, 1997). According to Niehoff and Moorman (1993) Distributive justice is the degree to which rewards are allocated in an equitable manner. Procedural justice is the degree to which those affected by allocation decisions perceive them to have been made according to fair methods and guidelines (Folger & Konovsky, 1989, and Greenberg, 1990).

There is a treasury of researches that have proved the relationship between organizational citizenship behavior and organizational justice. For example, Chegini in his article "The Relationship between Organizational Justice and Organizational Citizenship Behavior" proved by taking three hundreds respondents as a sample that there was a significant positive correlation between organizational justice and organizational citizenship behavior. Moorman (1991) and Organ (1988) have also found a significant relationship between organizational justice and organizational citizenship behavior. Keeping in account the above discussion, the following hypotheses and model is developed.

3. Hypotheses

H1: There is a significant positive relationship between organizational justice and organizational citizenship behavior.

H2: There is a significant positive relationship between distributive justice and organizational citizenship behavior.

H3: There is a significant positive relationship between procedural justice and organizational citizenship behavior.

4. Theoretical Model

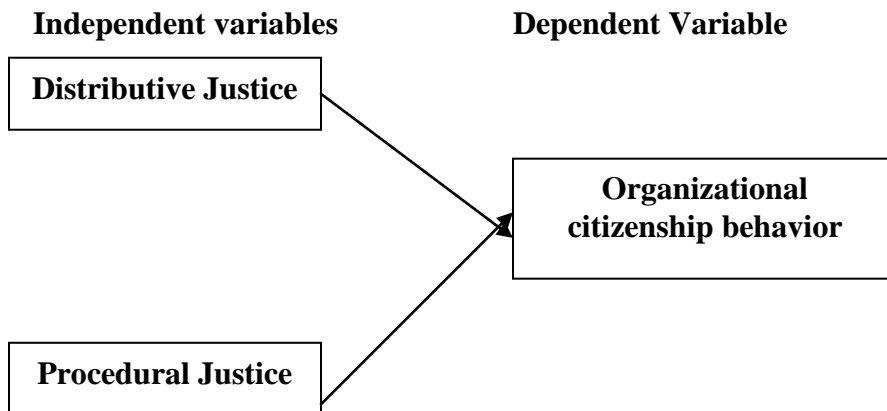


Figure 1: Theoretical Model

5. Methodology

5.1 Measures

Overall OCB: The 21-item scale developed by Moorman and Blakely (1995) was used to measure Organizational Citizenship Behavior (OCB). The interpersonal dimension of OCB contained six items and the remaining three dimensions namely individual initiatives, personal industry, and loyal boosterism contained five items each. Overall organizational citizenship behavior was calculated by taking the average of these four dimensions. Responses were measured on five-point likert scale, from 1 (strongly disagree) to 5 (strongly agree).

5.2 Organizational Justice

Distributive justice and procedural justice were measured by using the 20-item scale developed by Niehoff and Moorman (1993). Distributive justice contained five items and procedural justice 15 items. Overall organizational justice was measured by averaging distributive and procedural justice score. Responses were noted on five point likert scale, from 1 (strongly disagree) to 5 (strongly agree).

5.3 Sample and Collection Procedure

Sample of this study comprises all private sector banks operating in four districts of NWFP, Pakistan. Two hundreds and eighty (280) questionnaires along with a covering letter which explained the purpose of the study were personally administered to private sector bankers of NWFP. One hundred and ninety four (194) questionnaires were returned showing a response rate of 69% and they were coded for research purpose. Data was collected in the first three months of 2010.

5.4 Reliability

All the scale showed a good reliability as shown in the following table

Table 1: Cronback's Alfa

	Cronback's Alfa
Individual initiatives	.73
Personal industry,	.82
Loyal boosterism	.90
Distributive Justice	.77
Procedural Justice	.72

6. Findings

Table 2: Demographics

Demographics		Frequency	Percentage (approx)
Age	20-25	44	24
	26-30	45	23
	31-35	32	16
	35-40	41	21
	Above 40	32	16
Total		194	100
Marital status	Married	119	61
	Single	75	39
Total		194	100
Gender	Male	172	89
	Female	22	11
Total		194	100
Qualification	Graduate	13	7
	Master	179	92
	MS/M.Phil	2	1
Total		194	100

In the present study demographics were not used for measuring their impact on organizational citizenship behavior. The age distribution is shown in table 2. Table 2 also indicates that majority (61%, n=119) of the respondents are married and the remaining 39% of the respondents are unmarried. Majority (89%, n=172) of the respondents are male and the remaining 11 (n=22) percent are female. Majority (92%, n=179) of the respondents have mater degrees.

Table 3-A: Correlation between organizational justice and organizational citizenship behavior

	Mean	N	Std. Deviation	1	2	3	4
1	3.6237	194	1.30668	1			
2	3.7680	194	1.20138	.631*	1		
3	3.7101	194	.98795	.911*	.894*	1	
4		194		.610*	.694*	.720*	1

* Correlation is significant at the 0.01 level (2-tailed).

1= distributive Justice; 2= Procedural Justice; 3= Organizational Justice; 4= Overall Organizational Citizenship Behavior

Table 3-A proves that there is a statistically significant positive relationship between distributive justice and organizational citizenship behavior ($r=0.69$, $p<.01$), procedural justice and organizational citizenship behavior ($r=0.61$, $p<.01$) and overall organizational justice and overall organizational citizenship behavior ($r=0.72$, $p<.01$). H1 which indicates that there is a significant relationship between organizational justice and organizational citizenship behavior is accepted in the light of the results shown in table 3. Similarly H2 and H3 are also accepted.

Table 3-B: Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.729(a)	.531	.526		.68007

a Predictors: (Constant), Procedural Justice, Distributive Justice

The R Square value .531 indicates that 53 percent of the variance in organizational citizenship behavior can be accounted for by distributive justice and procedural justice as shown in table 5 below.

Table 4: ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100.042	2	50.021	108.155	.000(a)
	Residual	88.336	191	.462		
	Total	188.378	193			

a Predictors: (Constant), Procedural Justice, Distributive Justice

b Dependent Variable: Overall OCB

Table 5: Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
	(Constant)	1.334	.169		7.909	.000
	Distributive Justice	.217	.048	.287	4.494	.000
	Procedural Justice	.422	.053	.513	8.034	.000

a Dependent Variable: Overall OCB

7. Model

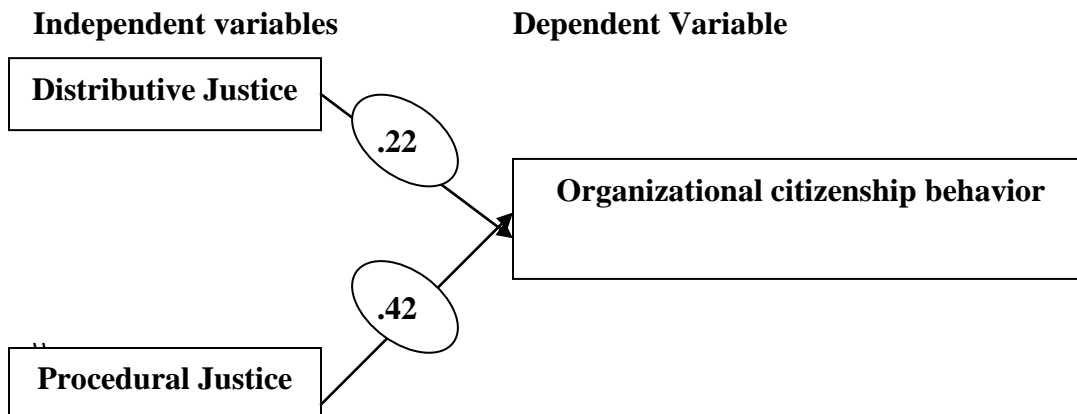


Figure 2: Model and relation among variables

8. Conclusion

The present study was conducted to investigate the relationship between overall organization justices and organizational citizenship behavior of bankers of Pakistan. Two dimensions of organizational justice which are distributive justice and procedural justice were found to have a significant relationship with organizational citizenship behavior. Overall organizational justice was also found to have a significant positive correlation with organizational citizenship behavior. The management of banks of Pakistan should pay their attention to improving the organizational justices within the banks so as to improve organizational citizenship behavior because these two are closely and positively associated with each other.

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Multiple Intelligences, The Necessary Need for Future International Managers

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Abstract

This research is a sole study about the role of Multiple Intelligence, MI and management era, today's managers should be more intelligent than their rivals in this competitive era. a manager who has a good Multiple Intelligences and competitive intelligence can cope with the market an organizational facts well than others who do not have more. so a manager who has a good MI can manage the situation and run the business more successfully than the others. This paper aims to explore the MI notion in details. Also the relationship of MI and management comes as well

Keywords: Multiple Intelligence, Intelligence, Management, International Business

1. Introduction

1.1 Background of Multiple Intelligences

There are different approaches to understanding intelligence. The psychometric view is the most traditional one. According to this approach, there is a single intelligence, which is often called general intelligence. Every individual is born with a certain intelligence or potential intelligence, which is difficult to be changed. Psychologists can assess one's intelligence (IQ) by means of short-answer tests and other purer measures such as the time it takes to react to a flashing light or the presence of a certain pattern of brain waves (Gardner, 2004; Moafian & Pishghadam, 2008). theories suggest that rather than being fixed, unitary, and predetermined, intelligence is modifiable, multi-faceted, and capable of development (Gardner, 1993; Sternberg, 1986; Vygotsky, 1978; Yekovich, 1994; cited in Campbell, 2000, p. 8).

Robert Sternberg in his triarchic view of intelligence proposed three types of intelligence: 1) Componential Intelligence (analytical thinking): academic abilities to compare, evaluate and solve problems. 2) Experiential Intelligence (creativity and insight): the ability to invent, discover and theorize. 3) Practical Intelligence (street smarts): contextual abilities to adapt to the environment (Brown, 2000; Chastain, 1988). This theory of intelligence claims that intelligent behavior stems from a balance between analytical, creative and practical abilities and that these abilities function collectively to allow individuals to achieve success within particular socio-cultural contexts (Sternberg, 1988; (Moafian & Pishghadam, 2008; Richrads & Rodgers, 2001).

According to Gardner (1993), Intelligences cannot be seen or counted. They are used to process information and can be activated in a cultural setting to solve problems or create products that

are of value in a culture. These potentials' activation depends upon the values of a particular culture, the opportunities available in that culture, and the personal decisions made by individuals and/or their families, schoolmasters, and others (Moafian & Pishghadam, 2008).

2. Multiple Intelligences Theory

Gardner's MI theory posits that human beings possess at least eight intelligences, to a greater or lesser extent. They are as follow (Armstrong, 2009, pp.6-7):

Once this broader and more pragmatic perspective was taken, the concept of intelligence began to lose its mystique and became a functional concept that could be seen working in people's lives in a variety of ways. Gardner provided a means of mapping the broad range of abilities that humans possess by grouping their capabilities into the following eight comprehensive categories or "intelligences":

2.1. *Linguistic*

The capacity to use words effectively, whether orally (e.g., as a storyteller, orator, or politician) or in writing (e.g., as a poet, playwright, editor, or journalist). This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sounds of language, the semantics or meanings of language, and the pragmatic dimensions or practical uses of language. Some of these uses include rhetoric (using language to convince others to take a specific course of action), mnemonics (using language to remember information), explanation (using language to inform), and metalanguage (using language to talk about itself).

2.2. *Logical-mathematical*

The capacity to use numbers effectively (e.g., as a mathematician, tax accountant, or statistician) and to reason well (e.g., as a scientist, computer programmer, or logician). This intelligence includes sensitivity to logical patterns and relationships, statements and propositions (if-then, cause-effect), functions, and other related abstractions. The kinds of processes used in the service of logical-mathematical intelligence include categorization, classification, inference, generalization, calculation, and hypothesis testing.

2.3. *Spatial*

The ability to perceive the visual-spatial world accurately (e.g., as a hunter, scout, or guide) and to perform transformations upon those perceptions (e.g., as an interior decorator, architect, artist, or inventor). This intelligence involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, and to orient oneself appropriately in a spatial matrix.

2.4. *Bodily-kinesthetic*

Expertise in using one's whole body to express ideas and feelings (e.g., as an actor, a mime, an athlete, or a dancer) and facility in using one's hands to produce or transform things (e.g., as a

craftsperson, sculptor, mechanic, or surgeon). This intelligence includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed, as well as proprioceptive, tactile, and haptic capacities.

2.5. *Musical*

The capacity to perceive (e.g., as a music aficionado), discriminate (e.g., as a music critic), transform (e.g., as a composer), and express (e.g., as a performer) musical forms. This intelligence includes sensitivity to the rhythm, pitch or melody, and timbre or tone color of a musical piece. One can have a figural or “top-down” understanding of music (global, intuitive), a formal or “bottom-up” understanding (analytic, technical), or both.

2.6. *Interpersonal*

The ability to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people. This can include sensitivity to facial expressions, voice, and gestures; the capacity for discriminating among many different kinds of interpersonal cues; and the ability to respond effectively to those cues in some pragmatic way (e.g., to influence a group of people to follow a certain line of action).

2.7. *Intrapersonal*

Self-knowledge and the ability to act adaptively on the basis of that knowledge. This intelligence includes having an accurate picture of oneself (one’s strengths and limitations); awareness of inner moods, intentions, motivations, temperaments, and desires; and the capacity for self-discipline, self-understanding, and self-esteem.

2.8. *Naturalist*

Expertise in the recognition and classification of the numerous species—the flora and fauna—of an individual’s environment. This also includes sensitivity to other natural phenomena (e.g., cloud formations, mountains, etc.) and, in the case of those growing up in an urban environment, the capacity to discriminate among inanimate objects such as cars, sneakers, and CD covers.

Daniel Golman introduced the concept of Emotional Intelligence (EI). He claimed that efficient mental or cognitive processing is necessary for controlling even a handful of core emotions—anger, fear, enjoyment, love, disgust, and others. More to the point, Golman compared the rational mind with the emotional mind. In comparing the rational mind with the emotional mind, Golman argued that the emotional mind is far quicker and acts without even pausing to consider what it is doing. He stated that the quickness of emotional mind prevents a deliberate, analytic reflection that is the sign of the thinking mind (Golman, 1995).

The theoretical framework of the present study is based on Gardner’s MI theory. This theory has a positive and expansive view towards intelligence (Campbell, 2000).

3. Developing MI

Whether intelligence can develop depends upon three main factors (Armstrong, 2009, p.27):

- i. **Biological endowment**—including hereditary or genetic factors and insults or injuries to the brain before, during, and after birth
- ii. **Personal life history**—including experiences with parents, teachers, peers, friends, and others who awaken intelligences, keep them from developing, or actively repress them
- iii. **Cultural and historical background**—including the time and place in which you were born and raised and the nature and state of cultural or historical developments in different domains we can see the interaction of these factors in the life of Wolfgang Amadeus Mozart.

Table 1: MI Strategies for Managing Individual Behaviors

Intelligence	Aggressive Student	Withdrawn Student	Hyperactive Student
<i>Linguistic</i>	Bibliotherapy on theme of anger management	Taking up debate, oratory, or storytelling	Books on theme of hyperactivity (e.g., <i>The Boy Who Burned Too Brightly</i>)
<i>Logical-Mathematical</i>	Dreikurs's logical-consequences system	Interactive computer network, chess club	Quantification of time on task
<i>Spatial</i>	Visualizing ways of managing conflict	Movies on theme of withdrawn child who meets a friend	Video games that help develop focus and control (neurofeedback)
<i>Bodily-Kinesthetic</i>	Role-play aggressive behavior and try out alternatives	Pairing with trusted person for walks, sports, games	Progressive relaxation, yoga, hands-on learning, strenuous exercise
<i>Musical</i>	Songs promoting social skills	Discography encouraging connection with others	Stimulating music ("Musical Ritalin")
<i>Interpersonal</i>	Taking group class in martial arts	Group counseling	Leadership role in cooperative learning group
<i>Intrapersonal</i>	Time out, contracting	One-to-one counseling/psychotherapy	Focusing exercises
<i>Naturalist</i>	Identifying with an animal that can then learn how to "tame itself"	Introspective book about nature involving friendship (e.g., <i>The Secret Garden</i>)	Time in nature

Armstrong, 2009, pp.117-118

4. The benefits of Multiple Intelligences in the organization

Managers who have a good multiple intelligences can understand the challenges face with employees. Some challenges are shown below (Cherniss, 2001):

- People need to be more motivated and committed.
- People need to work together better.
- The organization needs to make better use of the special talents available in a diverse workforce.
- The organization needs to identify potential leaders in its ranks and prepare them to move up.
- The organization needs to identify and recruit top talent.
- The organization needs to make good decisions about new markets, products, and strategic alliances.
- The organization needs to prepare people for overseas assignments.

5. Conclusions

A manager with high in MI is the "executive" of organizational intelligence. These managers must establish and encourage norms, roles, and rules for efficient application to known tasks, but must also be sensitive and responsive to change by employing sensitivity, problem solving and decision making strategies that allow for adaptation (Noruzi & Rahimi, 2010; Sariolghalam et al, 2010).

Also managers should note that they should use their intelligences to find the effective organization model to manage the circumstances and also remember that the organizational effectiveness in modern organizations is much more different with the past organizations and the modern organizations are in turbulent time and all the time the organizational goals may change. The downside of this fortunate circumstance for many organizations is that it has become increasingly more difficult to retain good employees, particularly those with the skills that are important in the high-tech economy. So what aspects of an organization are most important for keeping good employees (Cherniss, 2001; Noruzi & Rahimi, 2010; Sariolghalam et al, 2010)?

Highly conscientious managers who lack social and emotional intelligence perform more poorly than those high in both conscientiousness and emotional intelligence.

- The highest performing managers and leaders have significantly more "multiple intelligences competencies" than other managers.
- Poor social and multiple intelligences are strong predictors of executive and management "derailment" and failure in a person's career (Noruzi & Rahimi, 2010; Sariolghalam et al, 2010).

Also CEOs for leveraging their managers should:

- Distinguish between cognitive learning and multiple intelligences based learning strategies

- Learn to build the “business case” for MI & evaluate the effectiveness of MI learning strategies (Noruzi & Rahimi, 2010; Sariolghalam et al, 2010).

Also managers should do the following practical guides for their staff to enhance MI competencies: Strategic learning framework for developing emotional competence in organizations

- Application: Connections between emotional competence, customer loyalty and competitive advantage
- The Measurement and Assessment of MI
- Evaluating the Effectiveness of MI interventions
- Application: MI, Diversity and Cultural Competence
- Application: MI and Leadership Development (i.e., integrating MI competencies in various leadership development interventions and processes such as succession planning ;Noruzi & Rahimi, 2010; Sariolghalam et al, 2010)

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**FOREIGN DIRECT INVESTMENT AND THE CAPITAL
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SCHOOL OF MANAGEMENT TECHNOLOGY, FEDERAL; UNIVERSITY OF TECHNOLOGY
P.M.B 1526 OWERRI IMO STATE NIGERIA**Abstract**

Drawing from both integrated and financial behaviour models, the paper examines the impact of foreign direct investment on the Nigerian Capital Market. While acknowledging the notion that the impact of foreign direct investment is a double – edged sword – either exerting positive or negative tendencies on macroeconomic variables, the paper concludes that foreign direct investment exerts a significant influence on the Nigerian capital market, especially with the results of four out of the seven activity sectors but cautions that adequate policy measures should be in place to address urgently the insignificant nature of other sources like the manufacturing and processing. The paper therefore, calls for a closer look at the capital market/FDI relationship. On this premise, the study suggests more transparency in our laws especially as they relate to property rights, copyright protection, more commitment to enforcement of contracts, patent rights etc, as ways to improve this relationship.

Keywords: Foreign Direct Investment, Capital Market, Integrated Model, Economic Development.

1.Introduction

Foreign direction investment (FDI) has recently become one of the best ways countries, especially the developing economies raise the much-needed development funds. Beside the cross-boarder capital inflow necessary to augment domestic savings, FDI is known to have encouraged technology transfer, improve inter-country accessibility to external markets while fostering global integration.

Akujuobi (2007) has observed that the current drive for greater global integration, no doubt, seems to have fuelled the link between international capital markets. Therefore, countries, especially the less developed economies, are now at the forefront of trying to attract more capital flows in their economies. As such, foreign direct investment has continued to draw the attention of nations in their quest for the much-needed cross-border capital flows. The IMF (1992) has described foreign direct investment as a category of international investment that reflects the objectives of a resident in one economy, who is the direct investor that obtains a lasting interest in an enterprise in another economy, which is regarded as the direct investment enterprise. Invariably, a long-time relationship develops between the direct investor and the direct investment enterprise, such that the investor now exhibits a significant degree of influence on the

management of the enterprise. Hence, the IMF (1992) concludes thus “a direct investment relationship is established when the direct investor has acquired 10 percent or more of the ordinary shares or voting power of an enterprise abroad”.

Accordingly, the World Bank (2002) posits that foreign direct investment represents the primary supply of long-term investment available to developing economies, especially because of its obvious advantages over portfolio investment. For instance, foreign direct investment is more stable than portfolio investment given the fact that it is harder to withdraw. Besides, it equally encourages importation of technology to the extent that it helps countries to make the transition to export-oriented economies by being manufacturing platforms. The expectation is that foreign direct investment should impact positively on the capital market, especially for an economy that seems to attract its “fair share” of foreign direct investment. Surprisingly, the capital market in Nigeria is still at its lowest ebb of development, with low liquidity, low capitalization, high volatility of returns, high concentration and thin breadth etc being its major attributes (Mullin, 1993; Feldman and Kumar, 1995 and Akujuobi and Nwezeaku, 2007). This situation seems to have been further amplified by Anao (1997) when he noted that “any economy that suffers from this virus of under-development, its financial system and by extension the capital market suffers similar under-development”. It is in fact, instructive to note that in spite of the acclaimed advantages, there has been however, a raging controversy on whether foreign direct investment actually favours the developing economies or not. What then is the Nigerian experience given the level of her capital development? This study therefore seeks to determine the impact of foreign direct investment on the Nigerian capital market. Specific objectives are: first, to ascertain the nature of relationship between foreign direct investment and the Nigerian capital market; second, to determine the extent foreign direct investment has influenced the Nigerian capital market; third, to point out the constraints to foreign direct investment inflow to the Nigerian economy and finally, offer some policy recommendations on how to effectively harness the positive sides of foreign direct investment in order to achieve the desired level of economic development. Both at the local and foreign levels, there is an established evidence of dearth of empirical studies in the area of foreign direct investment – capital market relationship. In fact, most of these past studies centre on other areas (Sarbel and Marx, 1987; UNCTAD, 1992; Aiken et al 1997; Schoeman et al, 2000; Hanson, 2001; Asiedu, 2002; Apodaca, 2002; OECD, 2003; Banga 2003). Therefore, the present study is indeed very significant being an attempt to fill this gap. Besides, the study presents an empirical basis for sound policy formulation just as it breaks new frontiers for further researches.

2. Review of Literature

Studies concerning the relationship between foreign direct investment and economic development abound. (1998; OECD, 1998; Nunnenkamp, 2002; UNCTAD, 2003). While some argue that foreign direct investment does more harm than good, others contend that foreign direct investment is a necessary ingredient for economic development, especially as it affects developing economies (Resnick 2003). In this battle are two strands of thought – the classics or dependency, world system theory and the modernization theory. While the former argues that foreign direct investment creates the avenue for the citizens of developing countries to be exploited by multinational capital that channels resources to wealthy countries, thus yielding an international political economy where resources flow disproportionately from poor to rich, the latter holds that the benefits of international capital in the simultaneous economic and political

development of the less developed world, can hardly be over-emphasized. Some of these works include those of Max. Lenin Wallerstein (1974), Chase-Dunn (1989). Cardoso and Faletto (1979) and Evans (1979) which provide the theoretical foundation leading up to the later empirical work testing hypotheses on foreign direct investments negative effects in developing economies.

For the modernization theory, there are the works of Rostow, (1960) and Rustow (1967) that see multi-national corporations as a conduit for diffusion of the gains of foreign direct investment, for the developed to the developing economies. Other studies equally follow this line of either supporting or denying one school of thought or the other as to the effect of foreign direct investment on developing economies, (Bomchier and Balmer) – Cao, 1979; Bornchier, Chase-Dunn and Rubinsion, 1778; Dolan and Towlin 1980; Jackman, 1982). The results of these schools of thought seem to have been laid to rest by the report of the Organization for Economic Co-operation and Development, OECD (2002a, 2002b) when it concluded thus; “FDI serves as a catalyst to development but challenges primarily address host countries, which need to establish a transparent, broad and effective enabling policy environment for investment and to build the human institutional capacities to implement them”.

3. Empirical Analysis of the impact of FDI on Capital market in Nigeria Data Presentation

Data came from two main sources: the Nigerian capital market and Central Bank of Nigeria publications, covering the period 1982-2008. Here, the actual total market capitalization figures are regressed on various sources of foreign direct investment for the corresponding period.

The F-test was used to test the overall significance of the explanatory variables taken together, while the student t-test was used to test for the significance of each explanatory variable contributing to the capital market in Nigeria. The coefficient of multiple determinations (R^2) was used to test goodness of fit of the study.

3.1 Model Specification

Specifically we have;

TOMAC_t = Level of Total capital market capitalization year t

MIQ_t = Level of foreign direct investment to the Mining and Quarrying sector in year t.

MAP_t = Level of Foreign direct investment to the Manufacturing and Processing sector in year t.

AFF_t = Level of Foreign direct investment to Agriculture, Forestry and Fisheries sector in year t

TAC_t =Level of Foreign direct investment to transport and communication sector in year t.

BAC_t =Level of Foreign direct investment to Building and Construction sector in year t.

TABS_t =Level of Foreign direct investment to Trading and Business Services sector in year t.

MISCS_t =Level of Foreign direct investment to Miscellaneous sector.

Thus, the functional form is given as:

$$TOMAC_t = f(MIQ_t, MAP_t, AFF_t, TAC_t, BAC_t, TABS_t, MISCS_t) \dots\dots 1$$

3.2 Mathematical Form of the Model

Mathematically, we have the regression equation as;

$$TOMAC_t = \beta_0 + \beta_2MAP_t + \beta_3AFF_t + \beta_4TAC_t + \beta_5BAC_t + \beta_6TABS_t + \beta_7MISCS_t + U_t \dots\dots\dots 1$$

Rearranging equation 1.1 above, we have:

$$U_t = TOMAC_t - \beta_0 + \beta_2MAP_t + \beta_3AFF_t + \beta_4TAC_t + \beta_5BAC_t + \beta_6TABS_t + \beta_7MISCS_t) \dots\dots\dots 2$$

$$U_t^2 = TOMAC_t - \beta_0 + \beta_2MAP_t + \beta_3AFF_t + \beta_4TAC_t + \beta_5BAC_t + \beta_6TABS_t + \beta_7MISCS_t) \dots\dots\dots 3$$

Summing both sides of equation 1.3 we have;'

$$\sum_{J=1}^n U_t^2 = \sum_{t=1}^n (TOMAC_t - \beta_0 + \beta_1MIQ_t + \dots\dots + \beta_7MISCS_t)^2 \dots\dots\dots 4$$

In the regression, $\sum_{t=1}^n U_t^2$, (estimate of the population disturbance) is given by

$$\sum_{T=1}^n e^2, \text{ otherwise called the RESIDUAL}$$

3.3 SUM OF SQUARES (RSS)

$$\sum_{J=1}^n (TOMAC_t - \hat{TOMAC}_t)^2, \text{ that is the sum of squares of the deviation of the}$$

actual total market capitalization variables from their mean, while the explained sum of squares (ESS) is gotten with the formula, $ESS = R^2 \times (TSS)$.

Where;

$$R^2 = \text{the coefficient of determination from the regression}$$

$$RSS = TSS - ESS \text{ (Kontsoyanais, 1986; Gujarati, 1985)}$$

HO₁: $\rho^2 = 0$ (i.e., the regressors, levels of sectoral FDI, in a given year have no significant relationship with the Actual dependent variable (TOMAC_t) for the year).

HA₁ $\rho > 0$ (i.e. at least there is a significant relationship between one of the independent variables and Actual dependent variable, TOMAC_t)

Table 2 shows the result of the multiple regression analysis, establishing the degree of influence of the FDI sources, collectively and individually, on the total market capitalization, in the period, 1981-2008.

3.4 Analysis Of Variance (ANOVA)

From the F-tables, we read the following; F-tabulated (7,20), %=3.70; 5%=2.51 while the F-ratio calculated is 209.735

3.5 Decision Rule

Since F-ratio, calculated > F-ratio, tabulated, we therefore, reject the Null hypothesis and conclude that the estimated model, significantly explains the variation in the respective periods under investigation, 1981-2008, with the resulting estimated regression equation represented thus;

$$TOMAC_t = -960.807 - 0.032MIQ_t + 0.005MAP_t + 2.559AFF_t + 0.231TAC_t + 0.281TABS_t - 0.040MISCS_t \dots\dots 1.5$$

However, the order of importance is displayed thus;

$$AFF_t > TABS_t > MISCS_t > MIQ_t > BAC_t > TAC_t > MAP_t$$

[8.965] [4.124] [2.586] [2.421] [1.664] [0.695] [0.431]

Also, from the results of the hypotheses in Table 2, it is striking to note that foreign direct investment contributes significantly to the capital market. Added to this, the model shows about 99% level of relationship between the explanatory variables taken together and the capital market (see the ANOVA Table 2). Also, with an R² of about 98% it then follows that the explanatory variables have been able to explain at least 98% of the variations in the capital market, thus leaving only about 2% to chance occurrence. However, in terms of the contributions of the individual explanatory variables to the capital market, four of the FDI explanatory variables (agriculture and forestry, trading and business services, miscellaneous and mining and quarrying), all proved to be significant contributors to the Nigerian capital market. Similarly, four of the explanatory variables (agriculture and forestry, trading and business services, transport and communication and manufacturing and processing) equally bear positive coefficients. Thus, meaning that they contribute positively to the level of capital market development in Nigeria. The sectoral FDI to the miscellaneous, mining and quarrying, and building and construction, all contribute negatively to the Nigerian capital market.

4. Conclusion

The major findings therefore include the following

- i. Foreign direct investment is actually a desirable phenomenon, especially with its positive effect on the economy in general.
- ii. Foreign direct investment exerts both positive and negative effect on the capital market in Nigeria.
- iii. Foreign direct investment through the agriculture, forestry and fishery, trading and Business Services, miscellaneous and, the mining and quarrying Sectors, contribute significantly to capital market development.
- iv. With the insignificant nature of the contribution of FDI from the manufacturing and processing sector, it suffices to say therefore, that the Nigerian industrial sector is yet to feel the desired impact of the cross-boarder capital flow.

5. Recommendations

The findings of the study therefore bring to the fore the need for the following recommendations;

- i. In order to feel the full positive effect of foreign direct investment on the economy, efforts should be directed towards the removal of impediments in the economy. By this, we mean that a conducive environment should be created to attract and sustain more foreign direct investment into the economy.
- ii. Closely linked to this is the need to improve the country's level of infrastructural development. This is given the fact that solid infrastructural development stimulates private investment especially as it permits cost reduction and thus attracting more investment into the economy.
- iii. Also, there is the need to improve on the level of security in the country. Obviously, lack of security as we witness in recent times in the Niger Delta, has continued to discourage new entrants while forcing existing investors to even close shop.
- iv. There is that need for the government to reduce the extent of bureaucratic inefficiency prevalent in the economy. Hence urgent needs should be directed towards improving the quality of government services. This has the tendency to avoid policy summersault with the ultimate gain that investors can now make predictions about the quality of government services such that unnecessary risks are avoided ore preparations made to cushion their effects.
- v. More investment and investors should be encouraged through the strengthening of the country's transparency in property rights, copyright protection, more commitment to enforcement of contracts, patent rights etc. Once an investor is sure of adequate returns, he is further encouraged to undertake new investment.

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Annexure

	YEAR	MIQ _t	MAP _t	AFF _t	TAC _t	BAC _t	TABS _t	MISCS _t	TOMAC _t
1.	1981	526.00	1705.70	120.50	60.80	325.90	767.20	251.80	5.00
2.	1982	974.00	1922.50	120.50	68.90	422.50	1483.60	390.80	5.00
3.	1983	511.20	2128.10	127.80	77.30	443.90	2274.90	386.30	5.70
4.	1984	702.80	2109.30	128.50	80.60	439.00	2622.50	335.60	5.50
5.	1985	744.00	2278.10	126.00	85.90	453.20	2697.90	418.90	6.60
6.	1986	2510.40	2810.20	128.20	80.40	501.60	2753.00	529.60	6.80
7.	1987	2260.20	3122.30	117.30	75.60	462.60	3396.50	55.1	8.20
8.	1988	3403.00	3637.00	128.90	160.60	492.70	3133.70	383.30	10.00
9.	1989	636.70	5406.40	134.80	158.20	481.80	3497.20	584.70	12.80
10.	1990	1091.60	6339.00	334.70	240.50	743.60	1710.40	-23.70	16.30
11.	1991	-810.00	8692.40	382.80	373.20	1471.60	142.20	682.00	23.10
12.	1992	6417.20	9746.30	386.40	391.50	1406.60	1482.50	682.20	31.20
13.	1993	27686.90	12885.10	1214.90	426.40	71.20	1864.50	22638.00	47.50
14.	1994	26680.00	14059.90	1208.50	429.60	1707.00	2247.60	24381.10	66.30
15.	1995	56747.30	27668.80	1209.00	374.80	1553.00	2290.70	28848.00	180.40
16.	1996	56792.30	29814.30	1209.00	485.60	1864.30	3668.70	28766.70	285.80
17.	1997	59221.40	31297.20	1209.00	672.60	1259.80	3625.70	31046.20	281.90
18.	1998	59970.50	34503.90	1209.00	689.20	3888.30	10460.50	41689.5	262.60
19.	1999	58855.40	36282.10	1209.00	820.30	3995.90	10927.30	42100.40	300.00
20.	2000	60710.90	3733.60	1209.00	820.30	3995.90	11201.30	42237.6	472.30
21.	2001	61611.90	37779.60	1209.00	955.30	4211.90	12016.30	43657.60	662.50
22.	2002	61611.90	39953.60	1209.00	1736.30	4293.10	12317.30	45509.60	764.90
23.	2003	61809.10	45719.40	1209.00	2890.50	4545.80	14457.30	49056.50	1359.30
24.	2004	62145.70	102995.80	1209.00	4281.10	5194.10	20242.40	53571.20	2112.50
25.	2005	80789.40	133894.50	1209.00	5565.40	6713.30	25315.10	102780.00	2900.10
26.	2006	105668.40	212729.40	1209.00	8291.00	10461.10	41309.30	102780.00	5121.00
27.	2007	110539.10	226667.30	3211.00	10302.10	12678.40	52400.10	114800.00	13294.60
28.	2008	118276.80	242534.00	3435.80	11023.10	13565.90	56068.10	122836.00	13917.20

Source: CBN Statistical Bulletin, various years.

Table 1: Nigeria Foreign Direct Investment in Millions of Naira, 1981-2008

Independent variable	X ₁ Mining and Quarrying MIQ _t	X ₂ Manufacturing and Processing MAP _t	X ₃ Agriculture, Forestry and fishery AFF _t	X ₄ Transport and communication TAC _t	X ₅ Building and Construction BAC _t	X ₆ Trading And Business Services TABS _t	X ₇ Miscellaneous MISCS _t
Coefficient of the variables	-0.032	0.005	2.559	0.231	-0.350	0.281	-0.040
Standard error	0.013	0.011	0.285	0.333	0.210	0.068	0.015
T-statistic calculated	-2.421*	0.431	8.965***	0.695	-1.664	4.124***	-2.586**
T-statistic Tabulated 1%	2.831	2.831	2.831	2.831	2.831	2.831	2.831
T-statistic Tabulated 5%	2.080	2.080	2.080	2.080	2.080	2.080	2.080
Pearson Correlation	0.720	0.916	0.846	0.942	0.906	0.942	0.820

Constant = -960.807
 Correlation (R) = 0.993
 Coefficient determination (R²) = 0.987
 No of observations = 28
 Degree of freedom = (7,20)

Hypotheses Testing and Discussion of Results

Table 2: Regression Output of Total market capitalization and FDI sources of inflow into Nigeria.

Financing the Current Assets: Approach Followed by Small and Medium Enterprises in Pakistan

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Abstract

Working Capital Management is one of the most severe problems faced by business organizations, more specifically small and medium size manufacturing enterprises (SMEs). The main objective of the paper is to determine the type of approach followed by small and medium size industrial companies in Pakistan for financing their current assets. Based on the analysis of financial data, it is concluded that Conservative Approach (financing current assets through long term liabilities) is being followed by small and medium size industrial companies in Pakistan for financing the current assets.

Keywords: Financing, Current Assets, Approach, Small and Medium Enterprises

1. Introduction

Working Capital Management refers to maintenance of a balance in the volume of current assets and current liabilities so as to keep the cost of these assets at minimum acceptable level. Keeping in view the very nature of the current assets (which change frequently), efficient and accurate managerial decisions regarding maintenance of inventory, cash in hand, arrangement of funds etc., is required. The management of any business spends reasonable time on the management of working capital. An important aspect in managing the working capital is that current liabilities must be growing with the growth in current assets at the same pace and a margin of safety must be maintained i.e. period of current liabilities should be more than current assets.

Majority of the Small and Medium Enterprises (SMEs) are not able to get long term loans because of their inherent risks including their vulnerability to economic or business cycles. Such types of enterprises are also risky for investment due to their size and financial standing and hence face problems while borrowing funds for short term period. Furthermore, various types of

fund and non fund based financing facilities are available to SMEs, in the shape of short term loans such as running finance, demand finance, export refinance, finance against imported merchandise, finance against trust receipt, letter of credit and letter of guarantee etc., their terms and conditions are subject to frequent changes. One example is linkage of mark up rates with Karachi Inter bank Offered Rate (KIBOR) thus these are kept floating with the changes in KIBOR and thus an uncertain situation is being confronted by SMEs.

Moreover, keeping in view the increasing prices in Pakistan, all types of credit facilities are becoming expensive and thus SMEs' profitability reduces. Definitely, it will lead towards affecting their short term repayment capability.

In order to eliminate the chances of becoming insolvent because of the above mentioned reasons, they are forced to rely on equity for financing the same so that they may conveniently run their operations without any pressure with regard to repayment of short term loans.

That is why; they are being forced to use equity capital to finance their investment in the working capital. Further, lack of adequate collateral is another reason for non-availability of both short and long term funds to SMEs because of their nature and operations. SMEs do not have the required expertise for running the business due to a very little exposure.

The study is important in many aspects. For example it is apparent from the study that the capital structure is dominantly constituted by equity with some firms even having no long term liabilities. Still lenders do not weigh this favorable capital structure for granting both long and short term loans.

Since working capital is the life blood for any commercial organization whether manufacturing or trading, a proper and efficient system must be formulated for managing the same. The firms must ensure accelerating collections, utilization of available funds in an effective manner and proper control on disbursements as well as monitoring of cash control process. Maintaining adequate inventory must be ensured every time to meet the requirements of customers as and when they demand. For this purpose, firms must use modern techniques like Economic Order Quantity and Just in Time models. The firms must take steps for keeping receivables at a reasonable level.

It must be determined, which type of approach is being used by small and medium enterprises to finance their current assets. Determining such type of approach will not only help the small SMEs to keep a proper balance among various components of working capital but will also guide the lending institutions while advancing loans to them

2. Literature Review

There should be a proper coordination among all the components of working capital whether current assets or current liabilities. To perform this job, it is the responsibility of the management to hire professional people in the field of accounting and finance. This will facilitate accurate record of all the business transactions as well as effective utilization of the short term resources available to a firm. Further the adjustment of the tenures between current assets and current liabilities will be achieved which is one of the core objectives with regard to working capital management.

The cash conversion cycle analysis provides more explicit insights for managing a firm's working capital position in a manner that will assure the proper amount and timing of funds available to meet a firm's liquidity needs. (Verlyn et al 1980). It also suggested that the responsibility of the accountant does not end with the determination of enterprises profit but to indicate to management the disposition of free capital to current and non current activities of a business. (Park 1951).

An international study of management perceptions of the working capital process indicated that the most important short-run objective of managers from four countries was to support sales with cash, receivables, inventories, and short-term credit. The study also suggests that the short-run objectives do not correspond with long range goals-a finding which provides an interesting contrast between theory and practice. However the management practices within each country vary substantially as do the factor and product markets in which each operates were different (Gentry et al 1979). Brian and Smith (1991) study changes in working capital management practices using data of 500 firms in 1988 for a longitudinal comparison with 1978. The questions asked from the chief financial officers covered almost all the areas of working capital management. The results of the study provide a comprehensive picture of working capital management practices and trends. It shows that responsibility for setting working capital policy has become more dispersed in these firms and suggests a pattern of increasing formality and sophistication of working capital management practice.

3. Objective of the research

The general objective of this research is to determine the type of approach followed by small and medium size industrial companies in Pakistan for financing their current assets. Specific objective is to review the approaches used to:

- a) Finance the current assets,
- b) Assess the relevance of these approaches to smes in pakistan,
- c) Analyze the causes of using a specific approach by SMEs in Pakistan and
- d) Suggest measures for improvement in working capital management practices in SME sector in Pakistan.

4. Approaches used to finance current assets

Like other corporate companies, small and medium enterprises in Pakistan are using different approaches for financing their current assets. Few are very aggressive and do not care for payment of current liabilities when become due rather finance a portion of their fixed assets through current sources of funds. Others are very conservative and do not take risk of investing current sources of funds into permanent assets. An ideal situation, too difficult to attain, is financing current assets through current liabilities. The three main approaches used for financing current assets are:

5. Hedging Approach (Maturity Matching)

Under this approach the assets are managed/financed in such a way that their maturity life remains by and large the same as of liabilities/financial instruments. * This approach minimizes the risk of inability to pay off maturing obligations. Brigham and Houston (2003) stated that in order to be on the safe side, the maturity period of credit facilities may be a few days more than the maturity period of current assets. ** If accruals are of 2 months, it may be against advance rent (prepayments) of 3 months. In this case, there is a zero margin of safety because the maturity of assets (being financed) is equal to the maturity of debt (acquired for financing the assets).

*For example, inventory can be increased by availing a short term credit facility from a bank. Accounts receivable for 30 days may be financed through a credit facility from the suppliers in the shape of accounts payable for 45 days.

** Such as if a company allows a credit of 45 days to its customers, it must get a credit period of at least 60 days from its suppliers i.e. if account receivable is of 45 days, account payable must be of 60 days.

6. Conservative and Aggressive Approaches

In this situation, the firms adopt a policy of trade off between risk and profitability. Van Horne and Wachowicz argued that short term loan is less costly than long term loan. Whereas a short term loan is more risky than long term loan. If a short term facility is used for financing fixed assets such as plant and machinery, there exists refinancing risk. The lenders will not roll over the facility for another period because they foresee the incapability of the borrower regarding repayment of the said loan. The firms finance a portion of short term assets through long term loans- and there is a positive margin of safety because the maturity of short term assets is far earlier than the maturity of long term debt. The firms finance part of permanent current assets through short term loans. In case of aggressive financing, there is a negative margin of safety because short term loans mature earlier than the permanent current assets (financed through short term loans).

7. Methodology

The main sources of data are audited and un-audited accounts of various SMEs. In addition, banks’ executives and academicians have also been interviewed for getting the required information. The main purpose of data analysis is to determine the type of approach being followed by small and medium size manufacturing companies in Pakistan for financing their current assets. Financial data of 15 units for three years (2002-2004) was obtained and various ratios were calculated and analyzed such as current ratio, inventory turnover, receivables turnover, debtors’ collection period, accounts payable turnover and creditors’ payment period.

Since it is not possible to maintain a current ratio of exactly 1:1 (hedging approach) especially in Pakistan, a range has been allowed for classification of approaches as given in table 1.

Table 1: Classification Range

Approach	Current Ratio	Deviation*
Aggressive	Less than 1.15:1	More than 40 percent
Hedging	1.15:1 to 1.4:1	20 to 40 percent
Conservative	More than 1.4:1	Less than 20 percent

* Difference in percentage of collection and payment periods.

The deviation is calculated as:

$$\text{(Collection period – Payment period)/Collection period (Percent)}$$

All enterprises having a current ratio between 1.15:1 and deviation of more than 40 percent are categorized as following aggressive approach. The enterprises having a current ratio between 1.15:1 to 1.14:1 and deviation of 20 to 40 percent are categorized as following hedging approach. All the enterprises having a current ratio of more than 1.4:1 and deviation of less than 20 percent are categorized as following conservative approach.

8. Analysis and Results

Based on the methodology discussed earlier and using the above assumptions, a distribution of companies has been worked out as given in Table 2.

Table 2: Distribution of Companies

Approach	Current Ratio			Deviation		
	2004	2003	2002	2004	2003	2002
Aggressive	4	7	8	6	5	5
Hedging	2	2	1	2	1	3
Conservative	9	6	6	7	9	7
	15	15	15	15	15	15

Table 2 shows that in the year 2004 (based on current ratio), Out of 15 units analyzed, 9 companies have followed conservative approach, 4 companies have used aggressive approach and 2 companies have followed hedging approach. In the same year, based on deviation, 7 companies have followed conservative approach, 6 have used aggressive approach and 2 have followed hedging approach.

In the year 2003, based on current ratio, 6 companies have followed conservative approach, 7 companies have used aggressive approach and 2 companies have followed hedging approach. In the same year, based on deviation, 9 companies have followed conservative approach, 5 have used aggressive approach and 1 company has followed hedging approach.

In the year 2002, based on current ratio, 6 companies have followed conservative approach, 8 companies have used aggressive approach and 1 company has followed hedging approach. In the same year, based on deviation, 7 companies have followed conservative approach, 5 have used aggressive approach and 3 companies have followed hedging approach.

After merging current ratio and deviation, a ranking of companies is given in Table 3.

Table 3: Ranking of Companies

Approach	2004			2003			2002		
	Current Ratio (1)	Deviation (2)	Average of 1&2	Current Ratio (1)	Deviation (2)	Average of 1&2	Current Ratio (1)	Deviation (2)	Average of 1&2
Aggressive	4	6	5	7	5	6	7	5	6
Hedging	2	1	2 (approx.)	2	0	1	1	3	1
Conservative	9	7	8	5	9	7	6	7	7

Table 3 indicates that as a whole, conservative approach is being followed by small and medium sized enterprises in Pakistan. Due to their small size and limited financial means, SMEs cannot afford to get credit facilities for a short period than the period credit facilities extended to their customers.

The results show that SMEs are using conservative approach for financing their current assets. It has been further proved through the analysis of fixed assets data. An interesting feature of the assets structure is that fixed assets have either remained constant or reduced (fixed assets of 10 firms out of 15 remained constant, 2 reduced and 3 increased but nominally). Further, current liabilities are already short of current assets. It provides an evidence that suggests that fixed assets have not been financed through short term funding.

The non-availability of cheaper short term credit because of the inherent risks of SMEs, forces these small firms to use equity capital to finance their investment in the working capital. The data of the sample reveals majority of the SMEs are not able to get long term loans and most of them have zero long term liabilities over a period of time. Lenders perceive SMEs as very risky enterprises to lend to, due to their vulnerability to economic or business cycles.

Lack of adequate collateral is another reason for non-availability of both short and long term funds. The nature and operations of SMEs result in such assets which are not only inadequate to be placed as collateral but also their loan quality is low. The result is that lenders avoid lending SMEs in short term generally and in long term specifically. Frontier Match Industries in the sample under review is availing a long term loan of only Rs.1 million despite its total assets of Rs.91 million (out of which fixed assets are Rs.43.706 million). Similarly Jehan Packages (Pvt) Ltd. are availing nothing by way of long term debt.

SMEs often lack management skills required to run the business as most of the entrepreneurs have very little exposure to the business world or are new entrants. Lenders do not want to take chance with them even if they have good collateral. Lending may look possible in the presence of such good quality collateral, however, actual practices have found that it takes sometime to get money back when someone defaults on payment because of legal complications. Asad Engineering (Pvt) Ltd. one of the companies selected for sample were allowed a working capital facility by The Bank of Khyber and the later faced a lot of problems in recovery of the funds.

As there is no or little, if any, long term borrowing available to the business, the entrepreneur is forced to finance majority of the working capital needs through introducing additional equity or by retaining earnings.

An important finding of the study is that in the SME sector, lenders do not give weight to the capital structure of the company. After analysis of the data for each sample unit it has been observed that the Capital structure is dominantly constituted by equity with some firms even having no long term liabilities. Still lenders do not weigh this favorable capital structure for granting both long and short term loans.

It can be concluded that SMEs are using conservative approach not by choice but because they have no option or there is lack of options for using any other approach. In other words due to their small asset base and vulnerable profitability features, they are compelled to use conservative approach for financing their current assets.

9. Findings

The result shows that the main reasons why SMEs are financing their current assets through equity and not through short term borrowing are given as under:

- i. The size and financial standing of the SMEs do not permit them to borrow funds for short term period due to their low productivity and profitability and uncertainty in their operations due to lack of financial soundness. As such they rely on equity for financing the same so that they may conveniently run their operations without any pressure with regard to repayment of short term loans. Use of equity eliminates chances of becoming insolvent as no credit has to be repaid regularly.
- ii. A number of short term borrowing facilities are available to SMEs, in the shape of fund (running finance, demand finance, export refinance, finance against imported merchandise and finance against trust receipt etc.) and non fund based (letter of credit and letter of guarantee etc.) facilities. However, their terms and conditions are subject to frequent changes. For example, mark up rates on these facilities are linked with one month, three months or six months KIBOR (Karachi Inter bank Offered Rate) thus these are kept floating with the changes in KIBOR. Due to this uncertainty in mark up rates specially in Pakistan (where economic conditions are too volatile), SMEs mostly rely on equity or to a minor extent on long term credit facilities in which case contracts are signed for a significant long term period say 3 to 10 years.
- iii. Keeping in view the inflationary pressure in Pakistan, cost of all types of credit facilities is going up and up which badly affect the profitability of SMEs. This resultantly reduces the capability of these firms to repay loans in a short period of time. That is why they go for financing through equity or long term loans.
- iv. The volume of profitability and the volume of cash flows of SMEs are vulnerable and highly correlated with the economic cycle. It makes the repayment of both short and long term debt uncertain. It pressurizes both the lender and the borrower. The lender fears that it will not receive the scheduled payment(s) while borrower fears that using debt will increase the risk of insolvency in case it is not able to generate cash flows and profits.
- v. Most of the SMEs do not have the capability to hire professional people for keeping a proper and systematic record of their business transactions and to carry out a cost-benefit analysis with regard to long term debt, short term borrowing and equity. Therefore they are running their business cycles randomly (or more appropriately in nonprofessional way). Generally speaking, debt is cheaper than the equity and can contribute more to profitability but still they do not go for availing loans. In most of the cases, short term loans are less expensive as compared to long term loans, but they go for long term loans. All this is due to lack of knowledge and non-professionalism.

- vi. SMEs do not have much credibility to launch bonds for long term period and are not capable to repay short term loans on time (due to non generation of sufficient funds in a short period), they prefer to go for financing through equity or availing long term credit facilities in the shape of directors' loans and long term bank borrowing.

10. Recommendation

In order to overcome the risks and problems being faced by small and medium enterprises mentioned and explained in the study, they must ensure accelerating collections, utilization of available funds in an effective manner and proper control on disbursements as well as monitoring of cash control process. Maintaining adequate inventory must be ensured every time to meet the requirements of customers as and when they demand. For this purpose, firms must use modern techniques like Economic Order Quantity and Just in Time models. The firms must take steps for keeping receivables at a reasonable level.

Keeping in view the matching advantage of "Hedging Approach" of financing the assets, we recommend the same for use in SMEs. In order to adopt the same as an approach of financing the assets, these must hire professional people for keeping proper record of business transactions and keep on conducting cost benefit analysis regarding comparison of cost of capital, cost of long term and cost of short term loans. By doing so, the efficiency of SMEs will increase, which will result in improving the profitability and ultimately these will be upgraded to a position where these will be capable to meet their short term commitments. By adopting hedging approach, these enterprises will be able to reduce their financial charges which will again increase their profitability.

11. Conclusion

The results show that SMEs are using conservative approach for financing their current assets. It has been further proved through the analysis of fixed assets data. An interesting feature of the assets structure is that fixed assets have either remained constant or reduced (fixed assets of 10 firms out of 15 remained constant, 2 reduced and 3 increased but nominally). Further, current liabilities are already short of current assets. It provides evidence that suggests that fixed assets have not been financed through short term funding. Another important finding of the study is that in the SME sector, lenders do not give weight to the capital structure of the company.

Thus it is concluded that SMEs are using conservative approach not by choice but because they have no option or there is lack of options for using any other approach.

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Performance Evaluation of Conventional Banks in Pakistan by Using Non-financial Measures

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Abstract

Banks provide a variety of products/services to attract potential customers for greater returns. This study evaluates the performance of conventional banks by application non-financial measures based on an eight item scale. The responses were recorded from 432 bankers through simple random sampling technique. The results indicate that profitability got the highest rank by the employees as compared to other indicators. It shows that there is an increasing evolution among bankers regarding profitability. Similarly, quality of products and productivity reflects the second highest values. However, internal process coordination, market share and personnel activity coordination are placed in the middle by the bankers to reflect the performance of banks. Finally personnel voluntary rotation is ranked second last aspect followed by personnel absenteeism as the least preferred item to indicate the performance of conventional banks. It reflects lower scores due to decreasing evolution of these constructs among bankers. It could help to enhance understanding of readers, bankers and academicians to evaluate the performance of conventional banks in the existence of Islamic banks.

Key Words: Performance, Conventional Bank, Non-Financial Measures, Pakistan

1. Introduction

Services sector especially banking sector is getting popularity due to an increasing contribution towards GDP. Banks play an important role to stimulate saving and investment activities in the economy. Commercial banks have shown an outstanding performance during last few years and attracted a considerable amount of foreign direct investment (FDI) in the industry. Pakistani banking sector experienced drastic changes over its 63 years life. Banking industry experienced an expansion in its branch network and volume of total banking assets. The total number of branches has reached at 8233 by an increase of 343 branches within six months. Similarly total-banking assets stood Rs. 5155 billion by an increase of 203.1 billion in the first six months of the financial year 2007-08 (Economic Survey of Pakistan, 2007-08).

Pakistan has also experienced an unprecedented growth in the services sector especially banking sector due to its increasing contribution towards GDP. Banks provide a variety of products/services to attract potential customers for greater returns. Since its creation, Pakistani banking sector has experienced very turbulent environment due to unstable policies and uncertainty. State Bank of Pakistan (SBP) was established in 1948 as central bank to supervise the financial sector especially banking sector. Private sector banks dominated during 1950s and

1960s but they were nationalized in 1974. Nationalized banks showed very poor performance due to inferior products/services that resulted into the privatization of banking sector in 1992. Financial liberalization and deregulation created stiff competition among banks. It is found that there is a significant decline in banking efficiency due to individual policy reforms instead of paying-off (Burki & Niazi, 2003).

There are two banking systems that exist in Pakistan namely Islamic banking and conventional banking. Similarly, inception of Islamic banking in Pakistan and expansion of financing products especially consumer financing opened multiple avenues for conventional banks to exploit the opportunities. Islamic and conventional banks could be differentiated on the basis of objectives, risk sharing practices and interest based transactions (Ahmad et al. 2010). The existence of two banking system i.e. Islamic and conventional banking system requires a study to assess the performance of each system respectively. This study examines the performance of conventional banks by using non-financial measures in Pakistan. It could help to enhance understanding of readers, bankers and academician to evaluate the performance of conventional banks in the existence of Islamic banks. It is reported that banking sector reforms in Pakistan improved the overall performance of banks (Farooq et al. 2010). It is documented that conventional banks should focus on customer's specific demands and expectation for better performance to compete with Islamic banks in Pakistan (Ahmad, Rehman & Saif, 2010). Currently, there are more than 50 banks actively working in Pakistan to provide quality service to meet customers' expectation. The performance of Pakistani banking sector during last few years is shown in Table 1.

[Insert Table 1]

2. Literature Review

Banks are competing in a highly competitive environment to offer quality oriented services according to customers' expectations. Bank performance should be evaluated due to stiffer competition and customers' awareness of service quality. Privatization of financial sector especially banking sector in 1990s resulted in an expansion of market due to active participation local and foreign banks. Similarly, 21st century came with Islamic banking practices in Pakistan. Every bank is trying to enhance its performance by improving its service quality according to customers' expectations. It necessitated performance evaluation of conventional banks in the recent age. Performance of an organization could be assessed by resource-based view as explored by a number of researchers (Wernerfelt, 1984; Barney, 1991). It could be linked with market orientation, organizational learning, human resource productivity, quality improvement or any other component (Day, 1994; Banker & Sinkula, 1999).

The literature indicates the application of different qualitative and quantitative tools to measure the bank performance. There are a number of studies in the literature that used non-financial measures to evaluate the effectiveness and performance of organization (Quinn & Rohrbaugh, 1983; Venkatramanand, 1986). It is reported that a good measure of performance evaluation should be meaningful. It must reflect management's clarity about organization's current situation and its viability to achieve its goals. It should be manageable as it can be handled easily based on simple calculations and manipulation of data. It must be measurable and quantifiable. Similarly, it may be material, as it should provide material results of significant improvement (Ernst & Young, 1995).

Tvorik & McGivern (1997) investigated performance by comparing economic and organizational factors. They concluded that organizational factors influenced the profitability more than that of the economic factors. Successful organizations realized the importance of ongoing performance

measurement practices (Weiss & Hartle, 1998). Organizational performance could be linked with market orientation, organization learning, human resource productivity, quality improvement or any other component (Santos-Vijande et al., 2005).

Khalid (2006) reported that the performance of Pakistani banking sector had improved after privatization. Similarly, banking industry in Pakistan has shown an unprecedented growth as the best performing sector having banking assets of more than \$ 60 billions. Almost 81% of banking assets are owned by the private sector while foreign investors contributed 47% of total paid up capital (Akhtar, 2007). Pakistani banking sector has shown an excellent growth during last few years. Financial performance of banking sector was outstanding due to sufficient profitability, strong solvency, assets management quality, better risk management practices and continuous improvements for the provision of quality services. Total banking assets surpassed the limit of Rs. 4 trillion along with Rs. 100 billion pretax profits. (SBP, 2007).

3. Methodology

This study investigates the performance of banking sector especial conventional banks in Pakistan. Several studies used non-financial measures to assess the performance of organization (Quinn & Rohrbaugh, 1983; Kohli & Jaworski, 1990; Baker & Sinkula, 1999). A sample of 432 bank employees was selected through simple random sampling to record their responses regarding bank performance. The researcher selected six banks i.e. National Bank of Pakistan, Habib Bank of Pakistan, Muslim Commercial Bank, Askari Bank, United Bank Limited and Bank Alfalah. Bankers' responses were recorded by a modified version of an eight-item research instrument developed by Quinn & Rohrbaugh, (1983).

The responses were recorded regarding bank performance by considering different aspects. Data was collected by self administrative questionnaire through personal contact approach. Every respondent was asked to rank a number of aspects regarding his/her bank i.e. quality of product, market share, internal process coordination, profitability, and personnel rotation etc. Bank performance was assessed by using five point Likert scale as 1 = Decreasing evolution to 5 = Increasing evolution. Here evolution stands for development or progress (of that specific element) in relation to a specific bank in which respondent is working. The researcher compared the different aspects of bank performance by its aggregate values to have an assessment regarding performance of conventional banks in Pakistan.

4. Results and Discussion

Pakistani banking sector has shown tremendous growth during the recent years. Conventional banks are deep rooted in the Pakistan economy with varied experience since its creation. Initially they offered limited products/services but they started multiple functions to meet the specific needs of the different segments of the economy. Currently more than 50 banks are offering very sophisticated products/services in the existence of foreign, local, scheduled, specialized and Islamic banks. They strive to expand their operations to exploit the opportunities in the different parts of the country. Conventional banks are also major contributors towards GDP and economy. A snapshot of the performance of conventional banks in Pakistan is reflected in Figure 1.

[Insert Figure 1]

Figure 1 reveals the picture of conventional banks as an aggregate of responses collected from 432 bankers working in selected banks in Pakistan. It indicates that profitability got the highest rank by the employees as compared to other indicators. It shows that there is an increasing evolution among bankers regarding profitability. Similarly, quality of products and productivity

reflects the second highest values. However, internal process coordination, market share and personnel activity coordination are placed in the middle by the bankers. Finally personnel voluntary rotation is ranked second last aspect followed by personnel absenteeism as the least preferred item to indicate the performance of conventional banks. It reflects lower scores due to decreasing evolution of these constructs among bankers. The findings are in consistent with the previous studies as it found that employees of foreign banks significantly contributed towards profitability (Arby, 2003). Similarly, it is found that customer of conventional banks have lesser scores of service quality as compared to Islamic banks in Pakistan (Ahmad, et al. 2010). The performance of conventional bank in Pakistan is depicted in Figure 2.

[Insert Figure 2]

Figure 2 also presents a summary of performance of conventional banks in a different manner. The results indicate that profitability is the most important indicator of performance of conventional banks. It supported the literature as it is reported that deregulation could result into greater profitability (Dick, 2003). It is suggested that two principle paths could improve financial performance of banks i.e. by improving operational efficiency or improvement in customer services (Duncan & Elliott, 2004). The findings reveal that the quality of products offered by conventional bank reflects its performance due to increasing evolution. It is in line with the literature as it was found that service quality has a positive impact on bank performance (Akroush, 2008). Finally diagrammatical view of the performance of conventional banks is presented in Figure 3.

[Insert Figure 3]

Figure 3 reflects the results of current study are consistent with the literature. It is reported that there is an increase in the bank performance due to greater profitability, increased market share and more return on investments (Zairi, 2000). Similarly, it could generate positive outcomes for long-term profitability (Baker and Sinkula, 1999). A positive bank performance is reported by a number of researchers (Swan & Combs, 1976; Hallowell, 1996; Gritti and Foss, 2007). However it is reported that bankers show poor performance (decreasing evolution) regarding personal voluntary rotation and personnel absenteeism due to concentration on expansion of branch network (Ahmad, Rehman & Saif, 2010).

5. Conclusion

This study examines the performance of conventional banks working in Pakistan. Conventional banks are deep rooted and popular among public due to longer life span as compared to Islamic banks. Pakistani banking sector experienced very turbulent environment due to changing socio-economic conditions since its creation. Conventional banks faced severe competition from their peers as well as form Islamic banks. SBP was established on July 1, 1948 to supervise financial sector including banking sector in Pakistan. Similarly, blending of qualified manpower and high technology enables the banks to get more returns in terms of monetary and non-monetary benefits.

This study evaluates the performance of conventional banks by application non-financial measures based on an eight item scale. The responses were recorded from 432 bankers through simple random sampling technique. The results indicate that profitability got the highest rank by the employees as compared to other indicators. It shows that there is an increasing evolution among bankers regarding profitability. Similarly, quality of products and productivity reflects the second highest values. However, internal process coordination, market share and personnel activity coordination are placed in the middle by the bankers to reflect the performance of banks.

Finally personnel voluntary rotation is ranked second last aspect followed by personnel absenteeism as the least preferred item to indicate the performance of conventional banks. It reflects lower scores due to decreasing evolution of these constructs among bankers. This study could enhance the understanding of readers, bankers and academicians to assess the performance of the conventional banks in Pakistan.

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**Annexure
Figure 1**

Performance of Conventional Banks (Non-Financial Measures)

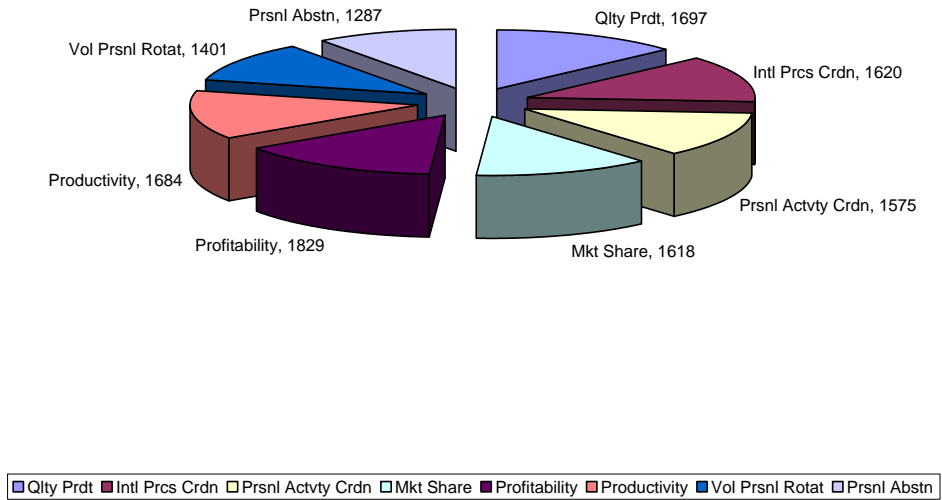


Figure 2

Performance of Conventional Banks (Non-Financial Measures)

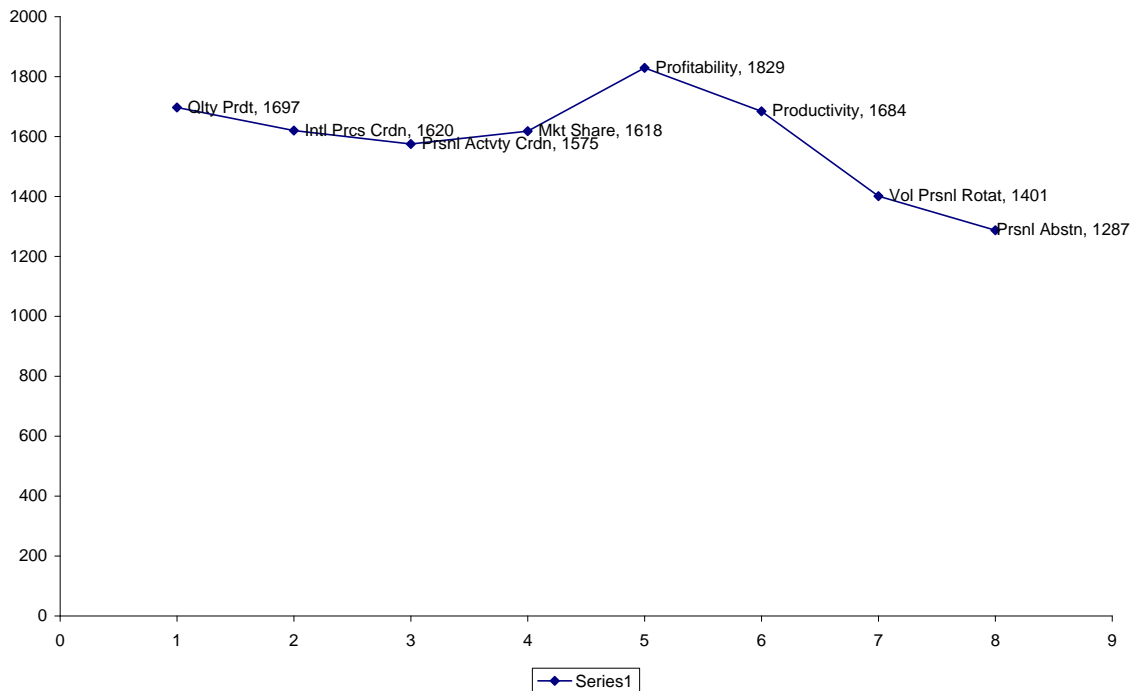


Figure 3

Performance of Conventional Banks (Non-Financial Measures)

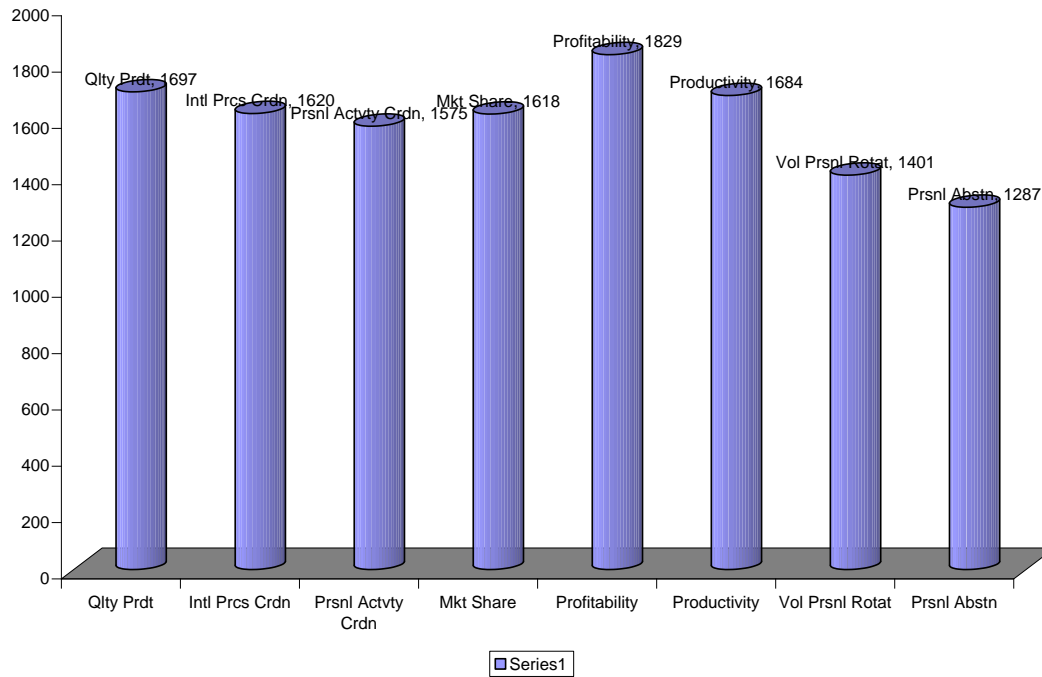


Table 1: Performance of Banks in Pakistan

Indicators	2006-07	2007-08
No. of Braches	7852	8233
Nationalized Commercial Banks	1690	1715
Private Banks	5597	5935
Specialized Banks	534	534
Foreign Banks	31	49
Assets (Rs. Billion)	4351.9	5155.1
Nationalized Commercial Banks	836.2	1017.2
Private Banks	3173	3845.2
Specialized Banks	119	1199
Foreign Banks	223.8	172.9
Net Advances (Rs. Billion)	2427.7	2694
Nationalized Commercial Banks	429.7	488.7
Private Banks	1807.2	2044.4
Specialized Banks	70.6	72.2
Foreign Banks	120.2	88.7
Deposits (Rs. Billion)	3255	3852
Nationalized Commercial Banks	665.6	813.1
Private Banks	2425.8	2907.8
Specialized Banks	13.5	13.5
Foreign Banks	150.1	117.6
Net Investment (Rs. Billion)	836.7	1275.5
Nationalized Commercial Banks	179.9	298.7
Private Banks	601.7	934.5
Specialized Banks	16.6	15.8
Foreign Banks	38.5	26.5

Source: Economic Survey of Pakistan, 2007-08

Electronic Government Services and Benefits in the private and public context: Saudi Arabia Case Study

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Abstract

The study was selected for its theoretical and practical importance in the field of E-government. This importance arises from that the E-government has the potential to involve citizens in the governance process by engaging them in interaction with policymakers throughout the policy cycle and at all levels of government. The population of the study is all employees working with electronic government in Riyadh City in Saudi Arabia. A stratified proportional-random sample of total population is selected in order to answer the questions posed in the questionnaire. Total of (250) useable questionnaires were obtained with a response rate of (70.8%).The questionnaire consists of two parts: The first part included general data of personal variables (management level, service period, sector, gender, and age) .The second part included (21) items representing benefits of E-Government. The five- point Likert scale was used for each item in the questionnaire. Statistical Package for Social Sciences (SPSS) which is usually used in the social sciences studies was chosen to analyze the collected data. The main results and conclusions of this study are summarized as follows: There are significant statistical evidences those differences between employees in the benefits of e-government due to the following factors: management level, service period, sector, gender, and age.

Keywords: E-Government, Services, Private and Public Context

1. Introduction

Since the early seventies of the last Century, the subject of work stress, its causes, effects E-government is not simply a matter of giving government officials computers or automating old practices. Neither the use of computers nor the automation of complex procedures can bring about greater effectiveness in government or promote civic participation. Focusing solely on technological solutions will not change the mentality of bureaucrats who view the citizen as neither a customer of government nor a participant in decision-making. (Helle,2008)

Understood correctly, e-government utilizes technology to accomplish reform by fostering transparency, eliminating distance and other divides, and empowering people to participate in the political processes that affect their lives.

Governments have different strategies to build e-government. Some have created comprehensive long-term plans. Others have opted to identify just a few key areas as the focus of early projects. In all cases, however, the countries identified as most successful have begun with smaller projects in phases on which to build a structure. (Nathan and Wamukoya 2007)

E-Government services are intangible products involving deeds, performances or efforts that cannot be physically possessed: it is differentiated from goods on four key dimensions that must be considered in successful, intangible, inseparability and variability.

Electronic Government Service is not unique to any country. In developed countries around the world, more and more of the total economic well being is dependent on services. As nations become more sophisticated, the demand for electronic government services grows. E-government services face several challenges when assessing the competitive environments, such as price competition and legal services.

In evaluating its competitive environment, E-government needs to find ways to differentiate its services from those of direct competitors.

2. Problem of the Study

There should be more effective linkages between citizens and government through e-government which can be done in phases and costs of implementation depend on current infrastructure availability, supplier and user capabilities, and mode of service delivery. The more complicated and sophisticated the kind of services the government wants to offer, the more expensive it is.

3. Related Literature Review

(David and others, 2004), investigated the factors related to decision making when people consider and evaluate the usage of an online e-government delivery mechanism. The approach taken was based on a combination of attitudinal technology adoption models and the service quality concept, with data gathered via a questionnaire.

The paper of (Efthimios and others, 2007) introduces a process for developing a metadata element set that will describe e-government resources in digital collections. The outcome of the process is a metadata schema that reuses as many elements as possible from existing specifications and standards (termed as an e-government metadata application profile). The use of e-government metadata is to facilitate the electronic categorization and storage of governmental resources, as well as to enhance users' electronic interactions with the public sector.

(Stephen Harries, 2009) aims to stimulate debate on the future development of records management, especially in the public sector, in the context of challenges from modernization of government and from social and cultural changes emerging from internet developments. He discusses relevant concepts of knowledge, records and public sector change, and attempts a high-level synthesis.

(Habin and others, 2008) contributes to the literature by enriching the views on e-government services and their evaluation via introducing a reference model concept. The CEES project will be the first attempt to apply the reference model concept in the information systems evaluation domain. Despite the wide adoption of reference models in software process, software design, and business process automation, the concept is yet to be applied to the IS evaluation domain.

(Yousef Elsheikh and others, 2008), examines the challenges encountered in e-government implementation, as well as the potential opportunities available in the context of Saudi society. The findings and implications of this study reveal Jordan is still lagging behind in utilizing information and communication technologies for delivering government services online. An understanding of the current status of e-government in Saudi Arabia can help policy makers in the country pursue development of the public sector organizations on the one hand, and would be of importance for Saudi Arabia's economic future success on the other

(Nathan and others,2007), indicate that, with the proliferation of information communication technologies (ICT), electronic records are being generated in many public sector organizations in Africa, which has resulted in many challenges hitherto never experienced by archivists and records managers.

Also shows that, while various e-records readiness tools are available in the West, none of them addresses e-records readiness issues in Africa where systems and procedures for managing records both paper and electronic are inadequate.

(Helle and others,2008),present a case study where standardized case handling processes have been transferred from a manual system to an IT system, and then to demonstrate the implications of implementing an electronic records management system (ERMS) in an environment – the Punjabi province of Pakistan – which is unfamiliar with the features embedded in ERMS.

(Hepu Deng, 2008), develops a methodology for evaluating the progress of individual countries worldwide in their adoption of electronic government (e-government) with the rapid advance in information and communication technologies (ICTs). Recognizing the multi-dimensional nature of the progress evaluation and comparison process, this paper formulates the inter-country performance evaluation process in e-government adoption as a multi-criteria analysis problem and presents an objective multi-criteria approach for solving the problem in an effective and straightforward manner.

(Fang-Ming and others ,2009) investigate the efficiency and satisfaction of electronic records management systems (ERMS), which has been of interest to archivists and records managers, in electronic government (e-government) agencies in Taiwan. Also applies data envelopment analysis to measure the relative efficiency and satisfaction in different types of e-government agencies. After conducting a large-scale survey of e-government agencies in Taiwan, a matrix of efficiency and satisfaction is developed and show that the efficiency of ERMS in central agencies exceeds that in local agencies, and the efficiency in upper level agencies exceeds that in lower level agencies. The efficiency in business agencies exceeds that in administration agencies and public schools. Additionally, ERMS user's satisfaction in e-government agencies is linearly related to ERMS efficiency.

(N Ben and Rogerson, 2006), looks at citizen-facing e-government and considers how the non-discretionary nature of the citizen's relationship with government makes citizen-facing e-government different from business-consumer e-commerce. E-government should offer a good level of data protection and security, and has a role in educating citizens in matters of computer

security. Advantages and disadvantages that may come from e-government adoption are considered, including a number of ways in which cost savings and increases in convenience may be achieved.

(France and Hiller, 2006), proposes a conceptual framework of the stages of electronic government that describes and integrates the unique relationship between the government and its varied constituents, and identifies and applies the global constraints that affect the implementation of e-government at each stage. The paper then provides an example of implementation of the framework by exploring the issue of privacy in electronic government. The relationships mapped the stages of e-government, affected by global motivators and constraints, are unique and complex. Policy and implementation of e-government should take account of these complexities. Privacy in e-government issues differs significantly when global motivators and constraints are viewed across the complex framework of government stages by constituency.

The study of (Chang E and others, 2006), examine how information technology, strategic planning processes, and people interact in an emerging e-government environment. Government agencies must evaluate how strategic e-government plans are developed, communicated, and integrated into the work environment. Without the proper understanding of the importance of e-government initiatives, employees do not place high value on e-government initiatives. The study focuses on one group of stakeholders, employees.

(Maria and others, 2008), review selected literature on e-government service orientation and highlight differences between academic theory and empirical findings. A systematic database search is undertaken to identify the literature related to e-government and service orientation.

4. Significance of the Study

The subject of this study was selected for its theoretical and practical importance in the field of E-government. This importance arises from that the E-government has the potential to involve citizens in the governance process by engaging them in interaction with policymakers throughout the policy cycle and at all levels of government.

5. Objectives of the Study

In general, this study aims at achieving the following objectives:

- i. Compare the relationship between the management level variable and the variant study dimensions (Benefits of Electronic Government in the private and public).
- ii. Compare the relationship between the service period of the employee variable and the variant study dimensions (Benefits of Electronic Government in the private and public).
- iii. Compare the relationship between the sector variable and the variant study dimensions (Benefits of Electronic Government in the private and public).
- iv. Compare the relationship between the gender variable and the variant study dimensions (Benefits of Electronic Government in the private and public).

- v. Compare the relationship between the age variable and the variant study dimensions (Benefits of Electronic Government in the private and public).

6. Terminology of the Study

Electronic Government: Refers to the use of information technology to free movement of information to overcome the physical bounds of traditional paper and physical based systems

7. Hypotheses of the Study

In the light of the results of the previous studies and the objectives of this study, a number of basic hypotheses will be tested regarding the effect of the benefits of electronic government and the personal variables. These hypotheses are:

- i. There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to the management level of employee.
- ii. There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to service period of employee
- iii. There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to sector of employee
- iv. There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to gender of employee
- v. There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to age of employee

8. Limitations of the Study

As it is expected to contribute to theoretical and practical areas, this study is limited to the following:

- i. It is based only on a questionnaire that was especially developed to fulfill the objectives of the study. Therefore, the results are confined to its validity and reliability.
- ii. It is restricted to the employees working in Amman City.

9. Population and Sample

The population of the study is all employees working with electronic government in Riyadh City in Saudi Arabia

A stratified proportional-random sample representing (1%) of total population is selected in order to answer the questions posed in the questionnaire. Total of (250) useable questionnaires were obtained with a response rate of (70.8%).Table (1).

10. Data Collection

The study adopts two sources of data: secondary and primary data. Secondary data are obtained from literature published in this subject including previous studies. The primary data are

collected from field study conducted through a questionnaire that was developed for such purpose. The questionnaire consists of two parts: The first part included general data of personal variables (management level, service period, sector, gender, and age) .The second part included (21) items representing benefits of E-Government. The five- point Likert scale was used for each item in the questionnaire: “strongly agree” given (5) points, “agree” given (4) points, “neutral” given (3) points, “disagree” given (2) points, “strongly disagree” given 1 point. Hence, the average of the item is three points. This average is used to disclose the significance of the causing factors of work stress. If the average of a factor super exceeds the (three), it would be considered a high significant factor, but if it was less than the (three), it would be considered a low significant factor.

11. Data Analysis Methods

Statistical Package for Social Sciences (SPSS) which is usually used in the social sciences studies was chosen to analyze the collected data. The following statistical methods for analysis are adopted: Descriptive statistics, to describe the characteristics of the sample depending on frequencies, percentages, means, and standard deviation, “t-test” and “Scheffe test” for prior comparisons, ANOVA to measure the effects of the independent variables on the dependent variable.

11.1 Validity

The questionnaire has been evaluated by instructors from the Saudi universities. Their remarks and comments were taken into consideration. For further validity test, the responses of (28) individuals of the sample were tested and evaluated.

11.2 Reliability

Reliability with composite measures is evaluated for the internal consistency through the “Cronbach’s Alpha” measure. The Alpha’s for the items are not below (0.77). Therefore, it can be concluded that the reliability of the questionnaire is high.

12. Characteristics of the Sample

Table (1) shows the sample distribution according to the demographic variables. Figures show that 51.6% working in middle management level and 49.2% have 10 years to less than 15 years of Service Period and 50.8% working in public sector and 54.0% male.

Table (2) shows that the employees feel strongly (mean is 4.9820) with variables 2, 3 and 15 which stated that some of the benefits of Electronic Government are: improve delivery of services to citizens, improve interface with business and industries and reduce transaction costs. Table (2) also shows that the employees do not feel strongly with variable7 (the benefit of Electronic Government is Less corruption), (mean is 4.4040).

13. Testing the Hypotheses of the Study

As stated earlier, the main stream of the hypotheses of this study is to test the differences between employees according to some important variables: management level, service period, sector, gender, and age.

13.1 Hypothesis (1)

There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to the management level of employee.

To test this hypothesis, the “independent sample t. test” analysis was applied (summarized in Table (3)). The value of means indicates that employees feel in the variable 7 more than in variable 21. Therefore, the null hypothesis can be accepted, and it can be concluded that there is significant statistical evidence that differences between the employees exist according to their management level.

It is worth of mentioning that this result is similar to most studies done on the subject.

13.2 Hypothesis (2)

There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to service period of employee. To test this hypothesis, the ANOVA analysis was applied (shown in Table(4)).

Therefore, the null hypothesis can be accepted, and it can be concluded that there is significant statistical evidence that differences between employees according to their service period in variables 4, 7,8,15 and 21. To recognize who feels the strength of the benefits of e-government, the “Scheffe test” is applied for a priori comparison. (Shown in Table (5)).

Result of the Scheffe test showed that those employees whose service period are 5 years to less than 10 years and the one whose service period are 10 years to less than 15 years feel the benefits of e-government more than employees whose service period are 15 years and more in variables4, 8, and15 (Empower citizens thought access to knowledge and information, Growth of Revenue and Reduce transaction costs)

To compare this result to results of other studies on the subject, it can be said that this result is similar to most studies done on the subject.

Result of the test also showed that those employees whose service period are 10 years to less than 15 years and whose service period are15 years and more feel the benefits of e-government more than employees whose service period are 5 years to less than 10 years in variables 7and21 (Less corruption and Improve services to the public)

To compare this result to results of other studies on the subject, it can be said that this result is similar to most studies done on the subject.

13.3 Hypothesis (3)

There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to sector of employee

To test this hypothesis, the “independent sample t. test” analysis was applied (summarized in Table(6)). The value of means indicates that employees feel in the variables 4,5,8, and 15

(Empower citizens thought access to knowledge and information, More transparency and Growth of Revenue) in public sector more than in private sector and employees feel in the variable 21 in private sector more than in public sector . Therefore, the null hypothesis can be accepted, and it can be concluded that there is significant statistical evidence that differences between the employees exist according to sector.

13.4 Hypothesis (4)

There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to gender of employee

To test this hypothesis, the “independent sample t. test” analysis was applied (summarized in Table (7)). The value of means indicates that male employees feel in the variables 5,18 and 19 more than female employees. Therefore, the null hypothesis can be accepted, and it can be concluded that there is significant statistical evidence that differences between the employees exist according to their gender.

Also the value of means indicates that female employees feel in the variables 20 and 21 more than male employees

13.5 Hypothesis (5)

There are statistical significant evidences that differences exist between employees to benefits of E-Government in the private and public due to age of employee.

To test this hypothesis, the ANOVA analysis was applied (shown in Table (8)).

Therefore, the null hypothesis can be accepted, and it can be concluded that there is significant statistical evidence that differences between employees according to age in variables 6,7,9 and 10. To recognize who feels the strength of the benefits of e-government, the “Scheffe test” is applied for a priori comparison. (Shown in Table (9)).

Result of the Scheffe test showed that those employees whose age are 30-Less than 40 years feel the benefits of e-government more than employees whose age are 25- Less than 30 years and 40 years and more in variables 6,7,9, and10

To compare this result to results of other studies on the subject, it can be said that this result is similar to most studies done on the subject.

16. Statistical Results

What are the major the benefits of e-government? It was found that there are positive attitudes toward statements mentioned in table (2) because their means are above mean of the scale (3), also a quick review of the result in table 2 reveals clearly that variables 2, 3 and 15 has the highest mean value (4.9820) and this means that the respondents feel very strongly that some of the benefits of Electronic Government are: improve delivery of services to citizens, improve interface with business and industries and reduce transaction costs. This should not come as a surprise.

Variable (7) has the least mean value (the benefit of Electronic Government is Less corruption), (mean is 4.4040).

17. Conclusions

The main results and conclusions of this study are summarized as follows: There are significant statistical evidences that differences between employees exists in the benefits of e-government. These differences are due to the following factors: management level, service period, sector, gender, and age.

18. Recommendations

In order to lighten benefits of e-government, the study recommends the following:

- i. The private sector should play a critical role in funding e-government projects.
- ii. E-government projects must be financially sustainable
- iii. Governments should create websites that allow users to conduct transactions online
- iv. E-government should have the potential to involve citizens in the governance process by engaging them in interaction with policymakers throughout the policy cycle and at all levels of government.

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Annexure

Questionnaire

Electronic Government Benefits in the private and public context: Saudi case study

Part One – Personal Data:

1. Management Level:

- Middle Management.
- First line management.

2. Service Period:

- 5 years to less than 10 years.
- 10 years to less than 15 years.
- 15 years and more.

3. Sector:

- Public.
- Private.

4. Sex:

- Male.
- Female.

5. Age:

- 25- Less than 30 years.
- 30-Less than 40 years.
- 40 years and more.

Part Two – Questionnaire statements

Put the sign (√) in front of each item of the following on the right column:

No.	Electronic Government Benefits	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Creating more efficient and convenient relations government to government					
2	Improve delivery of services to citizens					
3	Improve interface with business and industries					
4	Empower citizens thought access to knowledge and information					
5	More transparency					
6	Smoother flow of information					
7	Less corruption					
8	Growth of Revenue					
9	Reduction of Cost					
10	Creating more efficient and convenient relations citizen to government					
11	Allocation of resources					
12	More Public awareness					
13	Reduction in the duplication of efforts					
14	Improve competitiveness					
15	Reduce transaction costs					
16	Affordable and equitable access to online government services					
17	Security of transactions					
18	Alternative methods of service delivery					
19	Ensure the privacy and security of information and transactions					
20	Creating more efficient and convenient relations citizen to business					
21	Improve services to the public					

Table 1: Sample Distribution

Percent	Frequency		
51.6	129	Middle Management.	Management Level
48.4	121	First line management.	
100.0	250	Total	
Percent	Frequency		
32.4	81	5 years to less than 10 years	Service Period
49.2	123	10 years to less than 15 years.	
18.4	46	15 years and more	
100.0	250	Total	
Percent	Frequency		
50.8	127	Public	sector
49.2	123	Private	
100.0	250	Total	
Percent	Frequency		
54.0	135	Male	gender
46.0	115	Female	
100.0	250	Total	
Percent	Frequency		
28.8	72	25- Less than 30 years	age
30.8	77	30-Less than 40 years	
40.4	101	40 years and more	
100.0	250	Total	

Table 2: Standard Deviation and Mean for all variables

Standard Deviation	Mean	Variables
.20830	4.9520	1
.20830	4.9820	2
.20830	4.9820	3
.20830	4.8720	4
.20830	4.7766	5
.20830	4.3741	6
.77975	4.4040	7
.20830	4.5118	8
.20830	4.8811	9
.20830	4.6771	10
.20830	4.9408	11
.20830	4.9720	12
.20830	4.9720	13
.20830	4.5252	14
.20830	4.9820	15
.20830	4.6251	16
.20830	4.9720	17
.20830	4.9720	18
.20830	4.7862	19
.20830	4.8890	20
.67444	4.7987	21

Table 3: T. Test for Management Level

Variable 21	Variable 7		level
4.5581	4.9457	Mean	1.00
.83766	.22742	Std. Deviation	
4.8760	4.6529	Mean	2.00
.37794	1.07789	Std. Deviation	
4.7120	4.8040	Mean	Total
250	250	N	
.67444	.77975	Std. Deviation	

Table 4: ANOVA analysis for service period

Sig.	F	Mean Square	df	Sum of Squares	Variables	
.012	4.50 2	.190	2	.380	Between Groups	4
		.042	247	10.424	Within Groups	
			249	10.804	Total	
.000	9.49 4	5.404	2	10.808	Between Groups	7
		.569	247	140.588	Within Groups	
			249	151.396	Total	
.012	4.50 2	.190	2	.380	Between Groups	8
		.042	247	10.424	Within Groups	
			249	10.804	Total	
.012	4.50 2	.190	2	.380	Between Groups	15
		.042	247	10.424	Within Groups	
			249	10.804	Total	
.000	21.0 84	8.258	2	16.517	Between Groups	21
		.392	247	96.747	Within Groups	
			249	113.264	Total	

Table 5: Scheffe test for service period

Sig.	Std. Error	Mean Difference (I-J)	(J) service	(I) service	Variables
.858	.02940	.01626	2.00	1.00	4
.018	.03793	.10870(*)	3.00		
.858	.02940	-.01626	1.00	2.00	
.035	.03550	.09244(*)	3.00		
.018	.03793	-.10870(*)	1.00	3.00	
.035	.03550	-.09244(*)	2.00		
.001	.10796	-.42066(*)	2.00	1.00	7
.002	.13929	-.49383(*)	3.00		
.001	.10796	.42066(*)	1.00	2.00	
.854	.13039	-.07317	3.00		
.002	.13929	.49383(*)	1.00	3.00	
.854	.13039	.07317	2.00		
.858	.02940	.01626	2.00	1.00	8
.018	.03793	.10870(*)	3.00		
.858	.02940	-.01626	1.00	2.00	
.035	.03550	.09244(*)	3.00		
.018	.03793	-.10870(*)	1.00	3.00	
.035	.03550	-.09244(*)	2.00		
.858	.02940	.01626	2.00	1.00	15
.018	.03793	.10870(*)	3.00		
.858	.02940	-.01626	1.00	2.00	
.035	.03550	.09244(*)	3.00		
.018	.03793	-.10870(*)	1.00	3.00	
.035	.03550	-.09244(*)	2.00		
.000	.08956	-.57302(*)	2.00	1.00	21
.000	.11554	-.45867(*)	3.00		
.000	.08956	.57302(*)	1.00	2.00	
.573	.10816	.11435	3.00		
.000	.11554	.45867(*)	1.00	3.00	
.573	.10816	-.11435	2.00		

- The mean difference is significant at the .05 level.

Table 6: T. Test for sector

21	15	8	5	4		sector
4.5354	4.8449	4.7449	4.5449	4.2449	Mean	public
.85259	.29024	.29024	.29024	.29024	Std. Deviation	
4.9943	5.0000	5.0000	5.0000	5.0000	Mean	private
.33420	.00654	.09356	.03031	.10927	Std. Deviation	

Table 7: T. Test for gender

21	20	19	18	5		gender
4.8741	4.8765	5.0000	4.9121	4.9000	Mean	male
.35470	.21099	.304551	.23266	.10455	Std. Deviation	
4.5217	5.0000	4.7391	4.7391	4.6391	Mean	female
.88206	.30455	.50455	.30455	.30455	Std. Deviation	

Table 8: ANOVA analysis for age of employee

Sig.	F	Mean Square	df	Sum of Squares		
.006	5.248	.220	2	.440	Between Groups	q6
		.042	247	10.364	Within Groups	
			249	10.804	Total	
.018	4.093	2.429	2	4.857	Between Groups	q7
		.593	247	146.539	Within Groups	
			249	151.396	Total	
.006	5.248	.220	2	.440	Between Groups	q9
		.042	247	10.364	Within Groups	
			249	10.804	Total	
.006	5.248	.220	2	.440	Between Groups	q10
		.042	247	10.364	Within Groups	
			249	10.804	Total	

Table 9: Scheffe test for age of employee

Sig.	Std. Error	Mean Difference (I-J)	(J) age	(I) age	Variable
.027	.03358	.09091(*)	2.00	1.00	6
1.000	.03159	.00000	3.00		
.027	.03358	-.09091(*)	1.00	2.00	
.015	.03099	-.09091(*)	3.00		
1.000	.03159	.00000	1.00	3.00	
.015	.03099	.09091(*)	2.00		
.359	.12627	-.18110	2.00	1.00	7
.018	.11880	-.33938(*)	3.00		
.359	.12627	.18110	1.00	2.00	
.399	.11653	-.15829	3.00		
.018	.11880	.33938(*)	1.00	3.00	
.399	.11653	.15829	2.00		
.027	.03358	.09091(*)	2.00	1.00	9
1.000	.03159	.00000	3.00		
.027	.03358	-.09091(*)	1.00	2.00	
.015	.03099	-.09091(*)	3.00		
1.000	.03159	.00000	1.00	3.00	
.015	.03099	.09091(*)	2.00		
.027	.03358	.09091(*)	2.00	1.00	10
1.000	.03159	.00000	3.00		
.027	.03358	-.09091(*)	1.00	2.00	
.015	.03099	-.09091(*)	3.00		
1.000	.03159	.00000	1.00	3.00	
.015	.03099	.09091(*)	2.00		

* The mean difference is significant at the .05 level.

Application of Non-Financial Measures for Assessment of Performance of Islamic Banks in Pakistan

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Abstract

This study investigates the performance of Islamic banks working in Pakistan. Islamic banks have a great potential to exploit the benefits from the Islamic Republic of Pakistan, country with more than 96% Muslim population. Pakistani banking sector especially Islamic banks has shown unprecedented growth during the last few years due to expansion of market and diversified products. This study applied non-financial measures based on an eight item scale to assess the performance of the Islamic banks. The responses were recorded from 432 bankers through simple random sampling technique. The results show that bankers consider product quality, profitability and productivity as more important indicators of performance with increasing evolution towards these items. While personnel voluntary rotation and personnel absenteeism are ranked low due to decreasing evolution among bankers. Interestingly, internal process coordination and personnel activity coordination are placed in the middle as the bankers reported neutral responses. This study could enhance the understanding of readers, bankers and academicians to assess the performance of the Islamic banks in Pakistan.

Key Words: Performance of Islamic Banks, Non-Financial Measures, Pakistan.

1. Introduction

Organization is a structured entity that is established to achieve specific goals. It consists of physical, human, informational and financial resources that are combined to realize certain objectives. Business organization is primarily formed for the sake of profit by performing legal activities. Bank is also one of the business organizations that offer a large number of products and service for profit. Organization consists of goal oriented, boundary-maintained and socially constructed systems of human activity (Aldrich, 1979). Every organization is trying to enhance the performance of individuals for overall improvement of the whole organization. Performance evaluation enables the organization to assess its efficiency and effectiveness over a period of time by comparing its actual performance with planned performance. In today's global, dynamic and competitive environment banks should improve and diversify their products and services to meet changing customers' demands to enhance their performance for successful survival. There are a few studies available in the literature that measured the performance of Islamic banks across the globe. Performance measurement became indispensable for the successful survival of banks due to stiff competition and customers' awareness of service quality. Researchers explored a number of indicators to assess the organizational performance (Dess & Robinson, 1984).

Islamic banks are successfully competing with conventional banks around the globe and have a great potential to replace the traditional Riba-based banking system. In Pakistan, the Islamic banks showed a very satisfactory growth during last few years having a complete alternative banking system. A very healthy competition is witnessed between the two banking streams that reflect the superiority of Islamic banks as they are growing at a rate of 114 percent in terms of size and structure. The total assets are growing at a very favorable rate of 67% with deposits amounting Rs. 83.7 billion (SBP, 2007). There is a sharp increase in the volume and market share, which is depicted in table 1.

[Insert Table 1]

2. Previous Studies

Organizational performance reflects an organization's understanding and knowledge regarding customer needs and expectations (Kohli & Jaworski, 1990; Deshpande *et al.*, 1993; Slater & Narver, 1995). It is reported that an organization can maximize the customer satisfaction for better profitability, increased sales volume that ultimately improves its performance for long term benefit (Baker & Sinkula, 1999). Generally, organizational performance is assessed by the application of financial measures. There are a number of studies in the literature that used non-financial measures to evaluate the effectiveness and performance of organization (Quinn & Rohrbaugh, 1983; Venkatramanand, 1986). It is suggested that four models i.e. human relations; internal process; open system and rationale goal model could represent the organizational performance (Quinn & Rohrbaugh, 1983).

Wheelen & Hunger (1998) argue that appropriate performance measures depend on the organizations and their objectives i.e. profitability, market share and cost reduction. Financial indicator like return on investment (ROI), earning per share (EPS) and return on equity (ROE) etc. are used by number of organizations for the assessment of their progress. Return on investment is used to reflect the profitability while corporate performance was measured by operating cash flows and return on investment capital (Sorenson, 2002).

The researchers use a number of qualitative and quantitative tools to measure the bank performance. It is reported that a good measure of performance evaluation should be meaningful. It must reflect management's clarity about organization's current situation and its viability to achieve its goals. It should be manageable as it can be handled easily based on simple calculations and manipulation of data. It must be measurable and quantifiable. Similarly, It may be material, as it should provide material results of significant improvement (Ernst & Young, 1995). It is reported that Pakistani banking sector has shown good performance by attracting a large number of customers due to the provision of quality services (Arby, 2003).

Rashid *et al.* (2003) measured firm's financial performance using the financial indicators such as return on assets, return on investments and current ratios. However, financial ratios reflect the financial health of the organization in terms of profitability, liquidity, leverage, asset utilization and growth ratios (Ho & Wu, 2006). Similarly, different financial indicators (e.g. return on sales, return on assets, return on equity and market-to-book ratio) were used to investigate the relationship between organizational innovation and performance (Kuo & Wu, 2007).

3. Methodology

This study examines the performance of Islamic banks in Pakistan by application of non-financial measures. There are a number of studies in the literature that used non-financial measures to gauge the performance of organization (Quinn & Rohrbaugh, 1983; Kohli & Jaworski, 1990; Baker & Sinkula, 1999). A sample of 432 bank employees was selected through simple random sampling to record their responses regarding bank performance. The researcher selected six full fledged Islamic banks i.e. Meezan Islamic Bank, Dawood Islamic Bank, Dubai Islamic Bank, Albaraka Islamic Bank, Bankislami Pakistan and Emirates Global Islamic bank. Performance of Islamic banks is measured by a modified version of an eight-item research instrument developed by Quinn & Rohrbaugh, (1983).

The responses were recorded regarding bank performance by considering different aspects. Every respondent was asked to rank a number of aspects regarding his/her bank i.e. quality of product, market share, internal process coordination, profitability, and personnel rotation etc.

Bank performance was assessed by using five point Likert scale as 1 = Decreasing evolution to 5 = Increasing evolution. Here evolution stands for development or progress (of that specific element) in relation to a specific bank in which respondent is working. The researcher compared the different aspects of bank performance by its aggregate values to have an assessment regarding performance of Islamic banks in Pakistan.

4. Results and Discussion

Islamic banks have shown tremendous growth during the recent years. Islamic banks are offering a variety of products and services to its customers. They strive to expand their operations and perform multiple functions to attract the prospective customers for greater profit. It requires the quality initiatives to retain valued customers by meeting their expectations for better performance. A snapshot of the performance of Islamic banks in Pakistan is reflected in Figure 1.

[Insert Figure 1]

Figure 1 reveals the picture of Islamic banks as an aggregate of responses documented from 432 bankers working in selected banks in Pakistan. It indicates that quality of products, profitability and productivity are highly ranked by the employees as compared to other indicators. It shows that there is an increasing evolution among bankers regarding these aspects. However, personnel voluntary rotation and personnel absenteeism reflects lower scores due to decreasing evolution of these constructs among bankers. Interestingly, internal process coordination and personnel activity coordination are placed in the middle as the bankers reported neutral responses. The results are in line with the literature as it is reported that the performance of Islamic banks meets the international standards in terms of profitability (Iqbal *et al.* 1998). Similarly, Islamic bank proved a successful experience in Pakistan and gained popularity among general public. It is reported that employees of domestic banks do not contribute towards profitability. But employees of foreign banks significantly contributed towards profitability (Arby, 2003). Similarly, it is found that customer of Islamic banks have greater score of service quality as compared to conventional banks in Pakistan (Ahmad, *et al.* 2010). The performance of Islamic bank in Pakistan is depicted in Figure 2.

[Insert Figure 2]

Figure 2 also presents a glossary of performance of Islamic banks in a different manner to reflect the importance of service quality, profitability and productivity of banks in the recent age. Dick (2003) examined the service quality and bank performance in the United States. It was found that deregulation has increased the branch network of banks to attract more and more customers that resulted into more profits with increased risks due to changing demographics. Findings showed that improved service quality resulted in increased service fee and risk could be reduced by geographical diversification and hedging. It is reported that two principle paths can improve financial performance of banks i.e. by improving operational efficiency or improvement in customer services (Duncan & Elliott, 2004). Finally, researcher also presented the diagrammatical view of the performance of Islamic banks in figure 3.

[Insert Figure 3]

Figure 3 indicates that the results of current study are consistent with the literature. Dick (2007) reported that market concentration is not affected by its size. Dominant banks have almost similar influence on markets of different size. The study found that service quality is enhanced and focused by dominant banks. Performance evaluation provides sufficient information to take better and informed business decisions. Better decisions result in more profitability and improved

performance for the institution and its shareholders (Crider, 2007). However it is reported that bankers show poor performance (decreasing evolution) regarding personal voluntary rotation and personnel absenteeism due to concentration on expansion of branch network according instructions of State Bank of Pakistan (Ahmad, Rehman & Saif, 2010).

5. Conclusion

This study investigates the performance of Islamic banks working in Pakistan. Islamic banks have a great potential to exploit the benefits from the Islamic Republic of Pakistan, a country with more than 96% Muslim population. In 2002, Islamic banking practices were introduced under the supervision of State Bank of Pakistan in the existence of conventional banks. It created strong competition in the banking industry to attract larger number of customers for long term benefits. Pakistani banking sector especially Islamic banks has shown unprecedented growth during the last few years due to expansion of market and diversified products. Similarly, trained work force and use of latest technology enables the banks to get more returns in terms of monetary and non-monetary benefits.

This study applied non-financial measures based on an eight item scale to assess the performance of the Islamic banks. The responses were recorded from 432 bankers through simple random sampling technique. The results show that bankers consider product quality, profitability and productivity as more important indicators of performance with increasing evolution towards these items. While personnel voluntary rotation and personnel absenteeism are ranked low due to decreasing evolution among bankers. Interestingly, internal process coordination and personnel activity coordination are place in the middle as the bankers reported neutral responses. This study could enhance the understanding of readers, bankers and academicians to assess the performance of the Islamic banks in Pakistan.

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Annexure

Figure 1

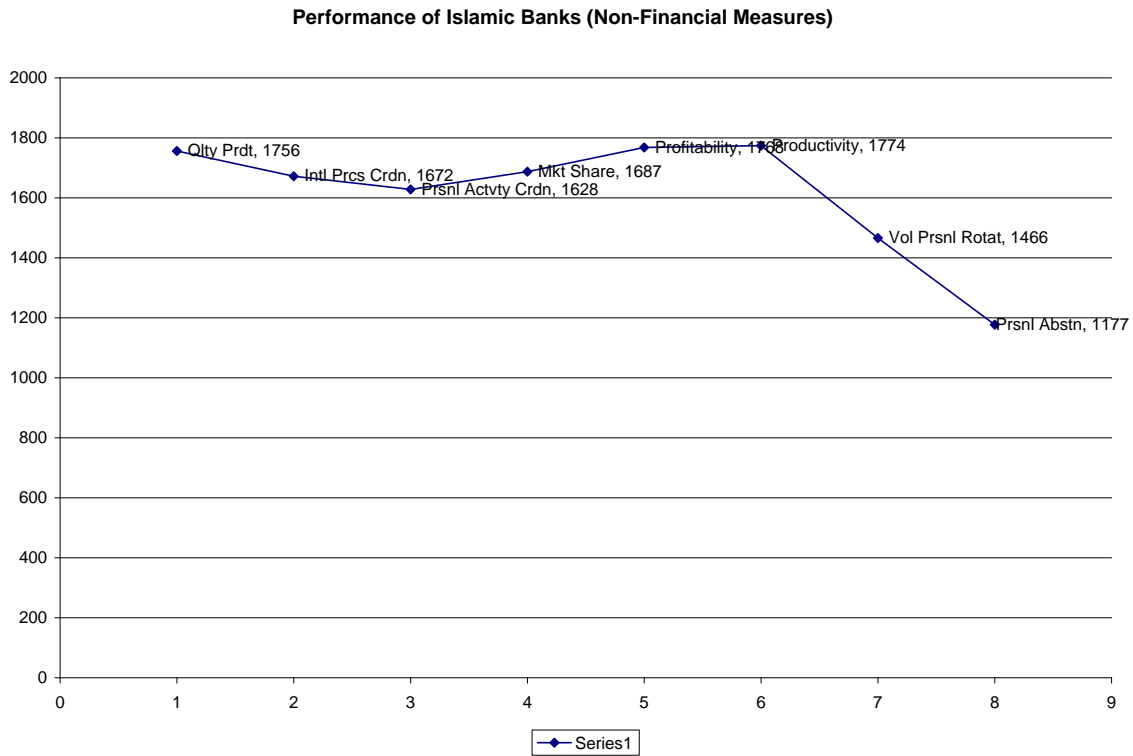


Figure 2: Performance of Islamic Banks (Non-Financial Measures)

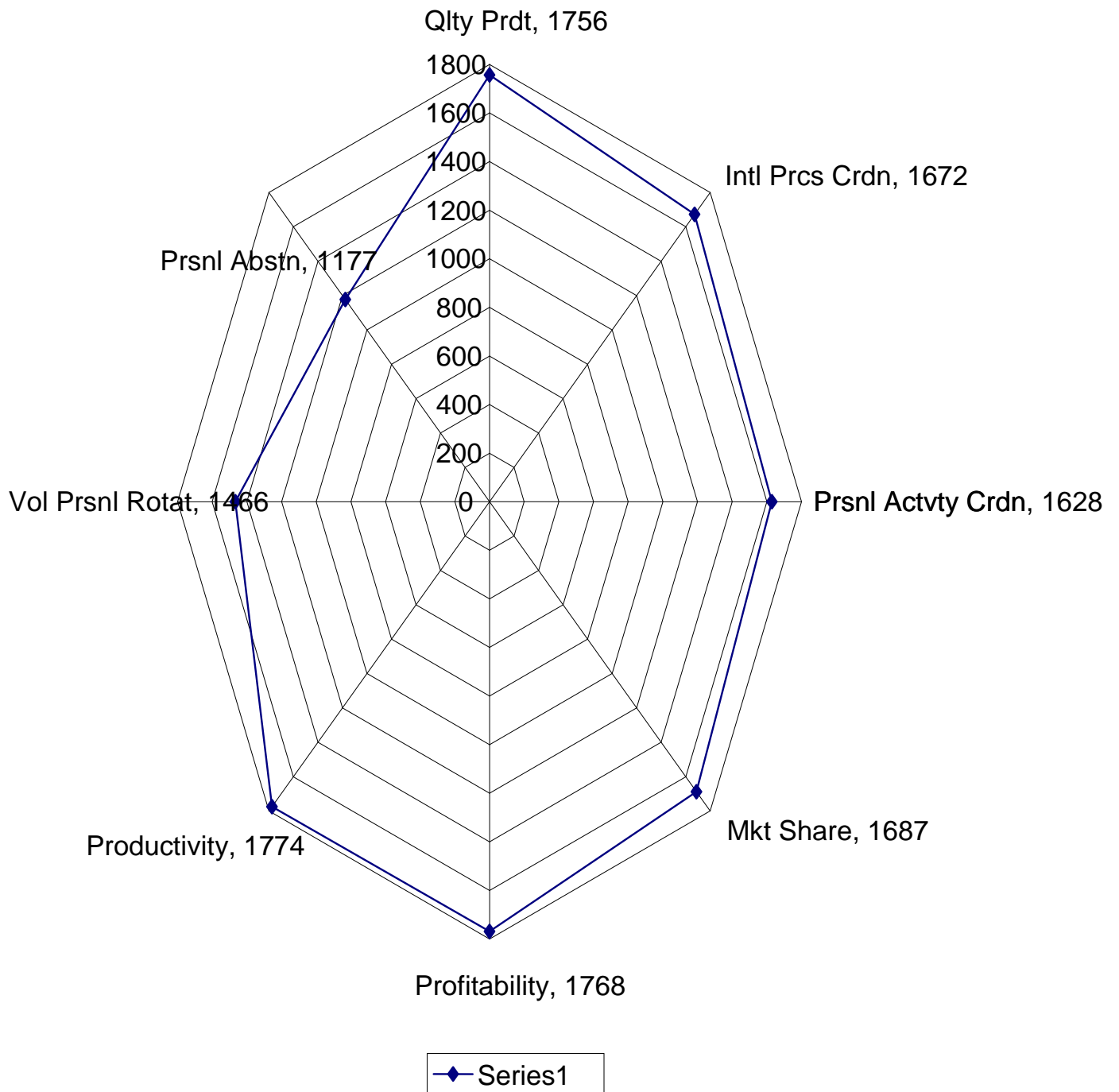


Figure 3

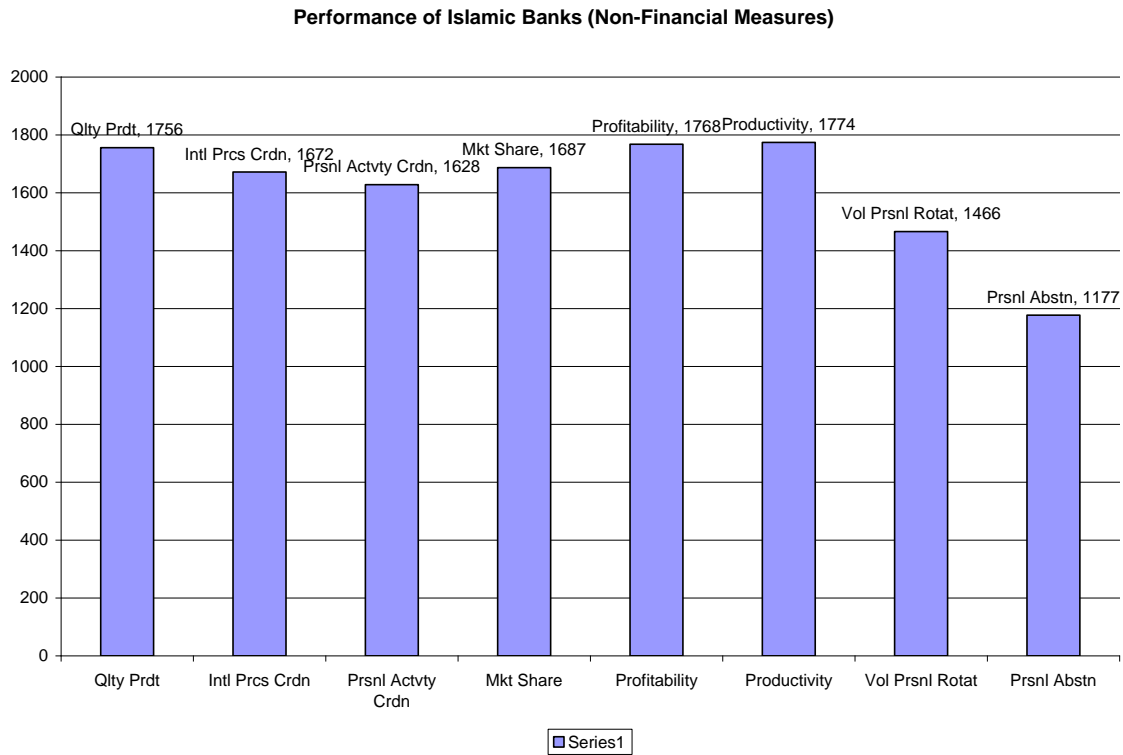


Table 1: Financial Performance of Islamic Banks

Indicators	FY03	FY04	FY05	FY06	FY07	FY08 (March)
Assets of Islamic Banks	12,915	44,143	71,493	119,294	205,212	200,415
Deposits of Islamic Bank	8,397	30,185	49,932	83,840	146,945	141,933
Share in Bank Assets	0.50%	1.40%	2.10%	2.90%	4.20%	4.10%

Source: Economic Survey of Pakistan, 2007-08

Decision Making Styles of Managers in Pakistan:

Role of Management Status and Organization Sector

Listed in ULRICH'S

ULRICH'S
PERIODICALS DIRECTORY™**Rana Rashid Rehman**

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Abstract

The aim of this study is to identify the decision making styles of managers in Pakistan. The study also investigates the degree of difference of management status and organizational sector based on decision making styles. Questionnaire method is used to collect data from 223 managers from different organizations. Major organizational sectors include telecommunication, banking, pharmaceutical and education. First, dependent and, second, rational decision making style are found to be most preferred decision making styles of managers in Pakistan. While avoidant decision making style is the least preferred style of Pakistani managers. Study also determines that decision making styles of managers changes according to the organizational sector and status of managers.

Keywords: Decision making styles, Pakistani managers, Organizational sector, Management status

1. Introduction

Life is full of choices at every step; a person has number of opportunities from which he has to choose based on his judgment. Similarly, management is not just about taking care of business but, it can be applied to every sphere of life. In business, decision making has its utmost importance. The fate of every business depends upon the decision making ability of business leadership. Every decision made by the management of a business affects the overall business performance. Thus decision making can be considered as think tank of any organization. The globalization of business poses new challenges for managers and organizations. Due to the rapid technological and market changes, the business world has become progressively more volatile and competitive for businesses. Managers are challenged not only to operate professionally in the present but forced to innovate effectively for their continued existence. To face these new challenges, many researchers and academicians have shared their expertise to help existing and future managers by focusing more on formulating managerial approaches that will improve organizational effectiveness and consequently competitiveness in today's business environment. Therefore, decision making is one of the areas which require attention in the context of Pakistan as decision making styles explain the manager leadership attributes as well as the problem solving capacity of manager (Rowe, Mason & Dickel, 1986). The aim of the present study is to identify the decision making styles of Pakistani managers. Study also investigates the degree of difference among managerial status and organizational sectors based on decision making styles.

2. Literature Review

Decision making is an essential part of management in every organization and at every managerial level. Decision making style can be defined as the difference between individuals with respect to their orientation towards decisions (Greenberg, 1988). Decision making styles explain the manager leadership attributes as well as the problem solving capacity of manager (Rowe et al., 1986). A comprehensive or synoptic model of decision making provide evidences regarding the decision making styles (Anderson, 1983). According to this model, actors involve in decision situation with identifiable objectives which defines the actor course of action. The actors develop alternatives by gathering information and finally adopt the optimal alternative. (Anderson, 1983; Nutt, 1984). Rowe (1986) determines that decision making style selection depends upon the manager personality. Authors categorize managers as flexible and inflexible personality and argue that flexible managers, make decisions according to the situation while inflexible managers have rigid decision making styles. Rowe et al. (1986) defines decision making styles in four categories which include behavioral (dependant), conceptual (rational), analytical and directive (spontaneous) decision making styles. He argues that individuals with behavioral style used more supportive information and tend to be more open towards suggestions from other people. People with conceptual decision making style are the rational decision makers while people having directive decision making style try to take quick decision by considering few information (Rowe et al., 1986).

In provisos of decision-making, there is growing consensus that a good decision maker is not only a person who can rationally evaluate choices, or make the most logical decision given for that minute, but someone who can arrive at a decision through harmonizing competing values and goals (Hartmann & Patrickson, 1998; Cohen, 1993). Many studies have been conducted on decision making styles in non-western countries such as Saudi Arabia, Iran, Kuwait, Arab emirates and Tunisia. However, no such type of study is conducted in Pakistan so; this study aims to address this gap in the literature. A study on decision making styles in Saudi Arabia finds that Saudi managers prefer to use more consultive and participative decision making styles and least preferred delegative decision making style (Boussif, 2010). Similarly, a study conducted on decision making styles in Iran, Kuwait and Arab Emirates finds that managers in these countries use consultive decision making styles more preferably as compare to other decision making styles and least preferred delegative decision making styles. This indicates that these managers are rational decision makers because rational decision cannot be taken in haste and require time (Spice & sadler 2005). According to the findings in these countries, manager's least preferred delegative decision making style which means managers not make quick or impulsive decisions. Major findings of these studies are depicted in Table I. One of the studies by Boussif (2010) determines that the managers in Tunisia follow the same pattern of decision making styles as in other non-western countries.

[Insert Table I]

Since, there is no collectively accepted model of decision making style, for that reason the model of decision making styles made by Scott and Bruce (1995) used in this study. Authors define that a person get involved in the decision making process by employing any of the following decision making styles (DMS). (1) Rational DMS – is recognized by use of reasoning and logical approach to decision making. (2) Intuitive DMS – is defined by reliance upon hunches, gut

feeling and instinct experience. (3) Dependent DMS – is attributed by receiving support of others people prior to making a decision. (4) Avoidant DMS– is characterized by postponing, withdrawing and negating the decision scenarios. (5) Spontaneous DMS – is attributed by making quick, rapid and impulsive decision.

A number of studies have also explored the variables that influence the adoption of particular decision making styles. Ali (1989) and Blyton (1982) determine that individual characteristics and pattern of organization influence the decision making styles of the individual. Hofstede (1980) believe that cultural background have an effect on the decision styles. Burger and Bass (1979) and Wright (1981) also determine that Management decision styles vary from culture to culture. Heller and Yukl (1969) found decision behavior to be related to managerial levels. One of the study by Ali (1989) founds that decision styles differ significantly by sector of enterprise, type of industry, age of manager, social class and management function. Ali and Ali-shakis (1985) and Goodale (1973) also argue that sector and size of organization and management level influence the decision making styles.

Based on the above literature the present study investigates the decision making styles of managers in Pakistan. Study also investigates the effect of management status and organizational sector on decision making styles.

3. Methodology

The basic goal of the present study is to investigate the preference to decision making styles of Pakistani managers. Besides this basic aim, two hypotheses are formed based on the literature concerning the factors influencing the decision making styles.

H1. There is significant difference between management Status and preferred decision making styles of managers.

H2. There is significant difference between organization sector and preferred decision making styles of managers.

3.1 Sample

The research for this study is conducted in the cities having dynamic organizational life like Lahore, Islamabad, Gujranwala and Sialkot. Data is collected on convenience sampling basis from the 223 managers. We cannot claim that the sample represent the whole Pakistani managers however the sample reasonably represent that how Pakistani managers make decisions in organizations? The demographic characteristics of managers are depicted in Table II.

[Insert Table II]

3.2 Measures and Procedures

Respondent's decision making styles were accessed using the decision making style questionnaire developed by Bass and Avolio (2000). The instrument is composed of 25-items including five items for each style which measure rational, intuitive, dependent, spontaneous and avoidant decision making styles. Responses are obtained on five point likert scale ranging from strongly disagree to strongly agree. A total of 400 questionnaire were distributed from which 223 useful questionnaire were received back with the response rate of 56%. Self administered questionnaire are used to collect data from 223 respondents to further ensure the reliability of the data.

3.3 Statistical Analysis

Statistical package SPSS 15 is used to process and analyze the data. To analyze goodness of measure, responses to items subjected to factor analysis by using principal component method. Factor loading is examined using varimax rotated component matrix. Initially rotated factor analysis provides seven factor solution. However, for analysis purpose the factor to retained in the final scale meet the two criteria; first, the Eigen value for each extracted variable should be greater than one and secondly, items must be 0.50 on one factor and less than 0.35 in other factors (Hair et al., 1998). The extracted factors than subjected to final analysis with 5 items each for dependent and avoidant scales, four for intuitive and three items each for rational and spontaneous decision making scales. The overall cronbach's reliability of the 20-items scale is 0.819. Five factors explain 65% variances of the total 20-items. The factor analysis of the decision making styles scale is depicted in Table III.

[Insert table III]

4. Results

[Insert Table IV]

As we can see from Table IV, Pakistani managers are most likely to choose dependent DMS (M= 3.27) at first, rational DMS at second and intuitive DMS as third preferred decision making style. Spontaneous and avoidant DMS are least used styles of Pakistani managers. The difference among the means of these decision making styles are tested using paired t-test. Because we are analyzing the multiple comparisons, therefore paired t-test is possible. Analysis found that Dependent DMS is significantly preferred over rational DMS, $t(222) = 2.22$, $p = 0.027$; rational DMS is preferred over intuitive DMS, $t(222) = 3.09$, $p = .002$; intuitive DMS is not significantly preferred over spontaneous DMS, $t(222) = .894$, $p = .370$ and spontaneous DMS is preferred over avoidant DMS, $t(222) = 2.22$, $p = .0279$.

To analyze H1, independent t-test is used. Analysis found that middle level managers (M= 30.15) use avoidant decision making style more preferably than low level managers (M= 28.16) and entire test is statistically significant as shown in table V. All other tests of difference of mean are not statistically significant. Figure 1 depicts the difference between mean of middle and low level managers based on avoidant decision making style. Results partly support the H1 hypothesis.

[Insert Table V]

[Insert Figure 1]

Independent t-test analysis is used to analyze H2. There was statistically significant difference between telecommunication and banking sector managers based on rational decision making style. As we can see from table VI, banking sector managers (M= 3.26) more preferably used rational decision making style than telecommunication sector managers (M = 2.94). Study found that education sector managers (M= 3.48) used intuitive DMS more preferably than banking sector managers (M= 3.10) and banking sector managers used intuitive DMS more preferably than telecommunication sector managers (M= 2.53). Analysis further found that education sector managers (M= 3.52) used dependent decision making style more preferably than banking sector

managers ($M= 3.19$). The entire tests of difference of means shown in table VI are statistically significant as $p < 0.05$ in all cases. Results partly support the H2.

[Insert Table VI]

5. Discussion and Conclusion

The present study examines the preferred decision making styles of managers in Pakistan. Study found that dependent and rational decision making styles are the most preferred decision making styles of the Pakistani managers. Intuitive decision making style is a third preferred style of managers while, avoidant and spontaneous decision making styles are least preferred styles of managers in Pakistan. The current findings are in line with various studies conducted in non-western countries like Saudi Arabia, Iran and Kuwait that the managers adopt dependent decision making style more preferably than other decision making styles and dependent decision making style consider as a most effective decision making style (Boussif, 2010). Study also determines that middle level managers use avoidant decision making style more preferably than low level managers. The findings are in line with the findings made by Heller and Yulk (1969) that managers decision making styles changes according to management status. Many researchers (Heller & yulk, 1969; Ali & Ali-shakis, 1985; Goodale, 1973) found that decision making styles influenced by organization sector. Present research further finds that banking sector managers use more rational decision making style than telecommunication sector managers. Intuitive decision making style at first, more preferably used by education sector managers, second preferred by banking managers and third, by telecommunication sector managers. While dependent decision making style is more preferably used by education sector managers than banking sector managers.

6. Contribution of the study

The contribution of this study is to increase our understanding and capability to predict types of decision-making styles in Pakistani settings. This in turn would enhance our understanding of management philosophy and practices across country. More specifically, this would be beneficial to multi-cultural corporations thinking of doing business in Pakistan in a way that they require to adopt the suitable decision-making style so that profitability and productivity of the organization could be improved. For instance, the dependent style is the most preferred decision-making style in Pakistani setting, and therefore, this fact should be considered so that organizational objectives could be achieved more efficiently.

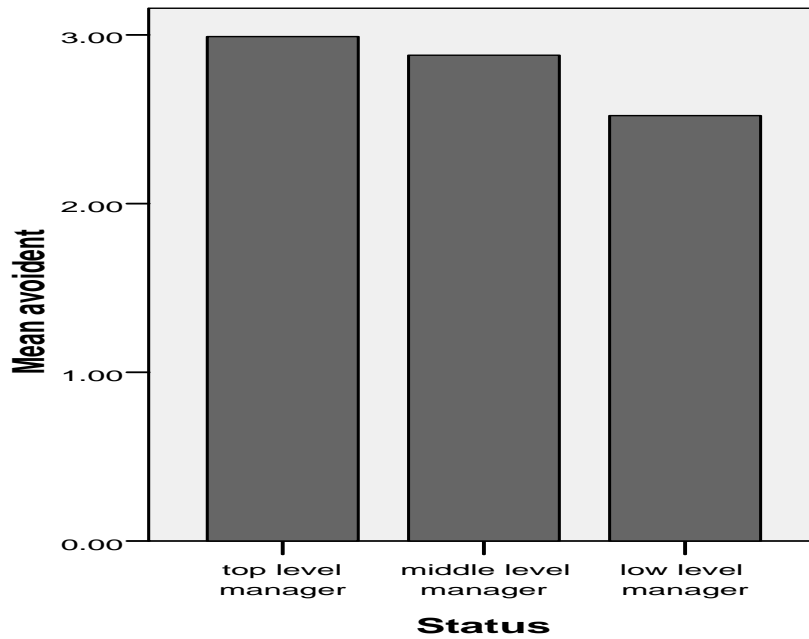
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Annexure

Figure 1: Difference of Management Status based on Avoidant Decision Making



Style

Table II: Decision Making Styles of Managers in Non-Western Countries.

DMS	Saudi Arabia	Iran	Kuwait	Arab Emirates	Tunisia
Autocratic	11	3.3	2	3	5.6
Consultive (dependent)	39	54.9	34	36	37.7
Participative (non-avoidant)	20	20.9	18	21	10.7
Delegative	2	4.6	4	3	10.3

Note. Quoted from Boussif (2010)

Table III: Demographic Characteristics of the Respondents.

Characteristics	Managers (N = 223)	%
Gender		
Male	132	59.2
Female	91	40.8
Age		
Up till 24	33	14.8
25-29	83	37.2
30-34	44	19.7
35-39	41	18.4
40-44	13	5.8
45-49	3	1.3
50 and above	6	2.7
Status		
Top level manager	58	26
Middle level manager	63	28.3
Low level manager	102	45.7
Sector		
Pharmaceutical	23	10.3
Banking	58	26
Telecommunication	85	38.1
Education	38	17
Others	19	8.5

Table IV: Factor Analysis of the Decision Making Styles Scale

Decision Making Styles Scale	Component				
	^a ADMS	^b DDMS	^c IDMS	^d RDMS	^e SDMS
1. I double check my information sources to be sure.	.125	.096	.014	.853	.160
2. I have the right facts before making decisions.	.087	.199	.102	.805	.182
3. I make decisions in logical and systematic way.	-.006	.289	.220	.650	-.014
4. When making a decision, I rely upon my instincts.	-.155	.035	.732	-.026	-.024
5. When I make decisions, I tend to rely on intuition.	.012	.143	.614	.088	.081
6. I generally make decisions that feel right to me.	.085	.044	.703	.055	.215
7. When I make decision, it is.....rational reason for it.	.080	.071	.650	.195	.160
8. I often need the assistance of other people when make important decision.	.063	.869	-.058	.088	.134

9. I rarely make important decisions without consulting other people.	.030	.732	.211	.046	.264
10. If I have the support of others, it is easier for me to make important decisions.	.063	.866	-.072	.089	.126
11. I use the advice of other people in making my important decisions.	-.015	.676	.150	.285	-.114
12. I like to have someone steer me.....important decisions.	.060	.594	.219	.166	-.022
13. I avoid making important decisions.	.777	.097	.061	.057	.028
14. I postpone decision making whenever possible.	.663	.095	.101	.049	.099
15. I generally make important decisions at the last minute.	.978	-.005	-.060	.042	-.027
16. I often postpone when it comes to making important decisions.	.978	-.005	-.060	.042	-.027
17. I put off making many decisions because thinking about them makes me uneasy.	.978	-.005	-.060	.042	-.027
18. I generally make sudden decisions.	.011	.040	.186	.020	.821
19. I make quick decisions.	-.035	-.006	.118	.218	.684
20. When making decision, I do what seems natural at the movement.	.064	.232	.074	.052	.623

^aAvoidant decision making style, ^bdependent decision making style, ^cIntuitive decision making style, ^dRational decision making style, ^eSpontaneous decision making style

Table V: Descriptive Statistics of Decision Making Styles

	M	SD
Dependent DMS ^a	3.27	0.82
Rational DMS	3.14	0.78
Intuitive DMS	2.96	0.61
Spontaneous DMS	2.91	0.80
Avoidant DMS	2.74	0.84

^aDecision making style

Table VI: T-test of Difference between Management Status Based on Avoidant Decision Making Style

Status	N	Mean	SD	df	t	p
	63	30.1579	0.91	163	2.749	.007
• Middle level manager	102	28.1647	0.73			
• Low level manager						

Table VII: T-test of Difference among Organizational Sector Based on Decision Making Styles.

	N	Mean	SD	df	t	p
Rational						
• Telecommunication	58	2.94	.82	141	2.5	.013
• Banking	85	3.26	.68			
Intuitive						
• Telecommunication	58	2.53	.35	141	7.049	.000
• Banking	85	3.10	.53			
Intuitive						
• Banking	85	3.10	.53	121	3.7	.000
• Education	38	3.48	.45			
Dependent						
• Banking	85	3.19	.80	121	2.00	.048
• Education	38	3.52	.97			

Relationship between Service Quality and Performance of Islamic Banks in Pakistan

Listed in ULRICH'S

ULRICH'S
PERIODICALS DIRECTORY

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Abstract

Banking industry is growing across the globe due to increasing competition among bankers to provide superior services for better performance. Pakistani banking sector also experienced an expansion after financial liberalization during 1990s. Similarly, inception of Islamic banking opened new avenues to generate more profits. In Pakistan, the first Islamic bank was registered in 2002 with the name of Meezan Islamic bank. This study investigates the relationship between service quality and performance of Islamic banks in Pakistan. The researcher collected data from 864 respondents of 72 branches of selected Islamic banks. The data were collected by a structured questionnaire developed in the light of existing literature. The responses were analyzed through SPSS 15.0 Version. The relationship between service quality and performance of Islamic banks was assessed by Pearson's correlation and regression analysis. The results indicate that there is a weak positive relationship between service quality and performance of Islamic banks. Bankers should improve their services by blending of traditional facilities and modern technology to meet customers' expectation for better performance in future. Bankers should patch up the service quality towards better performance of the banks especially in case of Islamic banks to gain substantial benefits.

Keywords: Performance, Service Quality, Islamic bank, Pakistan

1. Introduction

Banking industry is growing across the globe due to increasing competition among bankers to provide superior services for better performance. Pakistani banking sector also experienced an expansion after financial liberalization during 1990s. Similarly, inception of Islamic banking opened new avenues to generate more profits. In Pakistan, the first Islamic bank was registered in 2002 with the name of Meezan Islamic bank. It inspired the local and foreign investor to start full fledged Islamic banks in Pakistan that resulted into establishment of the six Islamic banks. The increased volume and number of banks leads to stiff competition among banks to offer better service quality for the successful survival in the market. There are a number of studies that investigated the different aspects of the banks across the globe but there is an acute shortage of

studies that examined the Islamic banks. Service quality offered by service firms especially for banks is important due to an increasing competition. Similarly, performance evaluation of service firms is also inevitable in the recent age. Banking sector has no exception from the performance evaluation and they require a sound mechanism to assess their success or failure after specific duration. It is reported that the total number of branches as well as volume of banking assets has been increasing in Pakistan (Economic Survey of Pakistan, 2007-08).

This study investigates the relationship between service quality and performance of Islamic banks in Pakistan. It enables the researcher to fill this gap in the existing literature. The existence of conventional banks posed a number challenges for Islamic banks to penetrate in the Pakistani banking industry. Banks make heavy investment to attract larger number of customers. But they are unable to track the consequences of their service related efforts. Similarly, this study is also important to find out the net result of bankers' efforts in terms of its performance. The relationship between selected variables was investigated by collecting primary data from respondents of selected banks. This study is an effort to correlate service quality with performance of Islamic banks in Pakistan to record its progress. It is found that performance of Pakistani banks has improved due to reforms in the banking sector (Farooq et al., 2010). Similarly, it is reported that customer of Islamic banks have greater service quality scores as compared to conventional banks in Pakistan (Ahmad, Rehman & Saif, 2010).

2. Literature Review

Islamic banks showed an excellent performance during last years. Islamic banks attracted a larger number of customers by offering a variety of products according to customers' expectations. It is reported that banking and financial services are the integral part of services industry and its contribution is increasing with the passage of time (Mishkin, 2001). However, expansion of global and integrated banking sector has to face many challenges of legislation, technological and structural changes (Angur et al. 1999). Islamic banking practices result a notable increase in the supply of loans. It is found that government intervention played an important role to manage funds besides other economic factors in the economy (Makiyan, 2003). Islamic banks have shown an excellent growth rate of 114% per annum. The increasing number and size of Islamic banks is also a positive sign of development and success. There are six full-fledged Islamic banks working in different cities of Pakistan and 13 conventional banks have started partial Islamic banking practices by establishing a large number of branches exclusively engaged in Islamic banking practices (SBP, 2006).

Gronroos (1982) investigated the service quality in the banking sector and explored three dimensions of it. Similarly, ten dimensions of service quality were found and finally summarized into five dimensions in term of SERVQUAL instrument (Parasuraman et al., 1985; 1988; 1991). Service is the combination of benefits delivered from a service provider to the service user. Banks provide financial inter-mediation, consultancy and agency services that are diversified with the passage of time. Quality is an ability of any product to meet customers' expectations. Service quality helps to gain competitive advantage for long-term customer relationship (Zeithmal et al. 2000). Then service quality was linked with satisfaction of bank customer to assess the magnitude of the relationship (Sureshchander et al., 2002). Islamic banks are striving to capture the maximum number of customers to compete with conventional banks by providing a large number of products as an alternative for interest based products. It is suggested that managers should consider important elements of service quality to develop strategies for quality improvement (Hung et al., 2003).

Banks have realized the importance of service quality for successful survival in today's global and highly competitive environment (Wang et al. 2003). Service quality and customer satisfaction could be associated with better performance especially in the banking industry. But there is shortage of studies in the literature regarding service quality, customer satisfaction and bank performance especially with reference to Pakistan. Performance evaluation became crucial for the successful survival of the business organization especially in the banking sector due to competition and customers' awareness of service quality. Islamic banks also require performance evaluation to compete with conventional banks in Pakistan. Service firms like banks are continuously evaluating their performance to cope with the challenge of recent age. It is reported that banks could capture the added demand by quality investments when market size grows due to increased barriers to entry (Dick, 2007). Similarly, Islamic banks are providing better service quality as compared to conventional banks in Pakistan according to customers' perception (Ahmad et al., 2010). On the basis of existing literature it is hypothesized that there is positive relationship between service quality and bank performance.

H1: There is a significant positive relationship between service quality and performance of the Islamic banks in Pakistan.

3. Methodology

This study examines the relationship between service quality and performance of Islamic banks in Pakistan. The data was collected from a sample of 72 branches to collect data from 864 respondents of six full fledged Islamic banks operation in Pakistan. The data was collected through simple random sampling to gather the responses from the 12 most populous cities of Pakistan from four provinces and capital territory. Service quality is measured by a modified version of SERVQUAL developed by Parasuraman et al. (1991). While bank performance was recorded by a modified version of an eight-item research instrument developed by Quinn & Rohrbaugh, (1983). The responses were recorded regarding service quality and bank performance by considering different aspects. Data was collected by self administrative questionnaire through personal contact approach. Every respondent was asked to rank a number of aspects regarding service quality and performance of Islamic banks in Pakistan.

4. Results and Discussion

The study investigates the influence of service quality towards performance of Islamic banks in Pakistan by collecting responses from a sample of 864 respondents of 72 branches of selected banks. Data was analyzed by SPSS 15.0 version by application of Pearson's correlation and regression model. The relationship between service quality and bank performance is assessed by Pearson's correlation while the magnitude of the relationship was assessed by regression analysis. The results show that male customers are greater than female customers that were using products/services of selected banks working in Pakistan. It is consistent with literature as men and women customers using bank products/services could be differentiated due to social, cultural, and religious factors. It is evident that male customers perform more banking activities than female customers (Alsop, 1984; Woldie & Adersua, 2004).

[Insert Table 1]

Table 1 indicates a weak positive relationship between service quality and bank performance. The results are in line with the hypothesis as there is a positive relationship between service

quality and performance of Islamic banks working in Pakistan. However, the magnitude of the relationship is assessed by regression model. The results of regression are presented in table 2.

[Insert Table 2]

Table 2 shows output of service quality and bank performance model. The coefficient of determination is 0.002, p-value (0.729) and F-statistics (0.121). It reflects variation (influence) of service quality on the performance of Islamic banks in Pakistan. The estimated regression model is Performance of Islamic bank = 3.835 + 0.026 service quality. It indicates that service quality has no significant ($p=0.729$) impact on performance of Islamic banks in Pakistan. The results are consistent with the literature as positive relationship between service quality and organizational performance parameters is reported (Chapman et al., 1997). Similarly, a positive relationship is found between service quality and financial performance of banks (Duncan & Elliot, 2004). In another study, findings showed that service quality has a positive impact on bank performance (Akroush, 2008).

5. Conclusion

This study examines the relationship between service quality and performance of Islamic banks working in Pakistan. Islamic banks are new entrants in the Pakistan banking sector as they started their functions in 2002 and onwards. Islamic banks have to face many challenges from conventional banks as well from its peers. The researcher collected data from 864 respondents of 72 branches of selected Islamic banks. The data were collected by a structured questionnaire developed in the light of existing literature. The responses were analyzed through SPSS 15.0 Version. The relationship between service quality and performance of Islamic banks was assessed by Pearson's correlation and regression analysis. The results indicate that there is a weak positive relationship between service quality and performance of Islamic banks.

Bankers should introduce new, diversified and marketable products to meet requirements of different segments of the economy as weak relationship between service quality and bank performance is identified in this study. Bankers should improve their services by blending of traditional facilities and modern technology to meet customers' expectation for better performance in future. Bankers should patch up the service quality towards better performance of the banks especially in case of Islamic banks to gain substantial benefits.

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Annexure

Table 1: Summary of Correlation between Service Quality and Performance of Islamic Banks

Variables	Pearson Correlation	Sig. (2-tailed)
Service Quality and Bank Performance	0.041	0.729

Table 2: Summary of the Service Quality and Bank Performance Linear Regression Model (Coefficients, Standard Error in Parenthesis, t-values in Brackets and p-values in italics)

Constant	IBSQL	R ²	F-Statistics
3.835 (0.396) [9.676] <i>0.000</i>	0.026 (0.074) [0.347] <i>0.729</i>	0.002	0.121

Predictor (Constant), Service Quality

Dependent Variable: Performance of Islamic bank

Relationship of Organizational Commitment, Job Satisfaction and Layoff Survivor's Productivity

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Abstract

The study explores the factors effecting layoff survivor's productivity in a telecommunication company, in Pakistan with a 38.5% response rate. This cross – sectional study examines the relationship of affective commitment, continuance commitment and normative commitment with the overall commitment of the layoff survivors. It also examines the relationship of facets of job satisfaction such as pay satisfaction, job authority and working conditions with overall job satisfaction. Finally the relationship of overall organizational commitment and overall job satisfaction with layoff survivor's productivity has been tested. The analysis reveals that all the three facets of organizational commitment are the strong predictors of overall organizational commitment of layoff survivors. Similarly pay satisfaction and job authority are the strong predictors of overall job satisfaction. Moreover job satisfaction is found to be a stronger predictor of layoff survivor's productivity as compared to organizational commitment. The results are discussed in the light of previous studies.

Key words: Organizational Commitment, Job Satisfaction, Employee Productivity, Layoff Survivors, Pakistan.

1. Introduction

Organizations strive to maximize productivity. One way to achieve this is to find out and maintain high performing, committed and satisfied employees. Ju et al., (2008) suggested that the employers should provide the employee benefits to strengthen the organizational commitment that in turn increases employee productivity and job performance (Alam, et al, 2010)..

Different Human Resource Management (HRM) Practices effect productivity differently. Bartel, (1994) highlighted a link between the adoption of training programs and productivity. Links

between incentive compensation systems and productivity have also been found (Gerhart & Milkovich, 1992).

Researches have been conducted on the issues relating to job satisfaction (Ju, Kong, Hussin, & Jusoff, 2008; Fatt, Khin, & Heng, 2010; Al-Aameri, 2000) and have explored different relationships but very little have explored the relationship with layoff survivor's productivity. Similarly many researchers have explored the area of organizational commitment (Ugboro, 2006; Bhatti, & Qureshi, 2007) but hardly any evidence is available regarding relationship of employee commitment and layoff survivor's productivity.

The current study adds to the literature by testing the model of factors effecting layoff survivors productivity in a developing country. Layoff survivors are the outcome of the organizational restructuring. Pakistan Telecommunication Company Limited (PTCL) has undergone the process of downsizing by offering the employees Voluntary Separation Scheme (VSS). PTCL is the largest telecommunication company having monopoly in providing the land line services to the Pakistani nation. The employees who have not opted for the VSS remained with the organization and are known as layoff survivors. Layoff survivors, as a part of downsizing process, have to face certain challenges one of which is productivity. This is an important oversight that has to be researched because layoff survivors have to face exacerbation of work overload (Fong & Kleiner 2004). This workload can lead to work life conflict that ultimately effect employee performance in the form of turnover and absenteeism (Kossek & Ozeki, 1998). In this scenario the layoff survivors have to be taken care off by the organizations and organizations should try to keep their employees satisfied and committed to attain maximum productivity. The current study try to examine the relationship of organizational commitment and job satisfaction with layoff survivors productivity.

The aim of the study is to examine the relationship of overall organizational commitment of layoff survivors and overall job satisfaction of layoff survivors with the productivity. For this reason the researchers carried out the regression analysis, which is generally used to examine the relationship of the variables (Gaur & Gaur, 2006; Sekaran, 2008). Pearson's correlation coefficients indicates the strength of relationship between the variables but it does not provide the information of how much of the variance in the dependent/ criterion variable is explained by the independent variables (Sekaran, 2008). Keeping in mind the said reasons the researchers employed the multiple regression analysis for the current analysis.

2. Literature review

Despite the large number of research studies on job satisfaction, organizational commitment and employee productivity none of the studies have explored the relationship of the three variables at the same time. Lingard & Sublet, (2002) explored the effect of job and organizational demands. Moyniohan & Pandey (2007) examined the effect of individual attributes, job characteristics, and organizational variables on three aspects of work motivation such as job satisfaction, organizational commitment, and job involvement. Hancer & George (2003) examined job satisfaction of restaurant employees working in non- supervisory positions. Alqashan and Alzubi (2009) have measured the job satisfaction level among counselors working at a stress center in the Social Development Office (SDO) in Kuwait and there are many other studies are available relating to the same field.

Perry (2004) who examined the relationship of employee trust in direct supervisors with affective commitment to the organization Reid et al., (2008) assessed the effects of psychosocial and career mentoring, leader-member exchange (LMX), and gender on the affective organizational commitment (AOC) of information technology (IT) employees in United States. Pittinsky and Shih (2004) examined enhancing of an organizational commitment. Wen and Lin, (1989) addressed the effects of internet access on employee productivity. Yu and Park, (2006) explored the effect of downsizing on profitability, efficiency and employee productivity.

Organizational commitment and job satisfaction of employees are the two main factors that effect employee productivity in the organizations. Pritchard (1992) explained productivity as a blend of efficiency and effectiveness that is the quality of resources used and the achievement of targets by using the same resources. Satisfied employees tend to be more productive, creative, and committed to their employers (Al-Aameri, 2000). Riggio (2003) defines job satisfaction as consisting of the feelings and attitudes one has about one's job including all aspects of a particular job, good and bad, positive and negative, which are likely to contribute to the development of feelings of satisfaction or dissatisfaction. The more pleasure an employee gets in working it shows greater employee satisfaction. Employee satisfaction refers to the degree to which the working environment meets the wishes and the needs of the employees. It can relate to the work itself such as, content, complexity, required knowledge and skills, degree of autonomy, the social working environment such as, colleagues, management style, conditions of employment such as salary, leave arrangement, and career prospects, the physical working environment such as, workplace, lighting, daylight, view etc); and interactions between these aspects (Voordt, 2004). Organizational commitment is the degree to which an employee is dedicated and loyal to his/her organization (Spector, 2003).

When an organization is experiencing organizational change, such as, re-structuring, downsizing, or merging, it will cause employees the feelings of anxiety, stress, and insecurity, and resulting impact on employees' productivity, satisfaction, and commitment toward the organization (Ashford, et. al., 1989).

Research has shown an important link between organizational commitment and productivity. Ugboro, (2006) provided evidence that both job redesign and employee empowerment that enhance survivors' sense of impact and job meaningfulness can facilitate survivors' affective commitment and reduce the intent to quit. If survivors' affective commitment is enhanced it can be expected that it would positively reflect on morale, sense of job security and productivity.

AL-Hussami, (2008) tested a relationship of job satisfaction and organizational commitment among nurses and found that both the variables were significantly related. Bhatti, & Qureshi, (2007) found out that there is a positive relationship of job satisfaction with employee participation, employee commitment and employee productivity. Mishra, Spreitzer and Mishra (1998) found that high potential survivors, having attractive employment alternatives, are more likely to leave the uncertainties of a downsizing environment for better job opportunities elsewhere.

Layoff survivors are the people really taken care of by the organization. The organizational operations are dependent on their availability and comfortable working. Isabella (1989) noted that while organizations are usually prepared to meet the needs of those being laid off, they are often unprepared for the strong emotions, lengthy adjustment period, diminished morale and lower productivity often experienced and expressed by survivors.

Lyubomirsky, King, and Diener (2005) found that happy people are more sociable, generous, creative, active, tolerant, healthy, altruistic, economically productive, and long-lived.

For the layoff survivors to be productive it is necessary that they should be provided with the optimal facilities by the organization. Politis (2005) states that for employee to be creative, it is necessary that the organization provide a supportive process and environment.

Dissatisfied employee experience stress and job stress is considered rising and has become challenge for the employer and because high level stress results in low productivity, increased absenteeism and collection to other employee problems like alcoholism, drug abuse, hypertension and host of cardiovascular problems (Meneze 2005). Employees are more loyal and productive when they are satisfied (Hunter & Tietyen, 1997), and these satisfied employees affect the customer satisfaction as well as organizational productivity (Potterfield, 1999).

Voordt, (2004) noted that the availability of advanced information and communication technology, etc. will lead to a more efficient use of space and other facilities (input) and a better performance of the organization and its employees (output). Satisfied employees will work more willingly and contributes to the effectiveness of their organizations (Aydin, & Ceylan, 2009).

It is sure that there may be many factors affecting the organizational effectiveness and one of these is the employee satisfaction. Effective organizations should have a culture that encourages the employee satisfaction (Bhatti & Qureshi, 2007).

3. Conceptual Framework

The conceptual framework undertakes the presentation of the model to be tested in the light of available literature.

[Insert figure 1]

4. Hypothesis

Based on the above review a number of hypotheses have been developed for testing. The hypothesis are

H1: Affective commitment has a strong relationship with overall organizational commitment of layoff survivors.

H2: Continuance commitment has a strong relationship with overall organizational commitment of layoff survivors.

H3: Normative commitment has a strong relationship with overall organizational commitment of layoff survivors.

H4: Pay satisfaction of layoff survivors has a strong relationship with overall job satisfaction of layoff survivors.

H5: Job authority of layoff survivors has a strong relationship with overall job satisfaction of layoff survivors.

H6: Working conditions have a strong relationship with overall job satisfaction of layoff survivors.

H7: Overall organizational commitment has a positive relationship with productivity of layoff survivors.

H8: Overall job satisfaction has a positive relationship with productivity of layoff survivors.

5. Methodology

The sample size, sampling method, data collection method and measures used for the study are discussed in this section.

5.1 Sample

Sample of 212 was drawn from the 550 layoff survivors (response rate 38.5%) working with a Pakistani telecommunication company that is Pakistan Telecommunication Company of Pakistan (PTCL). For a cross – sectional study a non – probability random sampling was used. Most of the sample consisted of male layoff survivors.

5.2 Instruments used

All the responses were assessed on a five point Likert type scale ranging from 1 = ‘strongly disagree’ to 5 = ‘strongly agree’. At first place organizational commitment and job satisfaction played a role of dependent variables for a set of affective commitment, continuance commitment, normative commitment and pay satisfaction, job autonomy and working conditions respectively. Secondly the employee productivity was considered as dependent variable and organizational commitment and job satisfaction played the role of independent variables. The reliability was confirmed through Cronbach’s alpha, which resulted in satisfactory limits. Table 1 shows the details of source, the number of items and the reliability of the scales.

[Insert table 1]

5.3 Procedure

Questionnaires were distributed and were collected by visiting the offices at Rawalpindi and Islamabad. For maximum responses e – mail was used. Likewise, different statistical tests were applied including regression analysis and Pearson’s correlation. The process of data collection took more than a month to analyze.

6. Results

The relationship of the affective commitment, continuance commitment and normative commitment with overall organizational commitment was tested by applying Pearson’s correlation. Table 2 depicts the relationship.

[Insert table 2]

The results show that affective commitment, continuance commitment and normative commitment of layoff survivors are the strong and significant predictors of overall organizational commitment (0.927, 0.000; 0.845, 0.000 and 0.606, 0.000 respectively. The results provide

evidence that affective commitment that is the emotional attachment to the organization, continuance commitment that is remaining with an organization because there is no other option to avail and normative commitment that is the compulsion on employees to remain with the organization has a positive and strong relationship with overall organizational commitment of layoff survivors. More over affective commitment has weaker but significant relationship with continuance commitment (0.400, 0.000), and has strong significant relationship with normative commitment (0.777, 0.000), whereas continuance commitment has weaker and significant relationship with normative commitment (0.163, 0.018).

Table 3 shows the correlation between the overall job satisfaction and its facets.

[Insert table 3]

The results show that satisfaction with pay and job authority are the strong predictor of overall satisfaction of layoff survivors (0.776, 0.000 and 0.725, 0.000) respectively. Work conditions have a very weak and non - significant relationship with overall job satisfaction (0.032, 0.639). The results provide evidence that layoff survivors give more value to pay and authority as compared to the work conditions.

Table 4 shows the relationship of dependent variable that is layoff survivor's productivity and independent variables that are organizational commitment and job satisfaction.

[Insert table 4]

The results show that Overall organizational commitment has a strong and significant relationship with overall job satisfaction of layoff survivors (0.706, 0.000) and has moderate significant relationship with layoff survivor's productivity (0.510, 0.000). Overall job satisfaction has a strong significant positive relationship with layoff survivor's productivity (0.757, 0.000). This shows that job satisfaction is the stronger predictor of employee productivity as compared to organizational commitment.

Table 5 shows the results of the relationship, by applying regression analysis, of dependent and independent variables.

[Insert table 5]

The results of multiple regression analysis confirmed the relationship between the dependent variable and the independent variables. Productivity of layoff survivors played a role of dependent variable whereas organizational commitment and job satisfaction played a role of independent variables. The results show that overall organizational commitment (0.603, $P = 0.002$) and job satisfaction (0.641, $P = 0.000$) have significant strong positive relationship with productivity of layoff survivors. The reasonably high value of R^2 (0.690) shows variance of dependent variable being explained by independent variables. The value of F - statistic (150.365) shows the overall significance of the relationship. The high and statistically significant value of F - statistic confirms the fitness of the model. The value of R (0.830) shows the strong relationship between the dependent and the independent variables. The R^2 shows that the independent

variables that are overall organizational commitment and overall job satisfaction are responsible for 83.0% variation in the layoff survivors' productivity. The results show that organizational commitment and job satisfaction are the factors effecting productivity among layoff survivors.

7. Conclusion and Discussion

The results of the study show that all the facets of organizational commitment are the strong predictors of overall organizational commitment of layoff survivors (Hypothesis 1, 2 and 3 upheld). Moreover layoff survivors value pay and authority more as compared to work conditions. The pay and authority are the strong predictors of overall job satisfaction of layoff survivors in Pakistan as compared to the environment in which they work (Hypothesis 4 and 5 upheld).

Overall organizational commitment and overall job satisfaction are revealed to be the strong predictors of layoff survivor's productivity (Hypothesis 7 and 8 upheld). The results show that all the hypothesis were upheld except hypothesis 6 and are consistent with previous research studies (e.g. Al-Aameri, 2000; Ugboro, 2006; Bhatti, & Qureshi, 2007). The study contradicts the perception that satisfied worker is a productive worker and opens the possibility of exploration that people may very well be satisfied without being very productive (Voordt, 2004).

Bhatti and Qureshi (2007) suggested that management could increase the level of commitment in the organization by increasing satisfaction with compensation, policies, and work conditions moreover changes in organizational characteristics including pay scales, employee input in policy development, and work environment could be experienced as an effort to increase organizational commitment. That leads to productivity.

To keep employees satisfied and committed family supportive practices may be used that also help in enhancing productivity and reduce turnover. Job satisfaction has its implications for job related behaviors such as productivity, absenteeism and turnover. Therefore, apart from its humanitarian utility, it appears to make economic sense to consider whether and how job satisfaction can be improved.

8. Research Implications

One of the implications of the study is taking care for the remaining employees in a restructure planning. There is a clear message to all administrators and managers to pay attention to the issue of job satisfaction and organizational commitment for layoff survivors and other employees.

Survivors are more likely to be committed to the organization when they are provided a proportionate amount of job autonomy and family friendly policies.

9. Recommendations

To carry out a study on layoff survivors by testing the relationships of facets of organizational commitment and facets of job satisfaction in direct relation to layoff survivor's productivity to see how each facet is related to productivity. Longitudinal study in the same context will add to the base of knowledge. Moreover the same type of study in different sectors like education, health, tourism etc is advisable.

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Annexure

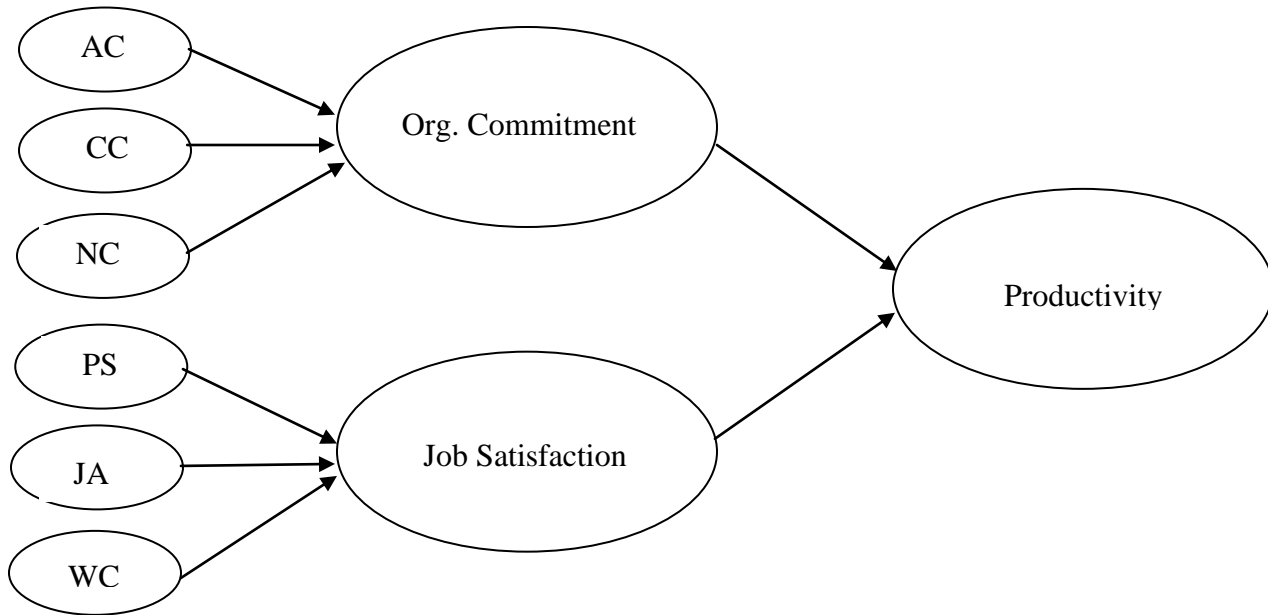


Figure 1. Diagrammatic Presentation of the conceptual model to be tested.

Table 1: Source and reliability of the scales

Variable	Source	No. of Items	Cronbach's alpha
Organizational commitment	Meyer and Allen (1997)	18	0.87
Job satisfaction	Weiss et al., (1967)	20	0.79
Employee productivity	Morgeson and Humphrey (2006); Lerner, et al., (2001); Tangen (2005)	19	0.76

* Source: References from available literature.

Table 2 : Pearson's correlation matrix for organizational commitment.

Variables	OC	AC	CC	NC
Organizational Commitment	1	-	-	-
Affective Commitment	0.927**	1	-	-
Continuance Commitment	0.606**	0.400**	1	-
Normative Commitment	0.845**	0.777**	0.163*	1

** Significant at 0.01 level (2 – tailed), N = 212.

*Significant at 0.05 level (2 – tailed).

Table 3: Pearson’s correlation matrix for job satisfaction.

Variables	JS	PS	JA	WC
Job Satisfaction	1	-	-	-
Pay Satisfaction	0.776**	1	-	-
Job Authority	0.725**	0.765**	1	-
Working Conditions	0.032	0.051	0.212	1

** Significant at 0.01level (2 – tailed), N = 212.

Table 4: Pearson’s correlation matrix for dependent and independent variables

Variables	OOC	OJS	LSP
Overall Organizational Commitment	1	-	-
Overall Job Satisfaction	0.706**	1	-
Layoff Survivors Productivity	0.510**	0.757**	1

** Significant at 0.01level (2 – tailed), N = 212.

Table 5: Regression Model

Regression coefficient, st. error in parenthesis, t – values in brackets and p – values in italics.

Constant	OOC	OJS	R ²	F – Statistic
36.442	0.603	0.641	0.690	150.365
(0.422)	(0.532)	(0.730)		
[21.859]	[13.907]	[17.337]		
<i>0.000</i>	<i>0.002</i>	<i>0.000</i>		<i>0.000</i>

* Dependent variable: Layoff survivors productivity (LSP), N= 212.

* Independent variables: Overall organizational commitment (OOC), Overall job satisfaction (OJS).

The Use of Suggestion Systems as a Tool to Solicit Input from Internal Customers

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Abstract

Organisations, as part of their ongoing commitment to improve their bottom line will often focus marketing activities on feedback from their external customers and suppliers. The internal customer can also play an important role in providing vital commentary via suggestions or ideas that could enhance company performance. The authors studied organisations in New Zealand to see how their suggestion systems operated and how effective they were from both a managerial and an employee perspective. It was found that management at all levels needed to be properly trained in implementing an effective Ideas Generation Programme and that software should be used to administer and to manage the process. A diagram was developed by the authors to assist with the generating of the ideas system. Line managers should authorise implementation of suggestions that the internal customers put forth. In rewarding staff for their contributions, it was generally found that due to financial issues, higher level approval was needed for some form of remuneration. It was found that managers will always play a pivotal role in the success or demise of a suggestion system.

Keywords: Use , Suggestion Systems ,Tool , Solicit Input , Internal Customers. Gregory Wilson, Andries DuPlessis, and Andrew Marx

1. Introduction

Marketing managers are facing difficulties and challenges as they come to terms with the sometimes bewildering pace of change and the phenomenal growth of the global market in which they operate. Among others deregulation, reduction of tariffs, internet usage, competition, technological advances, and the need to monitor costs are just a few.

Competition in many industry sectors is fierce as organisations seek ways to become more efficient and effective in their marketing operations. While some businesses are barely surviving others are thriving and if there is a short cut to success, few businesses have found it. Successful companies win over their competitors by constant hard work, and striving to make continuous improvements a way of life.

To achieve this end, the organisation needs to gather input from all sources. While the core principle of marketing is to focus on the 'external customer', the 'internal customer' can also provide important input for the organisation's success. The stated intention of internal marketing is that employees will become more involved, committed and enthusiastic Mudie (2003).

Various models have been proposed that revolve around the concept of customers existing within the boundaries of the organisation according to Farner, Luthans & Sommer (2001). The term 'internal customer' evolved in part from both the process and the concept of continuous improvements methods, by which all those involved within the confinements of the organisation strive to implement. In short, the internal customer serves as a mechanism in gaining quality marketing practices on a continuous basis.

While there are a number of tools available to marketing managers in their quest to reach their business goals, one such tool that has been under utilised is the *suggestion system*; such a system consists of either an informal or formal procedure which encourages employees to think innovatively and creatively about their work and work environment. Du Plessis, Marx and Wilson (2008) are of the opinion that marketing managers are to provide suggestions or ideas that will be directed to improving the performance of their company's practices as well as through means by which their external customers are satisfied. Employees should then be recognised for those suggestions that management feel will be useful to the organisation.

Nelson (2002), points out that employees need to know that their suggestions are taken seriously. By carefully reviewing employee suggestions, and quickly implementing those that have merit, management sends a message that employees are valued. The success of the system will, however, depend on a number of factors, such as idea creation programmes, training or awareness programmes, correct administration of data received and the implementation of viable ideas or suggestions. Management must be committed and involved in all facets.

This article covers a literature review and reports on qualitative research with structured interviews. The creating and generating of ideas to enhance marketing practices, different methods used, proper explanation of the programmes, and the ideal e-administration of the suggestion systems are discussed in the results and discussion section; the implications for marketing managers and conclusion form the last part of the article.

2. Literature Review

According to Luthans & Youssef (2004) there is growing evidence that human resources are essential to an organisations' success and may offer the best return on investment for a sustainable competitive advantage. It is therefore imperative that we keep close to our internal customers and seek suggestions and feedback on how a company's performance can be maintained or improved.

Research undertaken by Karatepe, Yavas & Babakus (2007) gave clear indications that feedback from employers gave front line staff greater job satisfaction and affective organisational commitment, with a negative effect on turnover intentions. Research findings also undertaken by Mukherjee (2006) indicate that feedback, participation, and team support significantly influence job satisfaction, and organisational commitment.

Staff suggestion schemes whereby internal customers contribute ideas for saving money or offering ways of improving business processes makes for a more inclusive culture whereby employees feel the organisation values their opinions, according to Coleman (2007).

Gupta (2008) reflects on the significance of listening to employees for better leadership by management personnel. Simple conversation about marketing initiatives or soliciting feedback from front line employees as to customer responses will help to create a culture where employees feel a sense of belonging to the organisation.

Companies are embracing new trends in compensation, incentives and employee engagement to ensure sales personnel motivational levels stay high Chang (2007). She further states that the focus on customer service specifically as a pay metric is becoming very popular.

Brem & Voigt (2007) state that in order to collect superior ideas and incorporating internal personnel in the organisation is crucial to innovation success and the importance of including these individuals through the implementation of suggestion systems.

As outlined by Wells (2005), one reason some employers are hesitant in initiating formal suggestion systems may be that creating and managing them might produce a multiple of tasks. Holland, Sheehan, Donohue and Pyman (2007) also found the administration of the suggestion system seems to be a major hurdle to overcome. Recordkeeping is of the utmost importance and the notion of e-administration has taken over.

Therefore, according to Wells (2005) it is imperative that several key elements of employee suggestion programs include senior staff support, a simple easy process for submitting suggestions, a process for evaluating and implementing them, an effective program for publicising and communicating the program and a fair and motivating award scheme. Crail, (2004) found that awards given to participants were beneficial to the morale of the organisation, while Kaufman & Casison-Tansiri (2004) gave an insight into establishing categories for awards such as cost savings or increasing revenue, or ideas that can be implemented immediately, or ways to get closer to customers to increase employee participation.

Darragh-Jeromos, (2005) found that larger organisations can submit suggestions on a sales-team basis rather than individually. Teams can be both informal who come together to merely work on an idea, or a more formally chartered group using a structured problem-solving process over a longer period.

Van Dijk & Van den Ende, (2002), created The Creativity Transformational Model which encompasses the main factors that influence the functioning of suggestion systems. This model was tested within specific divisions of three companies that can be considered best practices in the use of suggestion systems. The implementation of this model, will allow companies to transfer employee creativity into practical ideas.

According to Darragh-Jeromos (2005) a suggestion system should be integrated with the organisation culture. A common aim of a suggestion system is to achieve greater employee involvement which eventually leads to greater tangible benefits such as cost savings, and higher sales and intangible benefits like higher levels of morale.

Stone (2008) is of the opinion that employees have ideas regardless of whether or not the environment is conducive but the employee will not submit it if the environment is not seen as supportive. Therefore organisations must have incentives, which are proactive, in place for employees to feel that submission of their useable ideas will be rewarded. Incentives provide a very direct message to the employee and it is focused on their behaviour in achieving objectives; in our case idea generation programmes and participation in the suggestion system.

In contrast to Stone's view, Van Tonder (2006) is of the opinion that one of the most common observations during survey-driven diagnoses or research initiatives, is the cynicism and scepticism and often overt reluctance by employees to take part in surveys or the idea generation system. Usually the employee's response follows from substantial exposure to surveys or involvement to generating ideas in the workplace. One of the most pervasive perceptions likely to be encountered is that many of the past initiatives amounted to nothing. This perception normally arises from the absence of feedback on the outcomes or the non-implementation of ideas.

There are different ways to generate ideas, (refer to Figure 1) but it is important that the method used must be clear, straight forward, and open to all potential participants according to Wood (2003). To be effective in the idea generation process it will help to train all the people involved. The ideal will be to create a culture and attitude of participation within the organisation. Creative behaviour conceptualises suggestions as creative acts while initiative adds one particular facet to the creative process idea. The notion of ownership which generally accrues from participation is a major consideration in the implementation of suggestions or ideas. It is through involving various stakeholder constituencies from the onset of the initiative, creating ideas, the pre-implementation stage, and during the diagnoses of generating ideas that psychological ownership for the suggestion programme is established Van Tonder (2006).

While making employees aware of the benefits of a suggestion system, it should be kept in mind that some individuals within a firm, may derail, redirect, or influence the initiative of the programme. Therefore more caution rather than less should be exercised, to demonstrate to employees that management values their input. Methods to generate ideas should be clear, straight forward and open to all participants, teams and individuals. Figure 1 below is a flow chart to help marketing managers to make sure that all the methods are used and to involve all levels of employees in the process. Employees from all levels should be involved in designing the idea generation system.

The induction stage is a good point to make new employees aware of the suggestion system and to explain it to the full. Even for employees moving up to the next level by promotion should be exposed to this explanation. There are two broad categories of an induction programme where awareness and idea generation could be promoted: general topics of interest and specific, job-related issues to specific jobholders. Du Plessis (2007) points out that policies, including suggestion programmes, should be the responsibility of the human resource department. They also state that policies and programmes must be developed in consultation with representatives from trade unions (if the organisation is unionised) and it must comply with relevant legislation. Dessler (2005) endorses this and adds that such information should be given at the second stage of the three conducting stages of induction.

The latest software available should be used to manage the process effectively and efficiently. The software not only replaces the traditional suggestion box, but is able to acknowledge receipt, handle duplicated ideas, link ideas to evaluators and allow everyone to search for existing ideas and build on. Failure to acknowledge ideas is far more damaging than not seeking employees' views at all according to Sweetman (2005). Wood (2003) postulates that if supervisors are well trained to encourage ideas through the normal work teams or groups they are usually the gatekeepers of those ideas; this means that much of the initial administration of refusing and reviewing the ideas will be eliminated.

In their study it was found by Du Plessis and Paine (2007) that there is a correlation between the number of suggestions submitted and the time taken to give feedback to the suggestor and that the power of feedback to employees is often underestimated. Employees' ideas and innovations are so important in any organisation because they are on the shop floor and are experiencing the advantages or disadvantages of what they are doing. The initial view should be the assumption that all suggestions are beneficial until the evaluation proves otherwise.

No matter how small the idea or suggestion, if it contributes to the organisation's profitability, survival, sustainability or maintaining its competitive advantage it should be recorded and implemented. The progress of submitted ideas should be monitored by the software in use and that includes implementation. The implementation of ideas should also be part of the supervisor's performance appraisal. Proper feedback should also be given to all stakeholders.

3. Problem Statement and Objective of this Article

It is expected that, due to the fact that most of the suggestion systems driven in New Zealand companies are to a great extent of an informal nature and the evaluation of ideas and the implementation of good ones are neglected. This in turn could be contributed to the absence of proper idea generation programmes, a lack of awareness and publicity programmes and the acceptance of responsibility by all levels of marketing management.

The objective of this article is to report on empirical research undertaken by Unitec New Zealand, (New Zealand) on suggestion systems as applied in New Zealand organisations and the University of Pretoria, (South Africa). This article concentrates on idea generation programmes for marketing, awareness and publicity programmes, administration and processing, and corporate wide implications; other articles report on more research issues of the same study done.

4. Methodology

A number of critical success factors for suggestion systems were identified from the literature. From these critical factors the ten most important once were identified. A questionnaire was compiled by the University of Pretoria (UP) to establish to what extent these critical factors are complied within marketing organisations. The same questionnaire was used with permission from UP after minor modifications for an identical survey in New Zealand. Minor modifications involved updating and scrapping of some questions because the questionnaire was too long for use during short interviews in New Zealand.

The questionnaire was used and completed during personal interviews which were conducted in four main business areas, namely Auckland, Greater North, Manukau and Waitakere City.

From the 21 organisations interviewed 19 (90.48%) are from the private sector while two (9.52%) are from the public sector.

5. Analysis of the Results

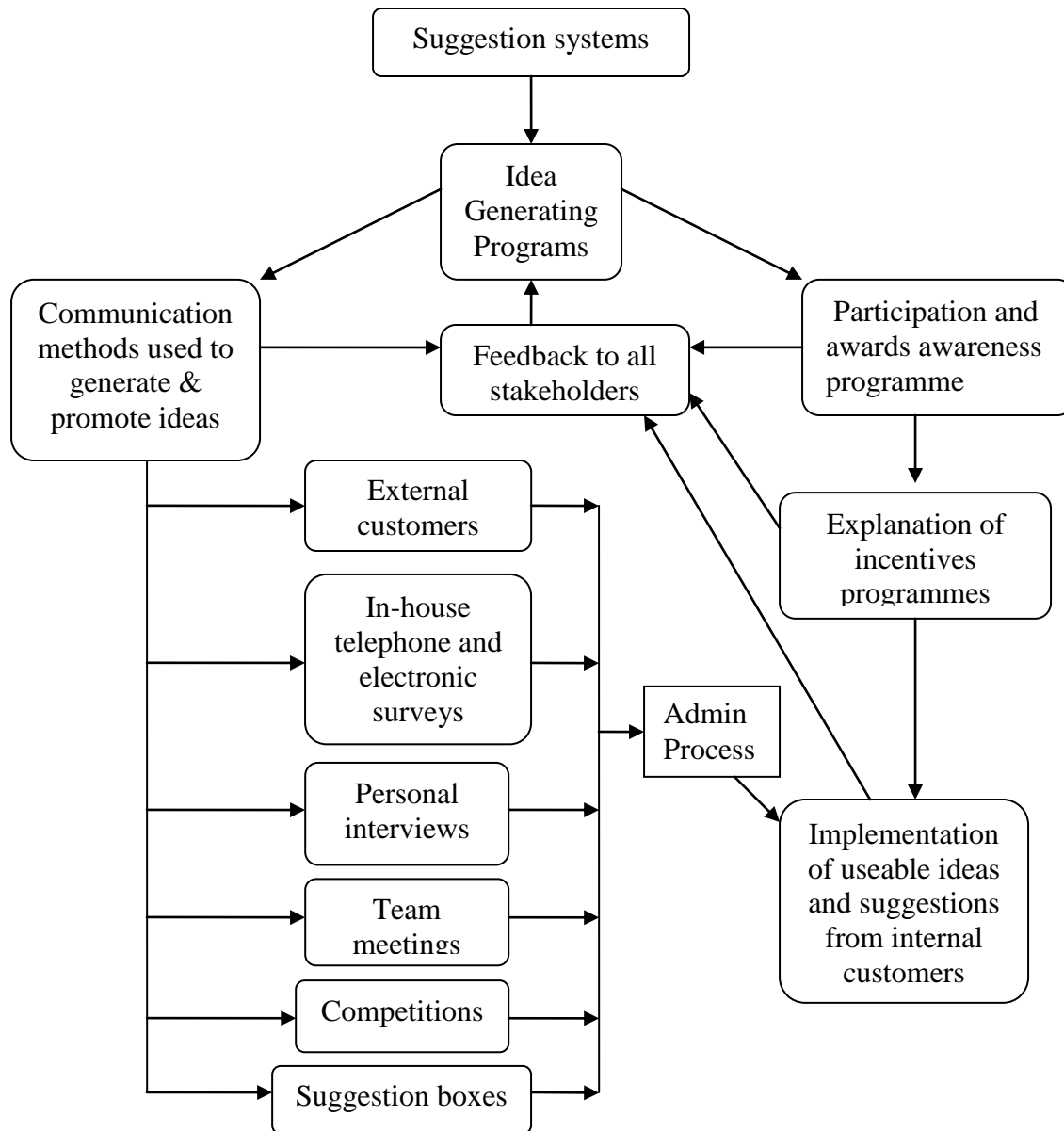
5.1 Discussion

It was found in the empirical study that only 19.05% of marketing organisations claimed to have a formal suggestion system. That means they have an official policy, certain structures and procedures in place. It is interesting to note that none of the companies surveyed, whether formal or informal, have an exclusive name for their system. It could therefore be concluded that organisations will refer to “the suggestion system or suggestion scheme”. Not one of the respondents believes that the name of the system will contribute to the success on the system.

It is essential to choose a name for the suggestion system that people, ideas and innovation could be associated with. It should be “smooth on the tongue”, not too long and easy to handle in publicity. Buchanan and Badham (2008) support this view but go one step further in saying that employees must have a conceptual understanding of the system and the name linked to it.

There was consensus among all the organisations that the evaluation of suggestions is completed in less than 90 days after it was submitted. This is an indication that marketing managers are open for suggestions and that they value the ideas of employees. The fact, however, that 71.43% of the respondents either disagree or do not know whether suggestors are getting feedback on a regular basis during the evaluation period places a question mark on the commitment of management. The flow diagram (Figure 1) below explains the flow of feedback.

Figure 1: Diagram of the Idea Generation Process in Suggestion Systems



Source: Developed by the authors for this article

6. Methods used in Idea Generation Programmes to enhance Marketing Performance

The fact that 85.71% of the respondents agree that the methods that they use to generate ideas are clear and straight forward confirms that they have either a formal or informal suggestion system in place. The methods are also open to all potential participants including teams and individuals within a marketing department. With this high percentage one could easily deduce that it was

going well in designing of the idea generation programmes as well if the methods used are so good; but it's a total different result in the next section.

7. Marketing Personnel Generating Ideas

An alarming 38.10% of the respondents reported that their employees from all levels are not involved in the design of the idea generation system. A further 28.57% of the respondents were unsure; therefore two thirds (66.67%) of their organisation's employees are excluded in the basic design of what could be a possible cost saving or a possible labour turnover decrease. Only a third (33.33%) of the respondents is sure that their employees are involved and contribute positively to possible cost saving or attaining of their competitive advantage.

8. Marketing Personnel Awareness and Publicity Programme

Marketing staff are often the most important link in the idea generation programme. Employees and their immediate managers are the people with the most knowledge of the job and it came as a surprise that 66.66% of the respondents admitted that no explanation of the suggestion programme forms part of the induction programme in their organisations. This could be attributed in part to the informal approach that many NZ companies have within their marketing departments to suggestion schemes and their implementation procedures. In Figure 1 above it is clear that the awareness and publicity programme follows the idea generating programme. The explanation could easily be done during the induction period.

9. Marketing Departments Administration and Processing

The question was put forward to the respondents whether software is used to submit and process suggestions. Only 4.76% of the respondents agreed that software is in use for administration and processing. Almost all (95.24%) of the respondents responded that they don't use any software for the said issues. It can be deduced that the organisations are too small to layout huge amounts of money on systems that they think could be managed manually or as in the case of the marketing department where the emphasis is on satisfying the external customer. The use of database was predominating use by marketing personnel, but this was more for tracking of customer details and purchases.

10. Improving Marketing by gathering of ideas

More than three quarters (80.95%) of the respondents agreed and strongly agreed that they receive their ideas via email, intranet, internet or face to face. It can be deduced that the old fashioned way of meetings face to face still has its value. In Figure 1 above all the aforementioned methods are mentioned as a method to gather ideas.

11. Responsibility

A disappointing 19.05% of the respondents agreed that suggestions received in a specific section are authorised by the marketing team leaders or supervisors and implemented immediately. It can

be deduced that some marketing managers either don't want to take responsibility or they don't have the authority or are not empowered to do so. If management does not take the responsibility, who must? Surely, the suggestor cannot implement the suggestion without the approval of their marketing manager? If there is agreement on this, then it should be the responsibility of the marketing manager. A total of 71.43% of the respondents were unsure what happens in their organisation.

12. Who has implementation authority?

With the previous section and responses to that question in mind, it is not surprising that the response to this question was almost a 100% (95.24%) that a higher level of authority needs to approve rewarding or implementation of suggestions. It can be said therefore that higher approval is necessary due to capital investment. It is also deduced that the supervisor only makes a recommendation about the acceptability of the idea in the concerned work area or section and then enter it in the process for higher level sign off.

13. Implementation implications

With reference to the implementation of ideas and suggestions, consensus (95.24%) was reached that it is the responsibility of the highest level in the organisation to approve recognition and rewards and the implication of any suggestions. If senior management cannot take responsibility for rewards and the implementation of the suggestions it is understandable that not in one of the participating organisations implementation of suggestions form part of the marketing managers' performance appraisal.

14. Implications for Marketing Managers

Most marketing departments within an organisation focus on the needs of their customers and ensure they are looked after; marketing personnel do want to be recognised or awarded for their efforts and achievements as well. Higher level authority in the organisation must ensure that they do not neglect recognising, rewarding, and implementing useable ideas and suggestions.

Marketing managers' involvement in the effort to make the suggestion system a success creates a cascade effect down to baseline employees, which will encourage them to become active in the system.

Therefore, the supervisors within a marketing role must support the Idea Generation Programmes; without them supporting the programmes, it is hardly likely that subordinates will come up with new ideas. If there is an air of negativity, it will pervade down to the subordinates with the result that participation dwindles. The supervisor or team leader in a marketing role is an important aspect in the success of the scheme.

Most of the resistance and resentment results from lack of knowledge. It is therefore important that marketing managers and supervisory personnel are trained in how they and their staff can benefit from the suggestion system, how to evaluate ideas, how to administratively assist subordinates and how to encourage ideas, which means they must know how to develop ideas from their marketing group or team. Managers and supervisors alike in all areas of marketing will always remain pivotal in the success of the suggestion system.

15. Conclusion

Organisations should use any possible management tool that contributes to their survival. While marketers focus their efforts in looking after their external customers, the fact that internal customers can be a contributing factor to ensuring customer satisfaction and hence customer retention can be maintained. The most under-valued management tool available is the suggestion system which consists of a formal procedure that encourages employees to think innovatively and creatively about their work and work environment, and to produce ideas.

Submission of employee's useable ideas should be rewarded in organisations; incentives should be in place for employees to feel valued. Explanation and awareness of the suggestion system could be done during the induction stage, even for employees getting promotion. Software, to manage the process effectively and efficiently, could minimise administrative delays. A flow diagram (Figure 1) was developed to assist marketing managers in the Idea Generating Process. Some interesting responses along with the implications for marketing managers were discussed.

While sales personnel can be rewarded through incentive schemes based on increasing revenues the majority of marketing personnel do not benefit. Marketing managers must get actively involved by creating the opportunities for employees to submit their ideas, get those ideas properly evaluated, give recognition when it is due and implement them to reap the numerous benefits of a suggestion system tool.

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THE RELATIONSHIP BETWEEN CREATIVE ACCOUNTING AND DIVIDEND PAYMENTS: EVIDENCE FROM DUBAI FINANCIAL MARKET

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Abstract

This study aims to investigate the existence of creative accounting practices in the public industrial corporations listed in the Dubai Financial Market (DFM). The sample consisted of 10 companies, during the period 2004-2008, and tests the relationship between the creative accounting and dividend payments. To achieve these objectives the researcher used several statistical methods; these methods were conducted include the non-parametric test (Binomial Test) to investigate the first hypothesis, as well as a parametric test (Pooled Least Squares Method) to test the other hypotheses. The most important conclusion of the study was the public companies listed in the DFM have practiced creative accounting each year during the study period with some variations during the time period in investigated. Furthermore, the research concludes that there is a significant relationship between the practice of creative accounting and dividend payments.

Keywords: Creative Accounting, Dividend Payments, Financial Difficulty.

1. Introduction

In the last few years, many developments have taken place within the business environment; a lot of complicated trading practices and financial dealings have emerged and new accounting standards have been issued to report on these dealings. This has increased the alternatives a company can use to achieve its goals, and hide its real operation results and its real financial position, and show it in false way not as its facts, through manipulating the financial statements which is called creative accounting which may cause difficulty for the national economy (Ahmed, 2008).

Financial statements provide information that can be used by interested parties to assess the performance of managers and to make economic decisions. Users may assume that the financial information they receive is reliable and fit for its purpose. Accounting regulation attempts to ensure that information is produced on a consistent basis in accordance with a set of rules that make it reliable for users. However, communications between entities and shareholders may be deliberately distorted by the activities of financial statement preparers who wish to alter the content of the messages being transmitted. This type of distortion is often referred to as 'creative accounting'. While opinions on the acceptability of accounting manipulation vary, it is often perceived as reprehensible (Gowthorpe & Amat, 2005).

Creative accounting is referred to also as income smoothing, earnings management, earnings smoothing, financial engineering and cosmetic accounting. The preferred term in the USA, and consequently in most of the literature on the subject is 'earnings management', but in Europe the preferred term is 'creative accounting' (Amat & Goethorpe, 2005).

Definitions of creative accounting vary, and include the following: 'Is the deliberate dampening of fluctuations about "some level of earnings considered to be normal for the firm. (Barnea et al.

1976). And identified as (Merchant and Rockness, 1994) “any action on the part of management which affects reported income and which provides no true economic advantage to the organization and may in fact, in the long-term, be detrimental”.

This research aims to discover the creative accounting practice in the DFM companies, which aimed to meeting the requirement to pay out cash dividends. Creative accounting can be achieved by various means such as the use of accruals, changes in accounting methods, changes in capital structure, etc. In this study, we focus on accruals as a source of creative accounting. Basically, accounting accruals represent the difference between a firm’s accounting earnings and its underlying cash flow. The difference between earnings and cash flow arises mainly because of accounting conventions as to when, and how much, revenues and costs are recognized. However, since, within these firms have discretion to recognize transactions or not conventions, managerial flexibility generates opportunities for creative accounting. For instance, by taking income-increasing accrual adjustments now, managers can boost current reported earnings (Savov, 2006).

The external auditor needs to know all the different creative accounting practices, so it will be easy for him to discover these practices and do his qualified and efficient audit, and express right opinion about how true the financial statements he audited in order to minimize the expectation gab and increase users trust in the financial statements and the audit services, especially after the collapse of many big international corporations which cause no trust in the external auditing. Further, year-end financial audit work by external auditors appears to play a role in moderating earnings management by minimizing managers’ opportunities to manage earnings in the fourth quarter (Brown and Pinello, 2007). Also, the well qualified internal auditors might play an incremental role in that they can be seen as an additional third party that monitors management’s actions on a year-round basis; thus, we posit that as a company’s improves in quality, it is more likely to serve as a credible detection and deterrent mechanism that might serve to moderate earnings management choices (Prawitt, et al., 2009).

In this paper we extend the analysis of creative accounting to examine the interaction between the reporting behavior of corporations, their investment and dividend policies. The main issue of the study is as follows: Do the managements of DFM companies engage in creative accounting? And is there a relationship between the creative accounting practicing of DFM companies and cash distributions?

Cash flow ratios can be play an important role in discovering whether creative accounting practices are being pursued. The usage of net operational cash flow can detect creative accounting theirs made by the management to increase the net income of the company and raise the share price (Ahmed, 2008).

The study by Abu-Ijela and Hamdan, (2010) investigates the existence of earnings management practices among the industrial public companies listed on the Amman Stock Exchange, and tests the impact of auditing quality characteristics (the audit office size, the connection with other global offices, the client retention period, the auditing fees and the specialization in the client's industry) on earnings management practices.

To achieve these objectives, the researcher used several statistical methods. The most important conclusion of the study was that industrial public companies listed in Amman Stock Exchange have practiced earnings management each year throughout the period 2001–2006 with some variations during those years. However, the most significant variation in the practice of the

earnings management between 2005 and 2006, in 2005 the practice was not pronounced (2%), while in 2006 practice most severe (62%).

Furthermore, the researchers concluded that there is a significant effect of each characteristic of audit quality (as mentioned above) on earnings management practices. Exclusion, the connection with other global offices.

Based on the previous results, the researchers suggested several recommendations; the most important of these was that users of financial reports should be educated about earnings management in general, and the investors in particular, and its effects on investment decisions in particular.

Prevost, (2008) studied the relationship between earnings management and the marginal cost of debt to the firm. This paper examined the relationship between earnings management and the marginal cost of debt to the firm using a sample of traded corporate bonds for the period 1994-2005. The marginal cost of debt was captured by market determined yield spreads, while earnings management was proxies by three alternative estimates of abnormal discretionary accruals. The standard regression models employed revealed that non-investment grade bonds in particular are penalized for higher abnormal accruals but the same does not appear to hold for investment grade bonds. In regression models that control for potential self-selection bias arising from the propensity of lower creditworthy firms to engage in greater earnings management, this paper found that abnormal accruals have a negative price impact on all bonds generally. However, Prevost has also found that the effect was more severe for non-investment grade bonds.

Creative accounting goals help achieve management targets and show the company's results as well as its financial position in different way from its real through manipulating the financial statements. Indeed there are a lot of creative accounting practices whether on or off balance sheet; there are a lot of accounting problems related with these practices which force the external auditor to study them in order to discover it and to express their opinion about the audited financial statements. Analytical procedures offer warning signs which are risk indicators for creative accounting practices which allow the external auditor to concentrate his time and his effort on the areas that have unexpected differentials and substantial changes. They can therefore identify the areas which cause failure which need more concentration and care can the extended the range of test of details of transactions and balances. The operational cash flow allows the external auditor to detect creative accounting practices done by management in order to increase the net income of the company; but these activities do not generate any operational cash flow, so if the adjusted operational cash flow to income ratio and the excess cash margin are both stable through different periods; this would indicate that there are no creative accounting practices. However if they are unstable this would indicate that management is doing creative accounting practices.

In this area, the study by Ahmed, (2008) found the following results: the external auditor has to remove unrecruing items from net operational cash flow reported in the cash flow statement in order to reach the adjusted cash flow from continuous operations through preparation of a modified operational cash flow statement. The external auditor has to remove unrecruing items from the income from continuous operations reported in the income statement to reach the adjusted income from continuous operations. The external auditor must use both the adjusted operational cash flow to income ratio and the excess cash margin during audit planning phase to detect creative accounting practices as early as possible; these ratios provide risk indicators

which allow him to assign suitable procedures during the field work phase and do substantive tests relating to the test of details of transaction and balances and in the general review phase of the financial statements to express his opinion about these statements.

On the other hand the stock market participants devote a great deal of attention to a firm's reported earnings; not surprisingly, existing empirical research suggests that managers indeed seek to exploit this phenomenon. Healy (1985) was one of the first to present evidence that accrual policies are related to the incentive inherent in the managers' bonus contracts. Coles et al. (2003) analyzed 128 cancellations and the subsequent reissue of executive stock options and demonstrated that management attempts to manage accruals to their own benefit. Bergstresser and Philippon, (2006) provided evidence that the tendency to manipulate reported earnings was more pronounced for firms where the CEO's potential total compensation is more closely tied to the value of their stock and option holdings. Savov (2006) tried to find a relationship between earnings management and investment. She investigated whether true, fundamental earnings had a stronger impact on reporting bias among firms that were currently overvalued. Using a sample of German companies, the study found support for these predictions. In particular, firms that invested more built higher discretionary accrual to their reported earnings figures and vice versa. Dividend payments were negatively related to these two activities. Finally, Savov (2006) found that the sensitivity of earnings management to permanent earnings increases when the company is overvalued.

2. Research Methodology

2.1. Research Model

The objective of the study is to measure the creative accounting practices of companies listed on the financial markets of DFM. The study uses the discretionary (Abnormal) accruals (Proxy variable) for measuring the presence of creative accounting. Subsequently, the study aims to measure the relationship between creative accounting and dividend payments. The study uses the following control variables: liquidity, retained earnings, company size, financial leverage, and profitability, and reserves. These are the control variables that affect cash dividends (Besley & Brigham, 2005).

2.1.1 First Model

The first model uses dummy variables to denote creative accounting.

$$DP_{i,t} = \alpha + \beta_1 CreativeAcc_{i,t} + \beta_2 RetainedEa_{i,t} + \beta_3 Liquidity_{i,t} + \beta_4 Size_{i,t} + \beta_5 Leverage_{i,t} + \beta_6 Profitability_{i,t} + \beta_7 Reserves_{i,t} + \ell_{i,t}$$

Where:

$DP_{i,t}$: is the dividend payments for firm (i) in year (t).

α : constant.

$\beta_{1..7}$: is the slope of the independent and controls variables.

$CreativeAcc_{i,t}$: dummy variable, is a measurement of creative accounting, that takes (1) if the firm used creative accounting practices, and (0) otherwise.

$RetainedEa_{i,t}$: is the retained earnings from firm (i) in year (t).

$Liquidity_{i,t}$: is a measurement of liquidity for firm (i) in year (t) using quick ratio.

$Size_{i,t}$: the natural logarithm of total assets for firm (i) in year (t).

$Leverage_{i,t}$: total debt / total assets for firm (i) in year (t).

$Profitability_{i,t}$: is a measurement of net income for firm (i) in year (t).

$Reserves_{i,t}$: is a total statutory and general reserves from firm (i) in year (t).

$\ell_{i,t}$: random error.

2.1.2 Second Model

In the second model the absolute value of discretionary accruals (Abnormal accruals) was used to denote the extent of creative accounting.

$$DP_{i,t} = \alpha + \beta_1 |DACC|_{i,t} + \beta_2 RetainedEa_{i,t} + \beta_3 Liquidity_{i,t} + \beta_4 Size_{i,t} + \beta_5 Leverage_{i,t} + \beta_6 Profitability_{i,t} + \beta_7 Reserves_{i,t} + \ell_{i,t}$$

Where:

|DACC|_{i,t}: is the absolute value of discretionary accruals of firm (i) in year (t).

2.2. Sample and Data

The sample includes 10 companies listed in DFM, with data necessary to estimate the modified version of the Jones (1991) model proposed by Dechow et al. (1995) between 2004 and 2008.

2.3. Variables Measurement

2.3.1 Independent Variable

Creative Accounting, The study used the (Dechow, et al., 1995) model, which is a modification of the Jones (1991) model. Dechow et al. (1995) found that the modified Jones model was relatively more powerful in detecting discretionary accruals than the original Jones model. In addition, most of the previous research on discretionary accruals used this model including recent papers that as Abu-Ijela and Hamdan, (2010). The discretionary accruals are calculated using the following steps:

i- First step: Estimating Total Accruals

In this study, the total accruals are measured by the difference between net income and net cash flows from operating activities, as follows:

$$TACC_{i,t} = NI_{i,t} - OCF_{i,t}$$

Where:

TACC_{i,t}: is the total accruals for firm (i) in year (t).

NI_{i,t}: is the net income for firm (i) in year (t).

OCF_{i,t}: is the operating cash flow for firm (i) in year (t).

ii- Second step: Estimating the regression model

In this model the slope (coefficient β) is estimated

$$\frac{TACC_{i,t}}{A_{i,t-1}} = \alpha + \beta_1 \left(\frac{1}{A_{i,t-1}} \right) + \beta_2 \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}} \right) + \beta_3 \left(\frac{PPE_{i,t}}{A_{i,t-1}} \right) + \ell_{i,t}$$

Where:

TACC_{i,t}: is the total accruals of firm (i) in year (t).

A_{i, t-1} : is the total assets of firm (i) at the end of year (t-1).

ΔREVi,t : is the change in revenues of firm (i) between years (t) and (t-1).

ΔRECi,t : is the change in receivables of firm (i) between years (t) and (t-1).

PPEi,t : is the level of property, plant, and equipment of firm (i) in year (t).

ℓ_{i,t} : random error.

Some prior research applied the above model temporally, but Jeter & Shivokumor (1997) suggested that this model might be applied cross-sectionally by estimating the coefficients for a sample of firms in the same industry. Comparing the temporal and the cross sectional versions of this model in estimating abnormal accruals, one may notice that: first, the temporal model requires the sample to have at least ten observations for each firm. Second, the cross-sectional version is not a substitute for the temporal one but it provides an industry-relative measure of abnormal accruals. Finally, the cross-sectional model is less likely to detect any abnormal accruals if such accruals are correlated across several firms in the same industry because the discretionary accruals are more firm-specific than industry-specific (Ebrahim, 2001).

iii- Third Step, Estimating Non-discretionary Accruals

Use the beta (β) which was found in the previous step for the estimation of non-discretionary (normal) accruals:

$$NDACC_{i,t} = \alpha + \beta_1 \left(\frac{1}{A_{i,t-1}} \right) + \beta_2 (\Delta REV_{i,t} - \Delta REC_{i,t}) + \beta_3 (PPE_{i,t})$$

iv- Final Step, Estimating Discretionary Accruals

The discretionary accruals are measured by the difference between total accruals and non-discretionary accruals, as follows:

$$DACC_{i,t} = TACC_{i,t} - NDACC_{i,t}$$

2.4. Hypotheses Development

H₀₁: There are no indications that the companies listed in DFM adopt the creative accounting practices.

H₀₂: There is a significant positive relationship among creative accounting practices and cash dividend in the companies listed in DFM.

3. Data Analysis and Testing Hypotheses

This part of the study includes three main topics; the first is concerned with the testing of the reliability the data. If the data does not have normal distribution, then it should be a subject to necessary treatment so we could use it correctly to test the hypothesis. Since the study aims to examine the effect of many independent variables on dependent variable, using a regression model, therefore the reliability such a model should be examined, by ensuring that this model is free from Multicollinearity between the independent variables. Also the effect of Autocorrelation and Heteroskedasticity. The second part of the statistical analysis shows descriptive statistics of the study variables. The final part involves a testing the study hypotheses, and the estimation the parameters of regression model.

3.1 First stage: Test the Validity of data for statistical analysis

Before data analysis and hypothesis testing, we must first identify the characteristics of data to make sure the model is appropriate by using the following tests:

3.1.1 Normal-Distribution Test

To secure approximation of data to normal distribution, Jarque Bera parametric test was used. The decision basis was to accept the null hypothesis that the data follow normal distribution if

the probability of (J-B) test was more than 0.05 (Gujarati, 2003). All variables related to the study (Discretionary Accruals, Dividend Payment, Liquidity, and Retained Earnings) were tested except the (Creative Accounting) variable which is a dummy variable. From table (1) the study has found that the Jarque-Bera Test has a statistical value is low and is significant.

Table 1: Tests for normal distribution of the study variables

Variables	Jarque-Bera Test	
	J-B	Prob.
Discretionary Accruals	0.409	0.815
Dividend Payment	0.597	0.742
Liquidity	1.851	0.396
Retained Earnings	0.559	0.756
Size	2.100	0.921
Leverage	0.921	0.618
Profitability	1.609	0.098
Reserves	0.776	0.215

3.1.2 Multicollinearity test

The strength of the General Linear Model (GLM) basically depends on the hypothesis that every variable from the independent ones is by itself independent. If this condition is not realized, the general linear model will then be inapplicable. It can never be considered good for parameters' evaluation (Sifo & Mishal, 2003). To find out if the problem of the Multicollinearity is present Collinearity Diagnostics are calculated for each of the independent variables and Variance Inflation Factor Coefficient (VIF) estimated.

3.1.3 Correlation matrix between independent variables

Table 2 shows the results of Pearson correlation matrix between each pair of independent variables for the sample companies. We note from this table that there is high correlation among all the explanatory variables of the study.

To test this issue further, the study uses Collinearity Diagnostics to support the credibility of the results; there is no problem of Variance Inflation Factor test among variables if the value of VIF is less than 10 (Gujarati, 2003), from table (3) we note that the VIF of all independent variables are under 10; the results show that VIF is below 10; therefore we consider that there is no effect of Variance Inflation Factor problem on the reliability of the study model.

3.1.4 Autocorrelation Test

To examine the existence of this problem in the models, the study uses some tests as (Durbin Watson Test). This test is considered to be one of the most frequently used methods of economics, and by testing the Multicollinearity problem in the model it reveals the results show in the Table 3 from the above table we note that the statistical model D-W calculated it's near to 2 which means that there is no Multicollinearity problem in the study models.

Table 2: Correlation Matrix between the Independent Variables

Variables	Discretionary Accruals	Creative Accounting	Liquidity	Retained Earnings	Size	Leverage	Profitability	Reserves
Discretionary Accruals	1							
Creative Accounting	0.834**	1						
Liquidity	-0.597*	-0.411	1					
Retained Earnings	0.823**	0.953**	-0.621*	1				
Company Size	0.352	0.213	0.410*	0.611*	1			
Financial Leverage	-0.199*	0.201	0.629**	-0.112	0.464*	1		
Profitability	0.159	0.280*	0.387	0.475*	0.279	0.590*	1	
Total Reserves	-0.096	0.310	-0.109	-0.248	0.599**	-0.307*	0.555**	1

Significant at ** 5%; * 10% levels.

Table 3: Variance Inflation Factor test and Autocorrelation Test and Heteroskedasticity Test

Dependent & Control Variables	Multicollinearity Test		Models	Autocorrelation Test	Heteroskedasticity Test
	Tolerance	VIF		Durbin Watson Test	White Test
Creative Accounting	0.895	1.117	First Model	2.532	0.170
Discretionary Accruals	0.129	7.752			
Liquidity	0.936	1.068			
Retained Earnings	0.966	1.035			
Company Size	0.871	1.148	Second Model	2.549	0.682
Financial Leverage	0.542	1.845			
Profitability	0.365	2.740			
Total Reserves	0.486	2.058			

3.1.5 Heteroskedasticity Test

To examine the existence of Heteroskedasticity problem in the models the study uses White test, the results show in the Table 3. From this table we note that the significant value is more than 5% for all models which means that there is Heteroskedasticity problem in the study models, In order to solve this problem, the White test within the package of E-views program was used.

3.2 Second Stage: Descriptive Statistics

Table 4 reports descriptive statistics for the study variables. In this table the data can be described as follows: there is a continuous increase in the dividend payment; the year 2006 has the highest average, and then started to decline in subsequent years. The standard deviation was high; this shows the different dividend payment among companies. The liquidity which was measured using quick ratio, notes that 2004-2005 are the years of the best liquidity, while 2008 was the worst year in terms of liquidity. The retained earnings, we note that the size of companies increased from year to year, and that companies in DFM heavily on debt financing. Corporate profits fluctuated from year to year during the study period; the statutory and general reserves fluctuated from year to year as well as depending on the volatility of the Profitability. We can note that the years where the practice of creative accounting; only two firms used creative accounting practices in 2004. In 2007 however the practice of creative accounting seemed higher whereas seven firms had used creative accounting practices.

Table 4: Descriptive statistics for the study variables

Variables		Years				
		2004	2005	2006	2007	2008
Cash Dividends	Mean	43,971,110	47,950,080	303,802,341	165,349,395	182,328,958
	Std. Deviation	108,631,195	118,353,230	829,003,997	418,282,725	412,839,182
Discretionary Accruals	Mean	-675,436,498	-1,226,363,817	-879,022,988	-979,082,161	-1,629,133,751
	Std. Deviation	2,400,222,065	3,289,850,931	3,656,879,480	4,315,951,397	6,514,181,798
Liquidity	Mean	2.154	2.424	1.378	1.635	0.999
	Std. Deviation	1.988	1.583	0.402	0.943	0.785
Retained Earnings	Mean	301,030,208	813,894,225	1,234,758,942	1,911,856,523	2,050,409,417
	Std. Deviation	702,424,102	2,042,576,556	3,234,665,622	4,871,738,725	5,433,861,884
Company Size (AED)	Mean	171,923,105	195,854,625	205,215,658	187,542,659	201,458,756
	Std. Deviation	12,254,685	21,548,659	11,999,554	13,598,753	15,487,659
Financial Leverage	Mean	0.310	0.297	0.325	0.380	0.274
	Std. Deviation	0.254	0.290	0.300	0.154	0.254
Profitability (AED)	Mean	17,557,522	18,754,659	16,548,740	20,546,872	19,857,542
	Std. Deviation	13,548,957	12,785,462	9,857,629	8,754,625	2,478,954
Total Reserves (AED)	Mean	23,654,627	25,685,479	24,578,657	26,854,820	23,564,789
	Std. Deviation	18,954,672	20,582,013	17,854,698	12,548,645	12,772,116
Creative Accounting	Category (1)	13	15	15	31	31
	Category (0)	37	35	35	19	19

* United Arab Emirates Dirham (AED) = \$0.2722

3.3 Third Stage: Data analysis and Testing of Hypotheses

The sample of the study consists of a group of companies (Cross Section Data) during the period of time (Time Series Data); the best regression model for this data is the Pooled Data Regression model. The testing of regression models that include control variables as follows:

- i. The first step: estimate the regression model, which includes control variables only and test its statistical significance, and keep the control variables that are statistically significant.
- ii. (Adjusted R-squared) is estimated for the regression model, which includes the control variables that are statistically significant.
- iii. The final step (adjusted R-squared) is estimated for the regression model, which includes independent and control variables.
- iv. If (adjusted R-squared) increases this proves the ability to control the variables that control the relationship between independent variables and the dependent variable.

4. Testing of the control variables

Table 5 shows the results from testing the control variables. When testing the first control variable: (Liquidity) the coefficient ($\beta = -0.261$) is negative, indicating that the relationship between the cash dividend and liquidity is negative. It is abnormal relationship, and may indicate that the company distributed profit without having liquidity, possible that these profits have been distributed, are made from the sale of assets or from other sources. From Table 5, the value of calculated $t = -5.242$, which is greater than its tabled value (that is 1.684) at the 95% confidence level. Accordingly the alternative hypothesis ($H_a: \beta_1 \neq 0$) is accepted, while rejecting the null hypothesis ($H_0: \beta_1 = 0$); which means that the relation between the cash dividend and liquidity is significantly negative. The other control variable: (Retained earnings) had coefficient of 0.278 which was positive, indicating that the relationship between the cash dividend and retained earnings is positive.

Table 5: Testing Control Variables

Variables	Coefficient (β)	t-Statistic	Prob.
Liquidity	-0.261	-5.242	0.000
Retained Earnings	0.278	3.593	0.001
Company Size	0.311	2.809	0.033
Financial Leverage	-0.274	-1.988	0.000
Profitability	0.145	4.100	0.021
Total Reserves	0.272	7.090	0.000
Only control variables in the models			
Adjusted R-squared	0.522		
Dependent & control variables in the models			
Adjusted R-squared	0.819		

t-Scheduled: at df 38, and confidence level of 95% = 1.684

It is normal relationship, and is consistent with the theory of dividend. When testing the null hypothesis ($H_0: \beta_2 = 0$); which means that there is no relationship between the cash dividend and retained earnings, from table 5, the value of calculated $t = 3.593$, which is greater than its tabled value, also the Prob.=0.001 (which is less than 5%); accordingly the alternative hypothesis ($H_a: \beta_2 \neq 0$) is accepted, while rejecting the null hypothesis ($H_0: \beta_2 = 0$); This result means there is a relationship between cash dividend and retained

earnings. And because the former two variables are important for this, they are kept in the model. With regard to the relationship between company size and dividend payments, notes that there is a positive relationship between them. And this means that large companies are the most widely distributed of the profits, this relationship was statistically significant. The debt contracts of the most important factors that affect the dividend, which is why we have made financial leverage of the study models within the control variables, and we note that the relationship was negative and statistically significant, indicating that much of an effect size of the company's debts to restrict the freedom of companies in the DFM in carrying out distributions. Finally, we found that there is influence of the profitability of the company and its reserves in cash distributions, and the positive relationship between them is normal and consistent with the financial theory.

From table 5 we can see that the (Adjusted R-squared) for the model that includes all independent and control variables are higher than the other model; this means that the control variables are important in the study model, and get more accurate results of their existence in the model.

5. Testing of Hypotheses

5.1 First Hypothesis

To test this hypothesis (Non-Parametric Test) was used, it is (Binomial Test), and table 6 shows the results of testing the first hypothesis:

Table 6: Testing of First Hypothesis

	Category	N	Observed Prop.	z-statistic	p-value	
Creative Accounting	Group 1	0	100	0.5	-1.442	0.130
	Group 2	1	100	0.5		
	Total		200	1		

Z-Scheduled at confidence level of 95% = 1.65

Group (1) shows the companies that have not practiced creative accounting, and they constitute 50% of companies, and group 2 shows the companies that have practiced creative accounting, the constitute 50% also. The calculated value of Z-statistic has been 1.442 this value is non-significant at 5% since it was Less than its tabled value 1.65; for this cannot be judged that the companies listed in DFM has exercised the creative accounting.

5.2 Second Hypothesis

The main hypothesis can mathematically be expressed as follows: null hypothesis: $H_0: \beta_1 = \beta_2 = \beta_3 = 0$, against alternative hypothesis: $H_a: \beta_1 \neq \beta_2 \neq \beta_3 \neq 0$; a mathematical model can be built, that represents the previous proposed relationship; as follows:

$$DP_{i,t} = \alpha + \beta_1 CreativeAcc_{i,t} + \beta_2 RetainedEa_{i,t} + \beta_3 Liquidity_{i,t} + \beta_4 Size_{i,t} + \beta_5 Leverage_{i,t} + \beta_6 Profitability_{i,t} + \beta_7 Reserves_{i,t} + \ell_{i,t}$$

$$DP_{i,t} = \alpha + \beta_1 |DACC|_{i,t} + \beta_2 RetainedEa_{i,t} + \beta_3 Liquidity_{i,t} + \beta_4 Size_{i,t} + \beta_5 Leverage_{i,t} + \beta_6 Profitability_{i,t} + \beta_7 Reserves_{i,t} + \ell_{i,t}$$

In the first model dummy variables were used to denote the creative accounting, and in the second model absolute value of abnormal accruals (Discretionary accruals) was used to denote the creative accounting.

Using Pooled Least Squares Method for testing the main hypothesis, results shown below in Table 7 have found the value of R² to first model equals 83.3%, and in the second model equals 79.8%; this percentage indicates the reliability of the study model;

this means that the independent variables (Creative accounting, Discretionary accruals) can explain 83.3%, 79.8% of the behavior of the dependent variables (Dividend payments), we can also see that the coefficient of correlation is strong proportional. The study has found that the slope value of the independent variable (Creative accounting or Discretionary accruals) is positive in models: $\beta_1=0.134, 0.174$; this means that the companies used creative accounting practices to increase earnings.

Table 7: Testing of second hypothesis

Pooled Least Squares Method			
First method			
Variable	Coefficient (β)	<i>t</i> -statistic	<i>p</i> -value
Creative Accounting (0,1)	0.112	7.578	0.000
Liquidity	-0.106	-8.554	0.000
Retained Earnings	0.134	6.383	0.000
Company Size	0.201	5.199	0.011
Financial Leverage	0.198	1.032	0.089
Profitability	0.344	2.765	0.000
Total Reserves	0.131	2.888	0.000
R-squared		0.833	
F-statistic		9.895	
Prob. (<i>F</i> -statistic)		0.000	
Second method			
Variable	Coefficient (β)	<i>t</i> -statistic	<i>p</i> -value
Discretionary Accruals	0.260	5.454	0.000
Liquidity	-0.235	-4.489	0.000
Retained Earnings	0.174	4.597	0.000
Company Size	0.099	2.890	0.000
Financial Leverage	0.441	2.120	0.001
Profitability	0.176	4.129	0.000
Total Reserves	0.355	1.971	0.000
R-squared		0.798	
F-statistic		7.416	
Prob. (<i>F</i> -statistic)		0.000	

t-scheduled: df 38, and 95% = 1.684

F-scheduled (df for denominator $n-\beta-1 = 80-3-1 = 76$) and (df for numerator $=\beta = 3$) = 2.760

The relationship between creative accounting and cash dividends is positive; this means that the companies used creative accounting has been presenting dummy profits in their financial reports, despite the lack of liquidity, these companies distribute profits to shareholders; this threatens their exposure to the financial failure because it distributes the dummy profits. The value of *t*-statistic in two models equals 7.578 and 5.454 respectively, which is greater than its tabled value (that is 1.684) at the 95% confidence level. Also, the probability equals 0.000 for these models (which is less than 5%); accordingly the alternative hypothesis is accepted, while rejecting the null hypothesis.

8. Conclusion

This paper examined the relationship between the creative accounting and dividend payments. The most important conclusion of the study was that the public industrial corporations listed in the Dubai Financial Market have practiced creative accounting each year during the study period (2004-2008) with some variations during those years. However, the most significant variation in practice has been between the 2004 & 2007, where the year 2007 shows the least severe percentage (12.5%), and the year 2004 shows the most severe percentage (75%). The study was unable to obtain evidence that industrial corporations listed in DFM used creative accounting methods; the study has found that only half the sample had used creative accounting, and was not statistically significant. Furthermore, the researcher concludes that there is a significant positive relationship between the creative accounting and dividend payments, and found negative relation between the cash dividend and liquidity, this will lead to the distribution of dummy profits and will adversely affect the financial structure of companies and lead to financial difficulty or financial collapse.

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The Impact of Psychological Contract on Affective Commitment

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Abstract

This study examined the relationship between psychological contract types i.e. relational and transactional contract with affective commitment. Using sample size of 109 employees of four private sector organizations of Pakistan, Results indicated that psychological relational contract is significantly related to affective commitment and psychological transactional contract have significantly negative relation with affective commitment.

Key Words: Psychological contract, Relational Contract, Transactional Contract, Affective Commitment

1. Introduction

This study is focused upon identification of relationships between psychological contract and affective commitment. Psychological contract is a relatively new stream of academic research dealing with psychological connotation of organizational employees toward relationship with the organization or employer. Generally psychological contract are of two types i.e. relational and transactional contracts. Relational contracts are associated with emotional interactional dimensions of employees and employers while transactional contract explain the economic exchange relations. The dimensions of psychological contract are basically derived from equity theory (Adam, 1965) and social exchange theory (Blau, 1964). According to these two streams individual relationships depends upon input outcome evaluation of the relationship if the input outcome ratio of the individual perceived to be unequal inequity exit, which may lead to breach of the contract depending upon the perceived magnitude of inequity.

Organizational commitment is basic requirement for an organization to be successful. Organizational commitment can be define as individual's identification with and involvement in an organization three types of commitment i.e. affective, continuous and normative commitment (Meyer & Allen, 1991). However focus of this study is affective commitment. This study evaluates the role of psychological contract types (relational and transactional contract) on affective commitment.

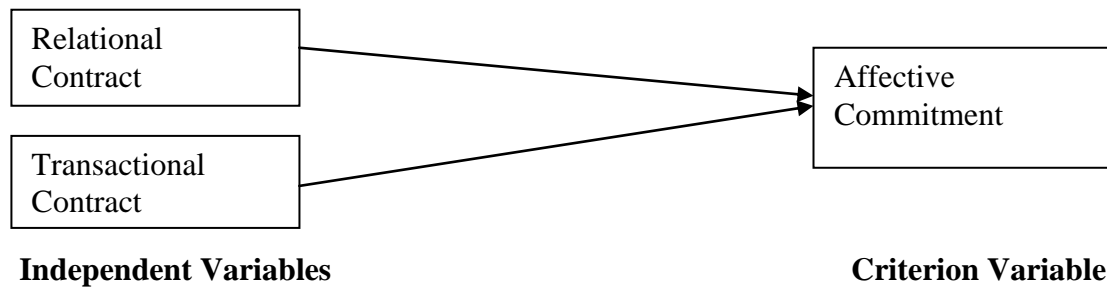


Figure 1 : Model

2. Psychological Contract

Psychological contract is defined as a person's perception and expectations about the shared duty in an employment exchange relationship (Rousseau, 1990). Psychological contract is some thing that is beyond or more then expectation. Psychological contracts are personal and idiosyncratic (Rousseau, 1990). The psychological contract is unwritten and non verbal expectation of employees and employers (Schein, 1978). Psychological contract is a relationship of the mutual obligation between employee and employer (Rousseau, 1989). Each individual hold his different perception of mutual obligation under the contract (Robinson, Kraatz & Rousseau 1994). For the complete understanding of this concept they embedded the concept of obligation in context of social exchange theory and relate it with psychological contract. The social exchange relationship accentuates the obligation and recognition of employees with in the organization (Cropanzano, Rupp & Byrne, 2003). Psychological contracts define the terms of the social exchange relationship (Blau, 1964; Holmas, 1961) that exists between individuals and their organizations. Literature suggests that employees seek to maintain equity between the costs and benefits of such relationships (Adams, 1965). Thus, employees who experience psychological contract violations will, in turn, decrease the contributions that they make to their organizations (e.g., Robinson et al., 1994). The concept of psychological contract is interesting because of perceived breach and the feeling of violation (Raja, Johns, & Ntalianis, 2004). Perceived breach illustrate a cognitive appraisal about completion of contract based on employees expectation that what each side has promised and provided to other (Morrison & Robinson 1997). MacNeil's (1985) state that there are two types of contract. One is transactional contract and the other is relations contract.

The relation contract is of open ended agreement not only economic base but also includes socio-emotional exchange like the loyalty, security and trust (Rousseau 1990; Rousseau & McLean Parks 1993; Robinson et al., 1994; Raja et al., 2004). Generally in relational contract firm hire individuals and train them in order to meet future needs (Miles & Snow 1980). Rousseau (1990) argues that in relational psychological contract employees want to make a long term relationship with their employers or organization. The employee's relation with the firm changes with time. The organizations that have strong culture, the employees of such organizations are committed and have low turnover intention (Rousseau, 1998).

Transactional contracts are economically based and short-term oriented (Morrison & Robinson, 1997). Transactional contracts are money-oriented and very short period of time (Raja at al., 2004; Rousseau, 1990). Employees show agreeableness to work overtime to give high levels of performance for contingent pay and to give notice before leaving and have no faith and loyalty with the employers or organization (Rousseau, 1990). Rousseau

argues that those with transactional psychological contracts are characterized as having “high competitive wage rates and absence of organizational commitment” generally organization acquires individuals for specific purpose in order to meet current requirements (Rousseau, 1990). The employees experiencing contract violation are more likely to report having a transactional contract (Robinson et al., 1994).

3. Affective Commitment

Kanter (1968) defined the term cohesion commitment as “the attachment of an individual’s fund of affectivity and emotion to the group”. After her Likerwise (1974) define commitment as “partisan, affective attachment to the goals and values, and to the organization for its own sake, apart form its purely instrumental worth”. The strength of a person identifies attachment with its organization (Mowday, Steers & Porter, 1979).

Affective commitment is explained by Mayer and Allen (1990), according to them “Affective commitment refers to the employee’s emotional attachment to, identification with, and involvement in the organization”. In affective commitment employee wants to remain with the organization (Meyer & Allen, 1991). The employees those are more committed like to remain in an organization try their best for organizations goals (Mowday et al., 1982; Meyer, Allen & Smith, 1993). There are four antecedents of affective commitment personal characteristics, structural characteristics, job related characteristic and work experience (Mowday et al., 1982). Personal characteristics include demographic variables such as age, sex education, and tenure are linked to commitment (Angle & Perry, 1981). Organizational structure some what relates to affective commitment (Gisson & Durick 1980). In contrast with others antecedent work experience have significantly related to affective commitment. Commitment develops after experience of employees (Mayer & Allen 1991). Literature gave strong support of affective commitment and facets of work experience like equity of reward distribution (Rhodes & Steers 1981), organizational dependability (Steers, 1977), organization support (Davis-LaMastro, 1990), autonomy (Colarelli, Dean, & Konstans, 1987), performance based rewards (Brooke et al., 1988), participation in decision making (DeCotiis & Summers, 1987) and opportunity of expansion(O’Reilly & Chatman, 1986).

Affective commitment is strongly correlated with outcome. Meta analysis by Meyer et al (2002) proves that affective commitment negative correlated to turnover , absenteeism , stress , work-family conflict, work cognition and positive correlated to job satisfaction, job performance, organizational citizenship behavior, organizational justice and transformational leadership. Mayer & Allen (1997) also suggest to other form of the commitment continuance and normative commitment.

4. Psychological Contract and Affective Commitment

Psychological contract (relational and transaction) were related to organization commitment (Millward & Hopkin, 1998). Affective commitment relates to emotional attachment with the organization (Allen & Mayer, 1990). Mayer et al (1991) suggests that an influenced by the extent to which the individuals’ expectations about the organization are coordinated by their actual experiences. This clearly links with the perceived reciprocal obligations of the psychological contract (Robinson, Kraatz & Rousseau, 1994). Previous literature has established the relationship between psychological contracts and organizational commitment (Millward and Hopkins, 1998; Raja et al., 2004; Rousseau, 1990; Richard et al., 2008).

5. Relational Contract and Affective Commitment

Relational contract based on socio-emotional components like commitment and trust (Robinson, Kraatz & Rousseau 1994). Employees with relational contract perform well while the employer helps them for their future career growth (Cavanaugh & Noe 1999).

Relational contract relate positively to organizational commitment (Millward & Hopkin 1998). Relation contract is significantly related to affective commitment (Raja et al., 2004; Richard et al., 2008). On the basis on these studies this study purposed the hypothesis. Hypothesis 1: Relational contract will be positively related to Affective Commitment.

6. Transactional Contract and Affective Commitment

Transactional contracts are economically based and short-term oriented (Morrison and Robinson, 1997). Transactional contract are money-oriented and very short period of time (Raja at al., 2004; Rousseau 1990). Rousseau 1990 argues that those with transactional psychological contracts are characterized as having high competitive wages but absence of organizational commitment. Transactional contract is negatively related to the organizational commitment (Millward & Hopkin, 1998). Transactional contract are negatively related to affective commitment (Raja et al., 2004; Richard et al., 2008). On the basis of these work this study purposed following hypothesis.

Hypothesis 2: Transactional contract will be negatively related to Affective Commitment.

7. Methods

7.1 Sample and procedure

The sample is consisting of employees working in four well established private sector organization located in Pakistan. It included three branches of a bank, two textile sector companies; research access was gained through personal and professional contacts. Surveys were distributed to employees working clerical or higher-level positions designated, trained people in their respective organizational units. Covering letter explaining the scope and purpose of study. We distribute 250 questionnaires. 115 went to banks(response, response rate,)135 went to textile sector of Faisalabad, overall, form 250 questionnaires, unstable received responses are 123,. After sorting out 109 questionnaires were used with (43.6) percent response rate.

The respondents had a mean age of (32) years and (97) percent male, Mean tenure with the organization was (3.7) years. Education span ranged form high school to PhDs, with (6) percent of the respondents having high school certificate and remaining (94) percent having university education.

7.2. Measures

7.2.1. Psychological Contract

Psychological contract was measured using Millward and Hopkins (1998). 18 items used by Raja et al (2004) relational contract and transaction was measured 9 items each. Response were made on five –point scale ranging form 1= ‘strongly disagree’ to 5= ‘strongly agree’. A sample item for relational contract is “I have a reasonable chance of promotion if I work hard” and the sample item for transactional contract is “My loyalty to the organization is contract specific”. Cronbach’s alpha for relational contract was (.759).and for transactional contract was (.740)

7.2.2. Affective Commitment

Affective commitment was measured using Meyer and Allen's (1991) eight-item scale. Responses were made on a seven-point scale ranging from 1= ‘strongly disagree’to 7 = ‘strongly agree’. A sample item is: ‘I would be very happy to spend the rest of my career in this organization’. Cronbach's alpha for this scale was (.813).

8. Results and Discussion

Reliabilities analysis, descriptive statistics and means of variables are presented in table 1. The mean for transactional contract was 2.94 (s.d. = 0.658) and for relational contract was

3.64 (s.d = 0.578).these values are consistent with results by (Raja et al., 2004), they reported mean of (2.63) with standard deviation (0.52) for transactional contract and (3.74) with standard deviation (0.53). The correlation between these contract types for Raja, Johns and Ntalians are (-.15) while for this study the value was (.12).

[Insert Table 1 here]

Table 2 shows the bivariate correlation between the variables, correlations result shows that relational contract(hypothesis 1) correlate with affective commitment by (.21) which shows significant association between these two variables, and transactional contract (hypothesis 2) correlate with affective commitment by (-.16) which shows negative significant association between two variables.

[Insert Table 2 here]

8.1. Regression Analysis

8.1.1. Relational Contract

The hypothesis 1 predicts that relational contract will be positively related with affective commitment, to test this predictions we regressed relation contract with affective commitment (table 3). Regression results shows that relational contract will significantly related with affective commitment (Beta =.21) and it was a significant predictor of relational contract, these results strongly supporting our Hypothesis 1.

8.1.2. Transaction Contract

The hypothesis 2 predicts that transactional contract will be negatively related with affective commitment, to test this prediction we regressed transactional contract with affective commitment (Table 3). Regression results show that transactional contract will significantly predict affective commitment (Beta = -.16) and it was a significant predictor of transactional contract, thus these results also supporting our hypothesis 2.

[Insert Table 3 here]

9. Future Research directions

Although this research based on psychological contract and affective commitment, this model should be tested with other outcome such as job performance, job satisfaction, creativity, burnout, organizational citizenship behaviors and turnover intention. Furthermore possible moderating variable and mediating role affective commitment should be investigate in relation contract types and different behavioral outcomes. Although same model with cross-sectional and longitudinal context can be empirically tested in different cultures.

10. Conclusion

The main purpose of this research is to identify the relationship between psychological contract types and affective commitment. Doing this, we found a significant positive relationship between relational contract and affective commitment, these results show that employees with high relational contract and high socio-emotional exchange relation with the organization show more affective attachment with the organization. Hypothesis 2 predicted that transactional contract is negatively related with affective commitment, we found significant negative relationship between transactional contract and affective commitment, these results show that employees with high transactional contract do not show more affective attachment with the organization.

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Annexure

Table 1: Descriptive, Means and Reliabilities

Variables	Alpha	Mean	Std. Deviation
Transactional contract	.740	2.9492	.65864
Relational contract	.759	3.6444	.57886
Affective commitment	.813	5.0254	.81229
Age	---	31.34	.501
Gender	---	1.23	.426
Qualification	---	3.4932	.60377
job nature	---	2.53	.973
Tenure with current Organization	---	3.72	.640

1= Male, 2= Female, job nature ranges from 1, “clerical and secretarial,” to 5, “upper management.”
Qualification ranges PhD” form 1, “Metric” to 5,

Table 2: Correlations

		Transactional Contract	Relational contract	Affective Commitment
Transactional Contract	Pearson Correlation	1	.12	-.16*
	N	109	109	109
Relational Contract	Pearson Correlation	.12	1	.21**
	N	109	109	109
Affective Commitment	Pearson Correlation	-.16*	.21**	1
	N	109	109	109

**Correlation is significant at the .001 level (2-tailed)

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

Table 3: Results of Regression Analyses Psychological Contract and Affective Commitment

Affective Commitment			
Predictors	B	R²	ΔR²
Step 1			
Control Variables		.01	
Step 2			
Relational Contract	.21**		
Transactional Contract	-.16*	.14	.11**

N = 109. Only organization was controlled in analysis and used as control variables*

**Correlation is significant at the .001 level (2-tailed)

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

An Empirical Analysis of the Impacts of Exports and Foreign Direct Investment on Economic Growth in South Asia

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Abstract

This paper intends to examine the impacts of exports and foreign direct investment (FDI) on economic growth of South Asian countries namely Bangladesh, India, Pakistan and Sri Lanka. The present study using secondary data ranging from 1980 to 2009 and simple log linear regression model. The method of least squares has been applied as an analytical technique for parameters estimation. Overall results found are statistically significant and also support the study hypothesis. Findings of the study indicate that the impacts of exports and foreign direct investment during the study period are statistically significant. Thus, findings of this study proposes that the policy makers of each country of South Asia should diversify the country's exports to enlarge exports volume and increase FDI inflows because it have the potential of accelerating economic growth in the future of South Asian economies.

Keywords: Exports, FDI, Economic Growth, Regression analysis, South Asia

1. Introduction

Globalization provides enormous benefits and offers an exceptional opportunity for less developed countries to achieve faster economic growth through trade and investment. It is known to all that from the last few years, the linkage between trade, investment and economic growth have received extensive attention from academics and management authorities. Obviously, goal of the every state and international community is to boost economic development and reduce poverty. In this regard most of the researchers and particularly developmental economists aim to examine the relationship between exports, and economic growth and the differences between export promotion and import-substitution industrialization has been a subject of much interest in the development literature. The significance of exports is clear from the classical economists to the modern economists and they all are of the view that trade is equivalent to an engine of economic growth. Comparative advantage theory of international trade says that when a country has some specialty in a product, so that country needs to produces more and more of that product due to it comparatively cheap production and the country would be gain more from trade. Trade is considered a vehicle for the transmission of new ideas, advanced technology, and managerial skills (Azam, 2010). There are many reasons of the importance of trade because through export sector more profit can be earned and saving can be increased as well. Moreover, export sector creates foreign exchange earnings and can solve the foreign resource constraints up to desirable level. Foreign trade in general plays a crucial role in country's economic growth and development. It has seen that exports while, mostly manufactured exports are highly employed intensive and enhanced level of exports creates jobs opportunities for workers directly engaged in the production with the export sector. Aurangzeb, (2006) stated that exports contribute directly to national income growth and it is an important component of GDP. Export is among the most important sources of foreign exchange earnings that ease the pressure on the

balance of payments and generate employment opportunities. It is also stated that the exports sector contributes to GDP growth more than other sectors contribution. Though, a number of factors have contributed to rapid growth in Asia. However, the World Bank (1993) reported, that the major factors are, among others, open economy in the sense of export oriented policy and FDI - led growth, market friendly government, high levels of domestic saving and accumulation of human capital. It has proved that export has been increasing much faster than GDP in most countries and as a result, their contribution in GDP is comparatively larger now than almost three decades ago. Indeed, for some less developed countries exports are the key factor of production, apart from some agricultural sector and from basic services. For instance, some oil producing countries use oil receipts to purchase everything else they need (i.e., from food to manufactured goods). Reimer (2002) and Winters et al., (2004) described many important linkages between trade liberalization and poverty reduction, like the price and availability of goods, factor prices, government transfers, incentives for investment and innovation, evolution of terms of trade, and short-term risk. Many poor people are working in the agricultural sector, where trade distortions are particularly high. Liberalization could imply higher world agricultural prices and could raise activity and remunerations in this sector in the Third World. The same beneficial outcome could also occur in the textiles and wearing apparel sectors, where protection remains high and less developed countries have a comparative advantage. Huan (2009) stated that the relationship between foreign trade and economic growth has been studied by many economists, when foreign trades come into being. Gradually with the development of foreign trade, it has been the debate of economic research in academe due to foreign trade impact on economic growth. The appearance of foreign trade and its development were closely related with economic growth to some extent. It is important to mention that foreign trade indeed boosts economic growth of a country

Export that is surplus of goods is a legal process of selling goods or products from one country to the rest of the world. Obviously, the development of any country not only depends upon exports only but it can play an important role in the promotion of economic growth, when exporting of various products in to other countries. According to a survey on "Exports Country 2010" ten countries are recorded the world largest producer during 2009 are such as China, Germany, USA, Japan, France, Netherland, Italy, South Korea, and United Kingdom. The details are as China ranked on the top and the largest trading nation in the world and earned revenue of US\$ 1.2 trillion in 2009. China major export consists of industrial outputs and i.e., mining and ore processing, iron and steel, aluminum, coal, machinery, automobiles and other transpiration equipment including rail cars, electronics and toys etc. Germany ranked the world's second top exporter with US\$1187 billion exports during 2009. The major exports of Germany are wind turbines and solar power technology. United States ranked the third largest exporter and also the largest importer of goods with revenue from exports was US\$ 994.7 billion during 2009. USA major exports consist of electrical goods and nuclear energy, liquid natural gas, sulphur, phosphates and salt. Likewise foreign direct investment (FDI) is equally important for the promotion of economic growth and considered a vibrant tool for employment generation, technological advancement, improving social welfare and poverty alleviation especially for the developing countries of the world. World Bank (2003) reported the several recent studies concluded that FDI can promote the economic development of the host country by helping to improve productivity growth and export. The importance of FDI in the process of economic development is of particular relevance because they bring in some specific

technological assets that are not immediately available in the recipient country (Chiara and Sasidharan 2009).

Table 1: ASEAN and South East Asia: FDI inflows in Selected Countries (2008 to 2009)

(US \$ Million)

Country Name	2008Q1	2008Q2	2008Q3	2008Q4	2008	2009Q1
Cambodia	224	272	186	133	815	87
China	27414	24974	21986	18022	92396	21777
Hong Kong	19588	14806	11097	17513	63004	11792
India	14197	11891	8782	6684	41554	6258
Indonesia	1460	2040	1921	2498	7919	-63
Korea Republic	-674	-212	1633	1454	2201	-63
Lao People's Democratic Republic	72	37	55	64	228	58
Malaysia	1045	5342	256	1410	8053	828
Pakistan	983	2104	1117	1234	5438	691
Papua New Guinea	13	-51	6	2	-30	359
Philippine	266	434	555	265	1520	44
Singapore	8266	3649	3561	7246	22722	3220
Salomon Island	15	19	18	23	75	17
Taiwan Province of China	597	1107	989	2739	5432	263
Thailand	2959	2230	2545	2357	10091	2324
Vanuatu	7	9	3	14	33	5

Source: *World Investment Report (2009), Chapter II Page 51*
 - Q means Quarter

According to the World Investment Report (2010) data presented in Table 1 demonstrates that FDI inflows into China ranked on the top with US\$ 92396 million in 2008 and in the first quarter of 2009 it was US\$ 21777 million. On the basis of FDI inflows Hong Kong ranked on second with US\$ 92396 million FDI and in the first quarter of 2009 it was US\$ 11792 million, followed by India with US\$ 41554 million in 2008 and US\$ 6258 million in the first quarter of 2009.

According to Economic Survey of Pakistan (2009-2010) data given in Table 2 depicts that overall GDP growth rate have been decreased during 2009, if compared with the previous year growth rates except China with 10.4 % growth rate is the highest in the world. In ASEAN countries Indonesia growth rate estimated 2.5% which is comparatively good in the region, while such as in South Asia Bangladesh growth rate with 5.0% is on the top followed by India with 4.5 and Pakistan 2.8% growth rate respectively.

Table 2: Comparison of Regional Real GDP Growth (%) 2001 to 2009

Years/Region	World GDP	USA	Developing Countries				ASEAN				South Asia			
			China	Hong Kong SAR	Korea	Singapore	Indonesia	Malaysia	Philippines	Thailand	Bangladesh	India	Pakistan	Sri Lanka
2001	2.5	0.8	7.5	0.5	3.8	9.4	3.8	0.3	1.8	2.2	4.8	4.8	1.8	-1.5
2002	3	1.9	8.3	1.9	7	-2.4	4.4	4.1	4.3	5.3	4.9	4.4	3.1	4
2003	4	3	9.3	3.2	3.1	2.2	4.9	5.3	4.7	6.9	5.4	7.5	5.1	5.9
2004	5.1	4.4	9.5	8.1	4.6	1.4	5.1	7.1	6.1	6.1	5.4	7.3	6.4	5.2
2005	4.3	3.6	8.5	4	4	8.7	5.5	6	4.7	5.6	5.5	6.7	8.4	5.3
2006	5.1	2.8	10.8	7	5.2	8.4	5.5	5.8	5.4	5.2	6.5	9.8	5.8	7.7
2007	5.2	2	10.4	6.4	5.1	7.8	6.3	6.3	7.2	4.9	6.3	9.3	6.8	6.8
2008	3.2	1.1	10.8	2.5	2.2	1.1	6.1	4.6	4.6	2.6	5.6	7.3	4.1	6
2009	-1.3	-2.8	10.4	-4.5	-4	-10	2.5	-3.5	0	-3	5	4.5	2.8	2.2

Source: *Economic Survey of Pakistan (2009-2010)*

2. Literature Review

The available literature shows foreign direct investment itself may contribute to recipient country economic growth, by enhancing the country's capital stock, introducing complementary inputs, inducing technology transfer and skill acquisition, or increasing competition in the domestic industry. Agrawal (2000) investigated the impact of FDI inflows on GDP growth of South Asian countries includes India, Pakistan, Bangladesh, Sri Lanka and Nepal, used time-series cross-section data from 1965 to 1996. The study found that since 1980, FDI inflows contributed more to GDP growth in South Asia than did an equal amount of foreign borrowing. This suggests that FDI is preferable to foreign borrowing. FDI inflows could promote GDP growth by providing additional employment in a labour surplus economy and by improving technological know-how and human capital. Obviously, the benefits of FDI are not unknown to the developing countries. Brooks and Sumulong, (2003) stated that FDI provides many economic benefits to the recipient countries by providing capital, foreign exchange, advanced technology, competition and by enhancing access to foreign markets. It is argued that FDI can also encourage local investment and innovation. However, it has been noted that still majority of the developing countries operate in the low-level equilibrium trap, that is low savings rate, followed by low investment rate and therefore, low per capita income growth rate, may escape from the trap by importing capital from abroad in the form of foreign direct investment.

Athukorala (2003) stated that FDI is assumed to benefit a poor country like Sri Lanka, not only by supplementing local investment, but also in terms of employment creation, transfer of technology, increased domestic competition and other positive externalities. Though Sri Lanka offers attractive investment opportunities for multinational companies and has adopted various investment friendly policies to enhance FDI into the country and the country seems indeed to offer perhaps one of the most moderate FDI regimes in South Asia region. Chen and Findlay, (2003), reported that it is critical to analyze the relationship between trade, FDI and economic growth for Asian economies in order to provide evidence as to whether fast economic growth in the region is driven by trade and

FDI, or whether there is mutual impact between growth, trade and FDI. Such an investigation can explore the degree to which the positive linkage between trade, FDI and growth is due to the fact that trade and FDI encourage growth, and to what extent this positive linkage reflects the fact that growth leads to trade and FDI. Balamurali and Bogahawatte (2004), examined the relationship between FDI and economic growth of Sri Lanka for the period 1977 to 2003 by considering relationship between real gross domestic product, FDI, domestic investment and openness of the trade policy regime. The result indicates that FDI has strong influence on economic growth and there is bidirectional causality between FDI and economic growth.

Liwan and Lau (2007), analyzed empirically the relationship between export, inflation, investment and economic growth for three ASEAN countries namely Indonesia, Malaysia, and Thailand. The result indicated that exports have a positive impact on economic growth in general. Mottaleb (2007), found that countries with larger GDP and high GDP growth rate and maintain business friendly environment with abundant modern infrastructural facilities, such as internet can successfully attract FDI and FDI on the other hand, significantly affect economic growth of a country. Further, FDI can play important role in achieving rapid economic growth in the developing countries. The fact is that FDI mostly flows towards the developed countries and only a small portion of FDI flows to a limited number of developing countries. Thus, most of the developing nations almost fail to attract a handsome amount of FDI inflows.

Rahman and Mustafa (1997) conducted study on 13 Asian developing countries for different time periods due to the data availability in order to evaluate the linkage between real GDP and exports. The study found cointegration between the real GDP and the export for all countries. Alici and Ucal (2003) used quarterly data from 1987:1-2002:4 and concluded uni-directional causality running from export growth to output growth. Taban and Aktar (2008), examined the export-led growth hypothesis and used quarterly time series data for the period from 1980:1-2007:2 in Turkey and found that the hypothesis support that there is a long-run and short-run bidirectional causality relationship between export growth and real GDP growth in Turkey. Xiaohui et al., (2009), described that despite the increasing role of FDI in economic development, very limited research has been carried out on the causal links between trade, FDI and economic growth in Asian economies. The study used data from 1970 to 2002 for the nine economies and the results revealed two-way causal connections between trade, inward FDI, and growth for most of the sample economies. Khaled et al., (2010), analyzed the relationships between export and economic growth in Libya by using time series data for the period from 1980- 2007. The results found reveals that income, exports and relative prices are cointegrated and further the study result indicates that the export promotion policy contributes to the economic growth of the country.

It is concluded from the available literature indicates that there are various factors effecting economic growth of a country but this study focuses only on the impact of exports and FDI on economic growth. Further, available literature provides the details information of the positive or negative impacts of these explanatory variables on economic growth, which makes the problem more understandable.

3. Objectives of the Study

The study has the following broad objectives;

- i. To highlight the significance of export and foreign direct investment in the economic development of the selected developing economies of South Asia.
- ii. To evaluate empirically the impact of export and foreign direct investment in economic growth of the selected developing economies of South Asia.
- iii. To suggest some appropriate measures for the encouragement of exports and FDI in order to bolster economic growth in light of the study findings.

4. Hypothesis of the Study

The following are the study hypothesis;

- i. The first hypothesis is that the greater (less) the level of exports, the more (less) would be economic growth and therefore, impact of exports on economic growth of the country is expected to be positive.
- ii. The second hypothesis is that the greater (less) the level of FDI inflows, the more (less) would be economic growth and therefore, impact of FDI on economic growth of the country is expected to be positive.

5. Methodology Procedure and Data

5.1 Analytical Framework

The methodology involves estimating an econometric model and applied the method of least squares, as well as simple calculations such as average and percentage. The model to investigate the impact of exports and FDI on growth for South Asia, for this purpose the study follows a simple production function, with slight variables differences. For each country separate equations have been analyzed and the method of least squares has been used. In equation (1), the variable A captures the total factor productivity of growth in output. The model uses in this study also used by (Agrawal, 2000; Athukorala, 2003; Balamurali and Bogahawatte, 2004; Taban and Aktar, 2008). The starting point of model formulation is;

$$Y = f(A, FDI, EXP) \text{ ----- (1)}$$

Accordingly, the estimating equation used in this study is;

$$Y = b_0 FDI^{b_1} EXP^{b_2} \mu \text{ ----- (2)}$$

Equation (2) can be written in linear form as;

$$Y = b_0 + b_1 FDI + b_2 EXP + \mu \text{ ----- (3)}$$

Where

Y = gross domestic product (GDP) (in log form)

FDI = foreign direct investment (in log form)

EXP = Exports (in log form)

μ = stochastic error term

The coefficients b_1 and b_2 are the output elasticity with respect to FDI and EXP. The explanatory variables and error term (μ) followed the least squares assumptions.

This study is based on secondary data and seeks to identify the magnitude of the impact of exports and FDI on economic growth. Annual data ranging from 1980 to 2009, taken from world development indicator (various issues) have been utilized. For empirical results derivation, E.View statistical software has utilized.

6. Results and Discussion

The detail of empirical results presented in Table-3. Table 3 shows that almost results for all South Asian countries included in this study are statistically significant. Results strongly support the study hypotheses. Further, Table 3 shows that the impact of explanatory variable export found positively significant for all South Asian countries. For Bangladesh export is significant at 1% level of significance, for Pakistan export is significant at 10% level of significance and for Sri Lanka export is significant at 1% level of significance. The coefficient size of export variable found 0.526097, 0.756124, 0.097653, and 0.599319 for Bangladesh, India, Pakistan and Sri Lanka respectively. The coefficient of exports also shows it elasticity of the respective variables. Results reveal that due to promotion of exports, economic growth of each country would increase. The present study also found FDI positively significant at 1% level of significance for Bangladesh and Pakistan, while for India it's insignificant and in case of Sri Lanka though it is significant but with unexpected negative sign.

Comparing results of this study with the previous studies, the positive significant of explanatory variable exports on economic growth also has been found by (Liwana and Lau 2007; Taban and Aktar, 2008; Huan 2009; Khaled et al., 2010). Likewise, the impact of explanatory variable FDI on economic growth has been found positively statistically significant by (Agrawal 2000; Chen and Findlay, 2003; Balamurali and Bogahawatte, 2004; Mottaleb, 2007; Huan 2009; Xiaohui et al., 2009). Meanwhile, results of the previous studies strongly support results of the present study.

Table 3: OLS Estimates from 1980 to 2009

	Bangladesh	India	Pakistan	Sri Lanka
Dependent Variable: GDP				
Method: Least Squares				
Total observations=30				
Y=22.21577+b ₁ 0.053982+ b ₂ 0.526097				
Y=21.17949+b ₁ 0.186364+ b ₂ 0.756124				
Y=17.10144+b ₁ 0.180273+ b ₂ 1.500421				
Y=13.04507 +b ₁ -0.301667+ b ₂ 0.599319				
Variables	Coefficients	Coefficients	Coefficients	Coefficients
FDI	0.053982 (3.02339)*	0.186364 (1.10152)	0.773353 (8.53953)*	-0.301667 (-1.88867)***
EXP	0.526097 (5.56562)*	0.756124 (0.92970)	0.097653 (1.70790)***	0.599319 (10.4910)*
C	22.21577 (169.9084)	21.17949 (11.29656)	3.99368 (6.71224)	13.04507 (12.3116)
R-squared	0.946113	0.517171	0.987536	0.803813
Adjusted R-squared	0.942121	0.481406	0.986612	0.789280
S.E. of regression	0.108296	0.794142	0.137014	0.299616
Sum squared resid	0.316657	17.02786	0.506864	2.423787
Durbin-Watson stat	1.597739	1.369069	0.480438	0.857119
Mean dependent var	24.29020	26.76814	14.32266	23.10233
S.D. dependent var	0.450144	1.102769	1.184170	0.652699
F-statistic	237.0221	14.46022	1069.598	55.31178
Prob(F-statistic)	0.000000	0.000054	0.000000	0.000000

Note: Values in parentheses are t-statistics.

Asterisk * and *** shows significant at 1% and 10% level of significance respectively.

7. Conclusion and Policy Implications

This paper seeks to indentify the impact of exports and foreign direct investment on economic growth and their respective role in the promotion of economic growth in South Asian economies namely Bangladesh, India, Pakistan and Sri Lanka respectively. Certainly, every country has its own economic parameters and a structured economic

system having its different own unique characteristics and features. Tough, there are a numbers of quantitative and qualitative factor effecting economic developments and growth of a country but this study focuses only on the impact of exports and FDI economic growth. The study utilizes data ranging from 1980 to 2009. It has been observed that broad benefits of the export sector are such as creates foreign exchange earnings and can solve the foreign resource constraints up to desirable level. In addition, mostly manufactured exports are highly employed intensive and enhanced level of exports creates jobs opportunities for workers directly engaged in the production with the export sector. Likewise, foreign direct investment is equally important for the promotion of economic growth and considered a vibrant tool for employment generation, technological advancement, helps in poverty alleviation, improving social welfare especially for the less developed countries of the world. There are a positive linkage between exports, foreign direct investment and economic growth and it has confirmed through previously empirical studies. Results of the study indicate that the impacts of exports and foreign direct investment during the study period are statistically significant. It is concluded that exports and FDI are not the only two factors of economic growth in South Asia but can play an important role in bolstering economic growth. Thus, findings the study proposes that the policy makers of each country of South Asia needs to diversify the country's exports and enlarge exports volume and also increase FDI inflows because it have the potential of accelerating economic growth in the future of South Asian economies.

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Organizational Culture as Determinant of Employee Commitment; Evidence from Pakistan

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Abstract

Organizational culture strongly affects the commitment of employees with the organization. Good organizational culture and environment of the organization bound the employees with that particular organization and result in the decrease in the turn over. Employee commitment is related with the psychology of employees, which plays an important role in the psychological sciences. Many factors of the organizational culture have direct relation with the employee's commitment. In this research, three factors have been taken which affect the employee commitment i.e. flexibility, participative environment and diversity. Four organizations have been surveyed and have taken the sample of 210 people have been taken. The study shows that the participative environment is the most influencing factor of the organizational culture while flexibility is the least influencing factor.

Key words: Employee Commitment, Employee turnover, Organizational culture.

1. Introduction

Commitment is an act of committing to a charge or trust. It is an agreement or promise to do something in the future. State or an instance of being compelled or psychologically encouraged.¹ Workforce commitment is gradually declining in and costing heavily to American businesses. Aon Consulting's 2001 workforce research, United States @Work, reports that employees turnover stress and low commitment is higher comparative to the previous five years.² Due to this reason organizations are giving great emphasis to employee commitment and are prudently heeding towards solutions to gain employee satisfaction. The relationship exists between the psychological effects of employee commitment and the other variables i.e. flexibility, diversity and participative environment. The psychological effects of employee commitment are affected by the affective commitment, normative commitment and continuous commitment. Continuous commitment is associated with the employee opportunity to leave the organization for better incentives and pays where as, the normative commitment is associated with some obligations that bound the employee to retain with the organization. The obligations may be some pressure or a force by the other employees or some personal relations with in the organization. Another factor, which affects the mental condition of the employee, is affective commitment, through which the employee is emotionally attached with the organization.

<http://www.merriam-webster.com/dictionary/coMMITMENT> (retrieved on 03.01.2010)

<http://resources.bnet.com/topic/workforce+commitment.html> (retreated on 03.10.210)

Organizational culture that has taken as independent variable includes the flexibility, participative environment and diversity. Flexibility is associated with the flexible hours provided to the employees in order to retain and create loyalty of employees with the organization. Participative environment includes the degree of participation of employees in the goal setting and other organizational decisions. Another factor which is included in the organizational culture is the employee diversity. Most of the multinational organizations use to train their culturally diverse employees in order to force them not to leave the organization.

2. Literature Review

The relationship exists between the teacher's authority and organizational commitment. A strong relationship also exists among the behaviors of employees. Perceptions of empowerment are favorably related to the commitment with the organization. Growth and status of teachers show positive association with the professional commitment, while decision making and self efficacy has positive relation with the organizational citizenship behavior [1]. Violations in diversity promise fulfillment, lead to lower organizational commitment and more elevated turnover intentions, as employees belonging to different races across organizations are more receptive in such promises. Moreover professional employees of color are more responsive towards diversity promises than that of general promises made by company agents [2]. Training and development, reward, recognition, and teamwork are positively associated with employees' commitment. Also, communication was considered to be a dominant corporate culture dimension; it was linked with major improvements in employees' organizational commitment [2]. School health nurses play a vital role in the health of children at school level. But some managers try to restrict these types of activities. Strengthen the mental filter of such school nurses' may play vital role in the commitment of such nurses with their job. There are some external factors that affect the job satisfaction and commitment of such school nurses [4]. Strong relationship exists between the job satisfaction and employee turn over. Satisfaction and commitment have reciprocal relationship. The key determinants of employee turn over are job satisfaction and commitment with the organization [5]. A relationship exists between multiple commitments (organizational commitment, occupational commitment, job involvement, and group commitment), customs, and cultural morals with organizational citizenship behaviors (OCB) and in-role performance. Ethnicity and the four cultural values (individuality/collectivity, power distance, uncertainty avoidance, and masculinity/femininity) related strongly to in-role performance and organizational citizenship behavior where culture has more impact on commitment than the difference between one country and another [6]. Strong relationship exists between age, justice and commitment forms human values theory and six workplace commitment forms (organizational, occupational, group, work, job, union). Also, individual values coupled with justice should be taken into account when considering determinants that mold commitment forms in the workplace. It enables to test the effect of individual values above and beyond the effect of important work-exchange variables such as perceptions of organizational justice [7]. Strong bond exists between the employee's psychology and commitment with the organization. Such employees which are the integral part of the organization have strong relationship and commitment with the organization. This study focuses the weak interrelationship that exists between the employees mental filters outsourced or lent by other institutions. The employees that are outsourced have low job security [8]. Employees having high quality relationships (i.e. superior-subordinate), who also worked extensively in virtual mode and demonstrated the highest levels of commitment, the job satisfaction and performance relative to those who have worked less

extensively in this mode. On the contrary, employees having lower quality relationships and work extensively in the virtual mode, demonstrated lower commitment and job satisfaction, but comparatively performed better, than those who work fewer in virtual mode [9]. Employee of restaurant can get competitive edge in service industry. If employee knows well about the service that is being performed by that employee then strong direct relation exists between the job satisfaction and commitment with the organization. Organizational support is positively associated with the job satisfaction and an employee commitment, and negatively associated with the employee will of leaving the organization [10]. Relationships exist between organizational culture, subculture and commitment where organizational subculture is more powerfully associated to commitment than that of organizational culture in a way that satisfaction with the level of control over working environment had the highest correlation with the level of commitment. Another important finding is that innovative and supportive subcultures have positive associations with commitment, while a bureaucratic subculture has a slight negative association with commitment. The results of this study have significant implications for hospital management [11]. Diversity management practices in Japanese and Korean companies have been deeply analyzed along with its impact on employee attitude at work place. The results revealed that diversity management practices have positive effects on employees' organizational commitment, which was mediated by their perception of procedural justice [12]. The nature of organizational commitment is comprised of two dimensions i.e. value commitment and continuance commitment. It was revealed in the study that Organizational tenure, retirement benefits, education, and age are dramatically correlated with continuance commitment, on the other hand felt participation, perceived prestige, job involvement, and role ambiguity were more sharply correlated with value commitment [13]. Relationship exists between the employee well-being and the commitment with the organization. Positive relationship exists between the employee's perceived value and wellbeing associated with the employee. The organizational support is negatively related to the perceived opinions for other employment options [14]. Different techniques are used to know the relationship between the psychological climate perception, motivation and performance related to the employees. There is a hurdle to understand the relation between the psychological culture and organizational culture. Psychological climate relates with the employee motivation and performance of the employee. Psychological climate of employee makes perceptions about the work environment [15]. Employee perceptions about the procedural justice and organizational politics pose strong impact on the behavior and attitude of employees. The justice and politics in the organization play an important role in the employee commitment. Fair justice and good politics of the organization lead to the good behavior of employees [16]. Organizations have a significant role to influence employee perceptions of the psychological contract where organizational culture plays a central role in the determination of psychological contract. Moreover transactional psychological contracts are negatively related to affective commitment and the employee yearly income while relational psychological contracts are positively associated to affective commitment and not related to the employee yearly earnings [17]. Strong effect of organizational culture exists between the employee trust and employee commitment with the organization. Cultural aspect of organization has increased the interest in the human resource development program [18]. Strong relation exists between the perceived support and organizational commitment. Favorable relation exists between the perceived support, intrinsic and extrinsic job satisfaction conditions and turn over of employees. Moreover relationship between the supervisor and employees are important to know the employee commitment [19]. Commitment to organization can be predicted through organizational-

level outcomes (e.g., turnover intentions), and commitment to supervisor through supervisor-related outcomes (e.g., citizenship towards supervisor) and perceived that influence of culture have less straightforward influence on two commitment forms [20]. Implicit and explicit institutionalization of ethics have a positive collision on job satisfaction, esprit de corps, and organizational commitment for marketing professionals. However, hidden ethics institutionalization is more considerable determinant of the organizational climate [21]. There are some important factors that exist between the job satisfaction and job performance. Affective commitment is one of those factors. Through job satisfaction emotional attachment increases with the organization which leads to the better performance. More over employees who have strong traditional cultures are more committed to the organization as compared to weaker ones [22].

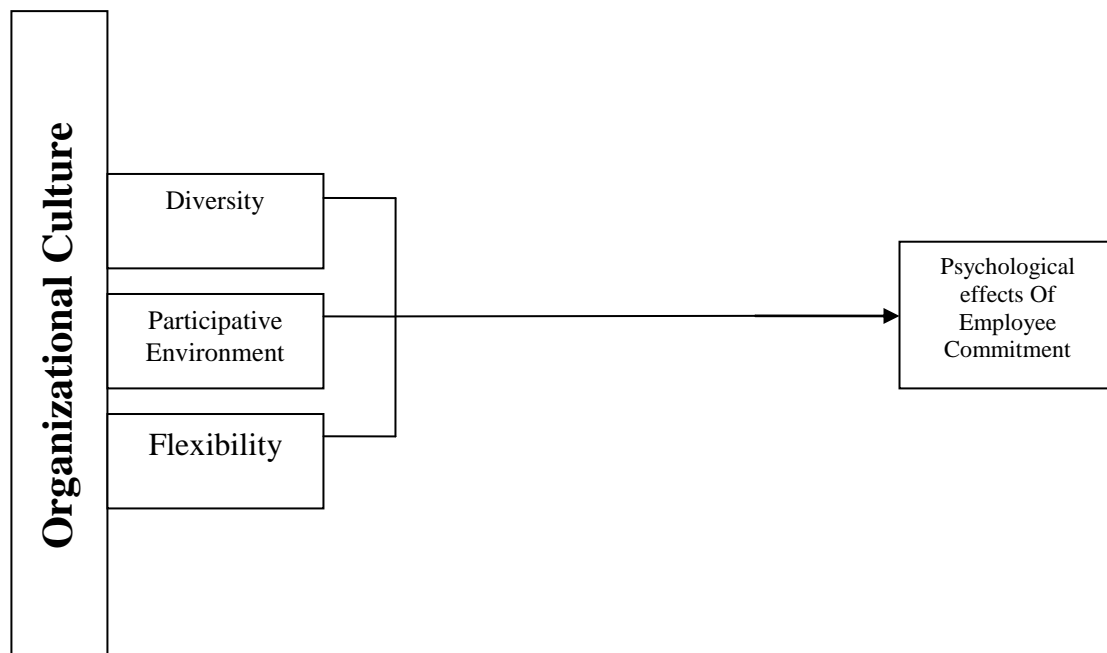
3. Objectives

The basic objective of this research is to

- i. To explore how organizational culture impact on psychological impact of employee commitment in Pakistani environment.
- ii. To provide a guideline to Top Executives and HR managers, to help managers in making strategic planning processes.
- iii. To provide a general guideline to government and organizations.

4. THEORATICAL FRAMEWORK

4.1 Model development



Model 1: Showing impact of organizational culture on psychological effects of Employee commitment

Model has been developed based on the research presented in the literature review. The model postulates the impact of three components of organizational culture on the psychological effects an employee commitment. Organizational culture can be explained in terms of flexibility, participative environment & diversity as shown in the Model.1.

4.1.1 Organizational Culture

It is termed, as a system of shared meaning having some pattern of believes symbols, rituals, myths and practices to be evolved sooner or later to make the member of an organization understand how to behave [23]. Cultural aspects are such a gigantic concept that influences the overall behavior of individuals in an organization framework (Song et al, 2009).

4.1.2 Diversity

It is mostly characterized as age, gender, and ethnicity. Now organizations are realizing diversity as a source of gaining competitive edge [24]. It differentiates from one organization to another [25]. In 21st century, the issue regarding age discrimination has been blown up due to dramatic increase in the *age* discrimination complaints. Eventually organizations are forced to learn how to effectively deal both younger and older employees [26]. As women (*gender*) is increasingly coming in the work force and is making 40% of it .they are being paid far less then men because women do not spend the same time on work as men do, that's why they them selves are also willing to accept slower career progression and lower salaries. Factors that contribute in growing diversity of workplace include *status* or dual career couples (Luthans.F, tenth edition)

4.1.3 Participative environment

It is a way to delegate employee responsibility, accountability, and authority over their work. This method facilitates employees to improve their work performance and creates a vehicle for improved communication to all areas of organization.³ *M.B.O.* emphasize in setting goals participative that are tangible, verifiable and measurable. Goals are meant to motivate the people. *Empowerment* is actually pushing decision making towards employees. More precisely, it gives freedom to make decisions about schedules and procedures to solve work related problems (Rbbins.S, eighth edition).

4.1.4 Flexibility

Flexibility provides a way to describe about how and when works get done. It defines how the careers are structured. Workplace flexibility might include traditional flexible time, *organization flexible policies* and *targets* such as complete or a lot of control over work schedule etc.⁴

5. RESEARCH HYPOTHESES

The study uses quantitative data to test hypotheses related to influence of organizational culture on psychological effects of an employee commitment. These hypotheses have been tested after profound analysis of data being gathered and supported by the described literature review. This is research proposed to explore the influence of; diversity, participative environment and flexibility with psychological effects of an employee commitment.

H₀: Diversity, Participative environment and Flexibility have an impact on psychological effects of an employee commitment.

H_A: Diversity, Participative environment and Flexibility have no impact on psychological effects of an employee commitment.

3. <http://www.unitedagainstracism.org/pages/info28.htm>. (Retrieved on 02-01-2010)

4. http://wfnetwork.bc.edu/glossary_entry.php?term=Flexibility,%20Definitions%20of. (Retrieved on 02-01-2010)

6. SAMPLING DESIGN

6.1 Sampling Plan

The overall sample plan consists of the following elements:

- i. Sample unit: The important aspect in the quantitative research is to ascertain that who are going to be questioned/interviewed. This study is primarily associated to find out the impact of organizational culture on psychological effects of an employee commitment.
- ii. Sample size: The data has been collected from 210 respondents where 23.33% were female respondents and 76.67% were male.

Organization Name		HMC Taxila	Sabro	Maruf Hospital	Fauji Cement
Number Of respondents		65	45	70	30
Gender	Male	50	31	51	28
	Female	15	14	19	02
Qualification	Matric	09	08	04	10
	Intermediate	09	02	23	04
	Bachelor	29	10	18	16
	Masters	12	23	24	04
	Others	02	01	02	02

Table 1: Sampling

- iii. Sampling Procedure: The data was collected from four different organizations i.e. Heavy Mechanical Complex Taxila, Sabro, Maruf Hospital and Fauji Cement. Non-probability and convenience sampling is used.

7. DATA ANALYSIS METHOD

Multiple regressions will be used to check the dependency of psychological effects of an employee commitment on participative environment, diversity and flexibility.

7.1 Multiple Regression Equation

$$PAEC = \beta_0 + \beta_1 (PE) + \beta_2 (D) + \beta_3 (F).$$

Where as;

PAEC= Psychological Effects of an Employee Commitment.

PE= Participative Environment.

D= Diversity. F= Flexibility.

7.2 Analysis & Interpretation

Table 2: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Variance
PEEC	1.14	5.00	3.7980	.84584	0.714
PE	2.00	5.00	3.9206	.71703	0.514
Diversity	1.00	5.00	3.7071	.87595	0.765
Flexibility	1.00	5.00	3.7060	.94059	0.883
Valid N (list wise)					

The variance for Participative environment is slightly lower than Psychological effects of an employee commitment, Diversity and Flexibility. This shows that the respondents are very far from the mean on all the variables. In nut shell, perceived PEEC and diversity are rather low but not more than flexibility. There is an average PE

Table 3: Correlations

Variable	PEEC
PE	.513
Diversity	.457
Flexibility	.343

PEEC is positively correlated to PE, diversity and flexibility indicating that with the increase in participative environment, diversity and flexibility psychological effects of an employee commitment increase. Also PE is positively correlated with diversity and flexibility. Similarly diversity is positively correlated with flexibility.

It is notable that no correlation exceeded from 0.457 indicating no doubt on the validity of the measures.

Table 4: Model Summary

R	R Square	Adjusted R Square
.600	.360	.350

In the above output R (0.600) is correlation of 3 independent variables with the dependent variable, here Interco relations between variables are taken into account. It means that 36% of the variance in psychological affects of employee commitment has been significantly explained by the three independent variables but still 64 % is unexplained.

In other words there are some other additional variables vital in explaining the psychological affects of employee commitment.

Table 5: VARIANCE ANALYSIS

	Sum of Squares	df	Mean Square	F	Sig.
Regression	53.801	3	17.934	38.592	.000
Residual	95.729	206	.465		
Total	149.530	209			

The df in the third column refers to the degree of freedom where $df = K - 1$ providing that $K =$ total number of variables. As there were four total variables thus we have $(4-1) = 3$ df. The df of residuals equals $(N - K)$, where N is the total number of respondents and K is total number of variables as mentioned above. The mean square is obtained by dividing sum of squares with its associated degree of freedom.

Lastly $F = MS \text{ explained} / MS \text{ residual}$ resulting $F = 38.592$ showing zero significance. This implies that all our null hypothesis of $H1, H2, \& H3$ is substantiated.

Table 6: COEFFICIENTS

Variables		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
	PE	.468	.073	.396	6.389
	Diversity	.301	.061	.312	4.940
	Flexibility	.036	.059	.040	.615

At the column of BETA under Standardize coefficients, the highest number in the beta is 0.396 showing the highest impact on dependent variable. It indicates that PE has the highest impact on psychological impact of employee commitment more than diversity and flexibility. Diversity has strong impact on PEEC after PE, not much flexibility.

8. Discussions and Recommendations

Of the three hypothesis testes, all is found to be proved. From the results of the multiple regression it is evident that participative environment is the most influential factor in explaining psychological affects of employee commitment. Higher the participative environment in the organization will be, higher the commitment level in employees will be created and found. Where as the least influential factor is flexibility in Pakistani environment i.e. employee commitment does not much increase or decrease with the increase or decrease of flexibility in organization.

The noticeable thing is that almost diversity has the same impact on psychological affects of employee commitment as participative environment has.

Organizations must have to pay close attention towards making more participative environment to gain more employee commitment. No doubt that PE is the most influential factor in molding psychological affect of employee commitment but the fact is that only 36% of the variance in PEEC is significantly explored. Rest of the 64% is still unexplained. In other words there are other additional variables that are significant in explaining psychological affects of employee commitment that have not been considered in this study. So further research is might be exploring more of the variances in PEEC.

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Declining Interest of Hospitality Students toward Careers in Hotel Industry: Who's to be Blamed?

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Abstract

In today's competitive global environment career educations are found to be one of the best approaches of providing individual with skills and knowledge to a specific labor market. Hospitality career education program is offering to train individuals to work in the vast sector of hospitality industry which are still requires significant amount of young trained professional This paper investigates the level of Malaysia student interest and attitudes towards career in hotel prior to making a decision of choosing the program and the extent such factors might moderate the direction and speed of change in commitment towards a hotel industry career especially during the study program. Using longitudinal approached through a questionnaire survey with repeated measured, the existence and the direction of changes occurring in students' attitudes toward career intentions in hospitality were obtained. The findings revealed that the vast majority of year-one students in particular seem to enroll in the hospitality program with inadequate knowledge and unrealistic perceptions of the employment condition in the industry. Result also demonstrates that, despite the progression through the program developing students understanding, gaining greater knowledge and insight about the industry, students are becoming slightly less positive toward employment in the hotel industry and reduced intention to pursue such career. Student became slightly less committed to a career, less keen to work and less certain that would be prepared to accept any job in order remain in the hotel industry. These weakened employment intentions highlights several important points, which should be noted and addressed by the hospitality institutions (public and private), industry and government at large if there are to be more qualified students to career in the hotel industry.

Key words: Declining, Interest, Hospitality, Students, Careers, Hotel, Industry

1. Introduction

Today's competitive global environment requires a great deal of specialized knowledge from knowing to understanding each required skill (Cheetham and Chivers. 2001; Chung 2002). Career educations are found to be the best approach of providing individual with skills and knowledge for future career to a specific labor market. One of the domains of career education program is hospitality. This career program is intended to train individuals to work in the vast sector of hospitality industry which are still requires significant amount of young trained professional (Kusluvan and Kusluvan, 2000). In Malaysia alone, the hospitality industry such as hotel and foodservice has created vast job opportunities for young graduates compared to other industries despite the series of the world unexpected events. As reported, the demands for young skill trained managers and skilled personnel exist in position at all levels particularly in Malaysia hotel sector (MHR, 2005). In fact, youth are the largest labor force represent about to 55 to 60 per cent of the total nation workforce. In an effort to keep pace with employment opportunities, there

recently been increased of public universities, colleges and polytechnics offering certificates, diplomas and degree program in hospitality. As the government alone cannot provide a sufficient supply to the industry, the private sector has also been urged to play an important role in the national development. Over the last 10 years, the number of two, three and four year hospitality program has grown rapidly. Hospitality education in fact is now playing a significant role in supporting the human resources need and development within the industry in Malaysia. At some institutions the student's enrolment has increased two fold and even higher (MOE, 2003).

Despite the proliferation of hospitality education in the country, the industry especially hotel is still facing the problem of poor transfer of fresh hospitality management graduates into the industry. This is the most critical problem to Malaysia hotel industry (Zahari et al., 2005). Many new hospitality graduates do not enter the industry upon completion of their studies. Of those who enter the industry many soon decide not to pursue a full time or long-term career. Fresh hospitality graduates only work in the hotel industry for just a few months before moving to either gain experience or through a process of trial and error seeking acceptable job in other industry (MAH, 2004: 2005). Many researchers all over the globe stated that one of the causes of poor transition rate of hospitality students into career in the industry is that new student have an unrealistic image of working life in the industry (Barron and Maxwell, 1993; 1997; Kusluvan and Kulsluvan, 2000; Zahari and Fraser, 2004). However, it is also believed that this phenomenon might also stem from others factors. This study investigates the level of Malaysia student interest and attitudes towards career in hotel prior to making a decision of choosing the program and the extent such factors might moderate the direction and speed of change in commitment towards a hotel industry career especially during the study program.

2. Literature Review

While it has been recognized for some time that the hospitality industry faces a number of issues related to its poor image (Baum,1993; Lucas and Jeffries, 1991; Sindiga, 1994; Getz, 1994; Koko and Guerrier, 1994; Dermody and Hollaway, 1998; McGinn and Binder, 1991), work stress and job satisfaction (Weatherly and Tansik,1992; Ross,1995; 1997; Pizam and Ellis, 1999; Koko and Guerrier, 1994), employee turnover (Crandall, 1992; Lam and Xiao, 2000; Leslie, 1991; Pavesic and Brymer, 1990; Chen, Chu, and Wu, 2000; Debrah, 1993; Aquino, Griffeth Allen, and Horn, 1997), one area which start to receive attention is the attitudes of young people or those individuals who are potentially likely to pursue a career in hospitality workforce in the future.

The pioneering work of Ross (1991; 1993) revealed that school leavers had positive attitudes towards potential careers and had a high level of interest in management positions in the tourism and hospitality industry. Hospitality industry was regarded as holding considerable promise for future employment and career prospects. In examining travel agency employment preferences among secondary school leavers, Ross (1997) stated that the employment was favored among potential hospitality industry employees. Getz (1994) on the other hand demonstrates that the hospitality sector was a relatively unattractive option for the high school students. The desire to pursue a career in hospitality employment had become much more negative over the 14 year period of the study. Airey and Frontisis (1997) supports Getz' work by suggesting that career support and improvement in basic hospitality education are really crucial in providing the young with a relatively broad and realistic view of career options. Comparing the attitudes of secondary students in Greece and the United Kingdom towards careers in hospitality, they identified

that the Greek students had positive attitudes towards hospitality employment. This positive view however, was tempered by their suggestion that it was in part due to the students relatively unrealistic views about careers in the industry, their limited experience as hospitality customers and the employment structure in Greece. Whereas in the UK, a better-established career support system works well in preparing the students with a realistic view of career options. Differences in students' level of experience and differences in the employment structures of the two countries played an important part in forming these attitudes.

Beside secondary school students, the attitudes of students who are studying hospitality management also received attention among the academic scholars. Charles (1992) identified the undergraduate students in the Bahamas generally have positive attitudes towards a career in hospitality and perceive the industry as exciting, stimulating and developing creativity, but dislike the potentially disruptive effect their career could have on their personal, family and social life. Their interest however appears to be decreasing after their internship experience. This finding was supported by Barron and Maxwell (1993) who compared the attitudes of undergraduate students in their induction week at the start of their hospitality management course with the students in their first week back after a period of practical training. Marked disparity view held about hospitality and the differences lie between perception and experience of the industry with new students holding positive views, whereas the more experienced students generally held negative views. On the same note, Warszyzak (1997) and Kusluvan and Kusluvan (2000) posited that students' positive attitudes toward different aspects of working in the tourism and hospitality decreased after practical work experience. Some of the factors which seemed to account for the decline in students' attitudes included job stress, lack of family life owing to the nature of the work, long working hours, exhausting and seasonal (unstable) jobs and the low social status of a hospitality job

It was identified by West and Jamieson (1990) that an increase in various exposures reduced a student's commitment to taking employment in the industry. Purcell and Quinn (1996) pointed that supervised work experience was considered as a key contributor to reducing students' level of commitment towards the industry as a career choice. Through his longitudinal study in New Zealand, Fraser (2000) ascertained that students' perceptions, aspirations and expectations along with career commitment towards hospitality employment steadily declined over time. Interestingly, such changes in perception about the chosen career were noticed among the undergraduates, Higher National Diploma, and one year certificate students in all hospitality institutions across the country. In fact, levels of commitments are not directly related to sex, qualifications, levels of industry knowledge and prior experience. He pointed out that young graduates are more likely to be seduced away from hospitality by other industries, and warned that industries will keep losing the young skilled worker if the employment practices are not altered. Pavesic and Byrmer (1990) reported that a significant number of hospitality graduates changed their job to another industry a year after graduating. Among the reasons given were: the poor pay for the hours of work, little recognition for efforts made, or lack of opportunity to progress, long hours and stress at work, as well as not receiving acknowledgement of qualifications gained.

Despite the above notion, many commentators still believe that the future success of the hospitality industry may well depend on its ability to attract and retain the young and new college graduates into the industry (Jayawardena, 2001; Sciarini and Wood, 1997; Purcell

and Quinn, 1996). In considering the level of student interest in the hospitality program, Davidson and Tideswell (1998) found that job and industry factors like career prospects and interest were the number one determinant of choice in selecting a hospitality program among undergraduate students across all institutions in Australia. Similarly, Hobson (1995) reported that due to industry growth many students especially in the Asian countries of China, Indonesia, Thailand, Singapore and Malaysia have started to choose hospitality program. Ineson (1996) suggested prior industry knowledge should be considered an important criterion in the selection of students for vocational degrees and if such assessment is undertaken, it may lead to the likelihood of successful completion of the program.

It must also be recognized that not all students are necessarily accepted into the program solely on the basis of long term interest, but rather on other factors. It may also be that some students made a later decision to select the hospitality program without knowing about the industry. Okeiyi, Okeiyi, and Bryant (1998) made a comparison of students' attitudes from three predominantly black universities and one predominantly white university. The white American students were significantly influenced by career prospects, while black Americans looked at the number of black minority students enrolled in the program in their decision to select a hospitality program. Bloomquist (1998) reported that a large number of students in her study indicated that they had a career interest in hospitality while they were in high school, but decided to enroll in the program after arriving at the university in which the program was located. Although, both studies did not identify how realistic was the students' interest or the relationship of their interest to working in the industry, the result supported the evidence that because of limited resources being applied early in education process, students may not have the necessary preparation and knowledge to pursue their preferred career (Jarvis, 1994).

Based on aforementioned reports, the educational factors were not found to be ranked as highly important as compared to job factors by the students. It could be argued that the educational determinants may have been taken for granted, as many studies focused on students who were already at university, rather than before they enrolled in the program. However, Barron (1997) reported that half of his respondents chose the particular university because they received an offer and because of the good reputation of the university. O' Mahony, McWilliam and Whitelaw (2001) also identified that a substantial number of Australian students chose hospitality program based on the reputation and availability of a particular course of study rather than career interest. In fact, more than half their respondents chose to attend college even before choosing a career. This is in line with Hing and Lomo (1997) who identified that many students enroll in hospitality program having a vague idea of their goal, hoping that during their study program they will gain a better understanding of management issues, their future aspirations and career opportunities.

3. Methodology

A longitudinal approach through a questionnaire survey using repeated measured was chosen for this study. This procedure would enable to determine the existence and the direction of any changes occurring in students' attitudes toward career intentions in hospitality. As reported, the current total new enrolments in Malaysia hospitality program (public and private institutions) are exceeding 1000 students per year. With twice yearly intake researchers found difficulty in investigating the whole sample of population. To

follow several intakes from several years of each program would also be too costly and result in the entire study extending by a further year for each extra year's intake. With that constraint, only one group of diploma students from three levels of hospitality study program (first semester of first year, second and third year students) was chosen as a sample and they are followed through one year period. Three public or government funded hospitality institutions with several branch campuses and six private institutions have been selected as the study setting.

With regard to style and type of questionnaire format, closed ended questions using a numerical seven point Likert scale form was opted to give more refinement option to the respondents. In line with that the survey questionnaire was divided into three sections. Section A was designed using nominal scales and focused on students' demographic background such as gender, ethnicity and level of study program. Section B is created to identify and measure levels of agreement of various factors related to hospitality program and educational aspects. A total of fifteen items were used for students to report their levels of agreement. Twenty-four items were used in Section C to examine students' level of interest, career intention and commitment toward the hotel industry career and changes over time of individual students.

The survey was conducted in two stages. In the first stage, a questionnaire was administered during the orientation / first week of the semester commencing in January 2007 in selected institutions. This was immediately prior to the final year students (year 3) going out for their six months practical experience. The timing of this round allowed the collection of data representing a preliminary picture on student attitudes, intention and commitment towards a career in the hospitality industry. For the second stage, the process was repeated in January 2008 using the same instrument. The process would thus allow measurement of the extent and direction of change in attitudes about and commitment to students' chosen careers. The data from the second round would obviously include the effect of any supervised work experience or other experience (e.g. part time work) students may have undertaken during the semester break or in the evenings or weekends. Without any obvious problems, seven hundred sixty one (761) useable questionnaires were collected from all institutions in both rounds. The high response rate is attributed to the controlled nature of the classroom environment for the administration of the questionnaire in both rounds. Both rounds dataset were easily matched without any major difficulty.

4. Results

4.1 Respondent Profiles

From the data collected, female students are much more highly represented (57.2 per cent) than male students (42.8 per cent) in both categories of institutions. Nevertheless, the distinctions between proportions of gender across all levels of the program in both institutions are not considered very large and fit closely the gender balance and the population of interest. Overall, the proportions of females to males could be typified as a 60:40 split. This proportion is in line with ratio of student population in most of higher institutions in Malaysia. It also appears that both female and male students give an equal importance to gaining their academic qualifications and completing the program in which they are enrolled. With regard to ethnicity, Malays dominated the student population in public hospitality institutions in this sample with 70.0 per cent compared to 30.0 percent

of other ethnic groups. Conversely in the private institutions Chinese represents the higher number with 57.7 per cent compared to Malay at around 29.9 per cent, Indian around 8.7 per cent and other ethnic groups around 3.7 per cent. Based on the level of program, 274 students are in the first year with 265 in the second year and 222 students in third year.

5. Analysis

Before identifying the potential causes of any change in the career interest of hospitality students with regard to their intention to pursue a career in the hotel industry, attention was first given on the differences, which may exist between students in public and private institutions. This analysis was to establish whether the data from public and private institutions need to be treated as two distinct populations or they effectively a homogenous group. The Independent - sample t-test was used for all items comparing the perceptions of male versus male student in the public and private institutions. A similar approach was also applied to female respondents. Result show that the differences were mainly related to program aspects rather than attitudes about industry in general. There is no clear evidence to believe that male and female respondents in public and private institutions are different population. The responses from both institutions therefore were treated as a homogenous group.

With that, further analyses are divided into two parts. In the first part, analysis of all responses together using the paired sample t- test procedure was undertaken. The intention was to determine the existence of a decline in students' interest in the hospitality industry. The levels of significance identified by paired sample t-test procedure are shown in the tables by mean of bolding and asterisk. The second part provides a greater in-depth analysis of the sub-groups of the sample. This was undertaken to further identify possible causation and the extent that the underlying differences and direction of changes of career attitudes are common among respondents in different years of the study programmes. One -Way ANOVA with Scheffé *post hoc* procedure were used to identify what significant differences exist between the levels of the study programme. Again, matched paired sample t-test procedure was also used to identify statistically significant changes. Where significant differences were identified from this procedure the second round group mean is bolded. The level of significance is indicated as; * = $p < 0.05$; ** = $p < 0.01$; *** $p < 0.001$. However, the means scores derived from by paired sample t-test are not reported. Inspection by the researcher of the ANOVA results confirmed that while the means often differ from those of the paired sample t-tests, the differences are not numerically large or almost the same.

5.1 Educational Aspects

The result in Table 1 shows that respondents somewhat agreed with most of the items related to the hospitality program in the first round. However, their perceptions and level of agreement slightly weakened over a period of time. This can clearly be seen as they started to express themselves as somewhat agreeing that they were satisfied with the offer of a place in the institutions (5.36). Over the second round, this item trends down with the decline to 4.75 and being statistically significant ($p < 0.001$). A similar pattern of decline occurred on items relating to respondents believing that 'whatever they learn will be useful in their future career' (5.80 decreasing to 5.36; $p < 0.001$), 'happy training to work in the hotel industry' (5.45 decreasing to 5.28; $p < 0.01$) and 'a hospitality course provides a nurturing and caring environment' (5.14 decreasing to 4.38; $p < 0.001$) and ' a hospitality course offer more practical skill training than academic work' (5.25 decreasing to 5.00, p

< 0.05). These results may indicate that at the start more students especially the ones new to hospitality courses are keen or anxious to learn and have a positive attitude that the programs are worthwhile for their future career. However, after a period of time they are slightly less happy with the programs than they were before.

Respondents also reported that they somewhat agreed with the items of using a hospitality course as a stepping-stone to advance into a management program and slightly disagreed that they chose the course because of no other options. This in fact accords well with the idea that some students may have entered hospitality management programs without having first chosen their career, or having only a vague idea about the world of work in the hotel industry. However, over time they may have realized they already know a lot and have discovered how little real use the course has been for their career intention. This probably best explains the statistically significant decline of the mean scores from 5.36 to 5.13, $p < 0.05$ for the former and increased from 3.79 to 4.58, $p < 0.05$ for later item.

Statistically significant change is also shown in regard to the item dealing with students' prior knowledge about the hotel industry before choosing the course, with mean scores declining from 4.36 to 3.89 ($p < 0.001$). This seems to show that students have come to realize that their general knowledge of the hotel industry was very limited before enrolling in the program. On the other hand, this result supports the argument that the students' decision in hindsight may have been less informed than they had realized. It is probable that further information and exposure during the year played a major part in this shift. Whether this was a result of formal classroom experience, changes in personal experience or general maturation will be discussed further in the cohort analyses.

One of the most interesting results is from the item dealing with the opportunity to study overseas. Although there was only a very small numerical increase in the mean score in the second round, the change distribution is strong enough to be statistically significant (4.45 increasing to 4.81; $p < 0.01$). This slight shift shows that more students as they progress believe that by taking a hospitality program they have greater chances of advancing their study abroad. This result, in fact, fits the reality that most Malaysian students and their parents perceive that the quality of advanced hospitality education is enhanced by an overseas qualification. A large number of students were striving for a sponsor to study overseas, particularly in the western countries after they complete their diploma level. On top of that, qualifications from most of the better known institutions of higher education overseas tend to have better currency in the local employment market, particularly in the private sector where open competition prevails (Yusof, 2001).

5.1.1 Cohorts Analysis

This section explores more closely the underlying differences based on respondents' levels of study program and how they change their view over time. As shown in Table 2, there were no statistically significant differences identified within the cohorts on any of the fifteen items in both rounds of data collection. All cohorts not only held similar views at all levels of the program but they were consistently somewhat positive for all items relating to educational aspects. This also indicates that first year students are coming into educational institutions with higher expectations toward hospitality programs.

However, the changes in the mean scores in most items between rounds provide some useful insight. Of these, the more interesting perhaps is the slightly reduced rating of all year cohorts for items 'I strongly believe that whatever I learn in this course will be useful in my future' and 'hospitality provide a more nurturing and caring environment than other

courses'. For example, first year student slightly altered their perception that hospitality provides a nurturing and caring program with the mean score decreasing from 5.44 to 5.20, $p < 0.05$. Further statistically significant changes over time are noted related to items dealing with 'satisfied with the offer of a place on the hospitality course' and 'hospitality course offer more practical skill training than academic work' with significance level at $p < 0.05$. A shift took place with mean scores consistently declining for all cohorts from the first to the second round. These probably reflect students' initial anxieties and courage with subsequent realization that the course is relatively demanding and involves more physical work with the combination of practical and academic work.

Statistically significant changes from first to second round is also shown in regard to the items dealing with students' prior knowledge about the hospitality industry before choosing the course, with mean scores declining for all cohort ($p < 0.05$) and influenced by the glamorous image of chef career (mean scores increased for all cohort with $p < 0.05$). This seems to show that students have come to realize that their general knowledge of the hospitality industry was very limited before enrolling in the program. However, this argument should only hold true for first year students given that second year and third year students are all more experienced than first year, and given this item relates to a time before entry into the program. Consequently, the average ratings between the second year and third year students should be stable as they had already been in the program for at least a year or more. Nevertheless, examination of the mean reveals that the third year students had the least decline in mean score in most of the items in this section. This fits well with the idea that these groups were experienced and more knowledgeable and perhaps had well formed expectations about educational program compared to those in first and second year. An alternative explanation is that these students' views have simply stabilized more during their studies. On the other hand, this result also indicates that the first year students in particular may have been less informed prior to entry into the program.

Another interesting result perhaps related to the item whether examination results only qualified respondents for a hospitality course. The interest lies in the fact that the differences are not consistent between rounds. All cohorts were undecided with this item in the first round. However, the scores reversed in the second round with all cohorts agreeing with the statement. This can be clearly seen through the increased of the mean scores from 4.01 to 4.50 for the first year, 4.07 to 4.54 for the second year and 4.23 to 4.64 for the third year with significant level at $p < 0.05$. This is further supported with the increased of rating for second year and year three in item relating to choose the course because of no other options ($p < 0.05$). This fit the notion that some students enrolled into hospitality program not because of their long career interest or career choice but probably depend on their secondary school examination (SPM) or was offered the course.

5.2 *Level of Interest and Commitment toward Career intention*

With regard to level of interest and commitment of respondent toward career intention, of all twenty-four items asked in this section, nineteen items were found to have statistically significant changes over time. Among items assessing respondents' level of interest, five appear to have declined in the mean scores and are statistically significant. Such items are;

- I am still keen to work in the industry as when I first chose this training program (5.17 decreasing to 4.71, $p < .001$)
- I am very satisfied with my choice of career in hotel (5.27 decreasing to 4.95, $p < 0.01$)

- I think hotel provides greater promotional opportunity than other industries (5.11 decreasing to 4.60, $p < 0.001$)
- I believe the hotel industry provides more employment opportunities than other industries (5.16 decreasing to 4.63, $p < 0.001$)
- Hotel industry give brighter career development as many people told me (5.24 decreasing to 4.23, $p < 0.001$)

From looking at the pattern of the mean scores of the items listed, it appears clear that students reported themselves as somewhat positive and having an interest in the hotel industry by giving a more favorable evaluation at the commencement of the first round. Their interest, however, was not consistent over one year period and became less certain, with a slight downward shift occurring in the mean scores. The reasons for these changes are unclear. It could be that a large proportion of first year and second year students saw themselves as knowing a lot more about the industry than they did before.

As there were a high number of females in the overall responses, they would be to disagree that men have more opportunity than women in the hotel industry. These assumptions were supported in the first round. However, they are rather more open in the subsequent round by somewhat agreeing that men have more opportunity (3.96 increased to 4.84; $p < 0.001$). Similarly to item of disallow females employees of wearing full scarf or “tudung”. The mean scores increased in the second round from 4.52 to 5.00, $p < 0.05$. Nevertheless, no evidence could be given of the trend at this point and will be explored further in the cohort analysis.

With regard to career intention for future employment in the hotel industry, respondents perhaps more or less in the second round anticipated how hard the work would be (5.16 increased to 5.26; $p < 0.05$), therefore becoming less committed to a career in hospitality (5.19 decreased to 4.67; $p < 0.001$), being less keen to spend most of their working life in the hospitality industry (4.77 decreased to 4.50, $p < 0.001$), ready to take a job in another industry even slightly offer less money (4.88m increased to 5.20, $p < 0.01$, less definite to work for long in the hotel industry (6.11 decrease to 3.78, $p < 0.001$) and will only work for few years (4.70 increased to 5.89, $p < 0.001$). This is further supported by less certainty to stay in the industry (5.74 to 5.11, $p < 0.001$) and a dramatic decline in willingness to accept any job in order to remain in the industry (4.61 to 4.50, $p < 0.001$). It is believed that if the time gaps between both rounds were much longer, a greater decline in intention could be expected and may have reduced the mean scores extremely. These changes may also suggest that students, especially the juniors started to acquire more realistic facts about career and employment conditions in hotel and realized it involved a lot of effort. This impression may have affected their views and somewhat altered their perceptions towards employment in the industry, thus they are giving a more reasonable evaluation of their current thoughts about the industry.

5.2.1 Cohorts Analysis

On cohorts' analysis, results of One – way ANOVA revealed that eight out of twenty one items showed statistically significant differences between students in different level of study program. Apparently, by means of Scheffé multiple comparison tests, the differences found were mostly between first year and year three. Of particular items, first year students placed a greater level of agreement (5.69, $p = .015$) than the second year (5.67) and third year students (5.50) on item ‘hotel is an exciting and challenging

environment to work in'. First year students also started out giving somewhat higher ratings to wanting to work in the industry for the whole of their life (4.85, $p = .041$) compared to (4.61) for second year and (4.41) for third year), keen to work in the industry (5.17, 5.05 and 5.01 respectively, $p = .000$), being committed to a career in hotel (5.29, 5.22 and 5.09 respectively, $p = .013$), will accept almost any job to stay in hotel industry (4.82, 4.60 and 4.50 respectively, $p = .029$) and believing their effort will be well rewarded (5.50, 5.30 and 5.29 respectively, $p = .023$). They were also stronger in their belief that the hotel industry provides more employment opportunities than other industries (5.25, 5.16 and 5.06 respectively, $p = .015$) and willing to stay in the industry if it provides them with best career option (5.68, 5.66 and 5.70 respectively, $p = 0.18$) and believing that hotel industry give brighter career development (6.03, 5.37 and 4.94 respectively, $p = .000$).

Nevertheless, these differences were eroded over the period of the research as all cohorts decreased their rating such that mean scores became more similar in the second round. This change resulted in no statistically significant differences between the cohorts. As there is no consistent pattern exhibited between other cohorts, the initial differences among first year students in the first round are considered temporary. From these outcomes, it seems that first year students at entry to the hospitality programs while having somewhat differing views adjust to fairly common perceptions with the seniors.

While there is an absence of any statistically significant differences in the second round, there is a clear pattern of change that suggests progressively reduced career interest. This can be seen through the changes in the patterns of mean scores between rounds. Although, all cohorts are still positive in their views they consistently show significant decreases in their ratings for a majority of items. The clearest identification of this pattern can be found in the declining ratings for items related to expectations to work in hotel most of their working life ($p < 0.05$), being committed to a career in hotel ($p < 0.01$), willingness to stay in hotel industry if it provides the best career option ($p < 0.05$) and being less sure about accepting almost any job to stay in the hotel industry ($p < 0.05$). In fact, this was further supported by the fact that year three had the greatest decline in mean scores about hotel providing greater promotional opportunities and their keenness to work in the industry with the shift being statistically significant ($p < 0.05$)

In addition, students especially among the third year students are signaling quite clearly their much higher likelihood of switching to another industry when money is involved. This perhaps best explains the increased of the mean scores for the item ' ready to take a job in another industry if it offer slightly more money ' and 'working only a few years in the industry' for third year students in the second round ($p < 0.05$). This is at least partially explained this group reporting an increased belief that hotel industry work is involves harder work ($p < 0.05$).

Another interesting result from this analysis is dealing with the issue of wearing "head scarf / tudung" among the females' employees in the hotel industry. There was increased in the mean score in the second round and the change distribution is statistically significant (from 5.29 increasing to 5.40 for first year, from 5.37 increasing to 5.50 for second year and from 5.52 increasing to 5.89, $p < 0.01$). This shift shows that more students especially among the females believing that by employment in the industry they are not allow of wearing " head scarf / tudung" especially in the customers contact area. This result, in fact, fits the reality in some hotel organization in Malaysia, which disallows their females' Muslim employees of wearing such attire.

6. Discussion and Conclusion

From the overall result, it is evident that vast majority of students at the start of their program show an explicit desire to enter the hospitality industry. However, there is a very clear picture emerged in this study that growing up or maturation process and increased more exposure in the programs, developing understanding and gaining greater knowledge and insight about the industry, student are becoming less positive toward the hotel as a long term career option. Students became less committed to a career, less keen to work and less certain that would be prepared to accept any job in order remain in the hotel industry. This notion is supported as the changes are strongly occurs among the final year student who had undergone practical experience in the hotel industry. In addition, the issue of attire “scarf or tudung” among the females’ employees, lack of interest at entry of the program may also cause weakened employment intentions among the hospitality students. These weakened employment intentions have given varying consequences and implications for the students, hospitality institutions, industry and government.

On the student’s part, they may feel that the course fails to meet their expectations and they experience disappointment with their career choice and feel disenchanting with their future in the industry and prospective employment. This is not to say that educational experience itself is wasted, as the individuals probably end up clearer as to what they want out of life. However, students may also feel that their parents' investments of money in their education, along with the effort and time spent for personal skill development during the three years of study have not been worthwhile. Further, this may affect their motivation to entry into the industry is less motivated.

Another wider implications are those related to the industry in general. Students having negative attitudes towards certain aspects of industry employment may result in industry being unable to recruit and retain sufficient qualified hospitality management graduates. Finally, government funding through taxpayer dollars on higher hospitality education may have been used inefficiently if it is being inappropriately allocated to individuals who do not take up their place in the industry, unless there is no discrepancy between students’ reduced but still positive attitudes toward hospitality employment.

The above scenario highlights several important points, which should be noted and addressed by hospitality institutions (public and private), Ministry of Higher Education, Ministry of Tourism and Industry at large if there are to be more qualified students to career in the local hotel industry. On the part of educators, they should concentrate on findings way of engendering more realistic perceptions of the industry among the new students to at least moderate the potential levels of cognitive dissonance. This can be done, for instance, dissemination of more frank information about the nature of the industry work through a session of practical orientation prior to commencement of the program. This could also be achieved by seminar introducing working life in the industry using industry personnel (ex- students). By doing these, it would at least help students to form more realistic and lower expectations with regard to hotel job, so that they may feel less disappointed as they progress through the program.

Public hospitality institution should be allowed to re- use the interview process as a screening measure to select more suitable candidates for the hospitality program to at least prevent the program decision being based on chance rather than choice. Thus, the current student selection system practices for public higher tertiary education, which determined by Centre Unit of University, should be supplemented by interviews organized by the

faculty. The same approach should also be adopted in certain by private institutions. In order to increase students interest, public and private institutions also should re- activate academic missions for all faculties together with Ministry education and school counselors to educate the potential students and parents especially in rural areas secondary schools to understand more thoroughly the types of career potential in the industries. This can be done through a forum, seminar, career day or other means.

On the part of Ministry of Education, more vocational secondary schools focusing of on hospitality related study and other skill-based courses should be built more to early nurturing the potential candidates. By doing this, more qualified students with positive attitudes will pursue their study in hospitality program and continuing intention towards career in the hotel industry. Finally, on the matter of attire (head scarf or tudung) for Muslim females' employees, it is essential for hospitality institutions, Ministry Education, Ministry of Tourism and industry practitioners to discuss this serious issue for the benefit of the nation to at least some decent dressing code could be developed. In sum, it is strongly believe that developing such a commonality of approach the missions of the government in producing more qualified graduates' involvement in the local and international hotel industry will be achieved.

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Table 1 : Overall mean scores, standard deviation for rating of items in Section B of the questionnaire, reporting the level of agreement on the educational aspect in the first and second round of data collection

Items	First round			Second round			t-value	Sig 2 tail
	n	M	S.D	n	M	S.D		
I was very satisfied with the offer of a place on this hospitality course	761	5.35	1.32	761	4.75	1.47	5.525	.000***
I am happy to tell others that I am training to work in hotel	761	5.45	1.37	761	5.28	1.25	2.503	.003**
The glamorous image of hotel career influenced to take this course	761	4.72	1.34	761	3.93	1.37	6.812	.000***
I strongly believe that whatever I learn in this course will be useful in my future career	761	5.80	1.31	761	5.36	1.17	4.191	.000***
I strongly believe I knew enough about the hotel industry before I chose this course	761	4.36	1.53	761	3.89	1.47	3.916	.000***
I think hospitality courses offer more practical skill training than academic work	761	5.25	1.37	761	5.00	1.21	2.241	.026*
My interest in hotel industry comes from my upbringing	761	4.92	1.68	761	4.52	3.62	-2.256	.079
I will use this course as a stepping stone to enter into an advance management programme	761	5.36	1.25	761	5.13	1.47	-1.765	.047*
My SPM result only qualified me for this course	761	3.75	1.90	761	4.07	1.74	1.998	.054
I chose this course because of opportunities to study overseas	761	4.75	1.62	761	4.81	1.49	-2.040	.005*
Hospitality course provide more nurturing and caring environment than other courses	761	5.14	1.29	761	4.38	1.36	2.823	.000***
I choose this course because I don't have any other option	761	3.79	1.12	761	4.58	1.63	1.911	.017*
If I do not get a job as a result of doing this course, getting formal education will still worthwhile	761	4.83	1.10	761	5.00	1.00	-3.390	.117
I choose this course because it is the easiest	761	2.31	1.00	761	2.67	2.19	-4.410	.090
I enrolled in this course because it easy to get job	761	5.28	.098	761	4.43	1.69	-2.637	.076

Note: 1. Scales 1 = Totally disagree, 7 = Totally agree
 2. Mean scores and standard deviation are based on matched from paired sample t- test.
 3. Significant differences (changes) are indicated as * p < 0.05; ** p < 0.01; *** p < 0.001 and are bolded

Table 2: Items in section B of each round of data collection where statistically significant differences between different

levels of program were identified, the mean scores and level of significance.

Items	Yr	n	First round (mean)	Sig	Second Round (mean)	Sig
I was very satisfied with the offer of a place on this hospitality course	Y 1	274	5.29	.798	5.09*	.758
	Y 2	265	5.48		5.29*	
	Y 3	222	5.59		5.29*	
I am happy to tell others that I am training to work in the hotel	Y 1	274	4.54	.107	4.15	.271
	Y 2	265	4.27		4.22	
	Y 3	222	4.39		4.12	
The glamorous image of chef career influenced to take this course	Y 1	274	4.67	.054	4.08*	.302
	Y 2	265	4.21		4.04*	
	Y 3	222	4.30		4.23*	
I strongly believe that whatever I learn in this course will be useful in my future career	Y 1	274	6.08	.313	5.73*	.057
	Y 2	265	5.82		5.63*	
	Y 3	222	5.91		5.50*	
I strongly believe I knew enough about the hotel industry before I chose this course	Y 1	274	4.35	.055	3.84*	.220
	Y 2	265	4.18		4.09*	
	Y 3	222	4.60		4.43*	
I think hospitality course offer more practical skill training than academic work	Y 1	274	5.29	.109	4.81	.062
	Y 2	265	5.36		4.92	
	Y 3	222	5.38		4.90	
My interest in hotel industry comes from my upbringing	Y 1	274	4.45	.057	4.14	.058
	Y 2	265	4.28		4.04	
	Y 3	222	4.67		4.27	
I will use this course as a stepping stone to enter into an advance management program	Y 1	274	3.42	.099	3.45	.061
	Y 2	265	3.77		3.94	
	Y 3	222	3.76		4.01	
My SPM result only qualified me for this course	Y 1	274	4.01	.058	4.50*	.449
	Y 2	265	4.07		4.54*	
	Y 3	222	4.23		4.64*	
I chose this course because of opportunities to study overseas	Y 1	274	4.62	.759	4.47	.614
	Y 2	265	4.56		4.50	
	Y 3	222	4.45		4.38	
Hospitality course provide more nurturing and caring environment than other courses	Y 1	274	5.44	.065	5.20*	.073
	Y 2	265	5.14		5.08*	
	Y 3	222	5.13		4.98*	
I choose this course because I don't have any other option	Y 1	274	3.82	.220	3.70	.086
	Y 2	265	3.99		4.48*	
	Y 3	222	3.67		4.51*	
If I do not get a job as a result of doing this course, getting formal education will still worthwhile	Y 1	274	4.64	.068	5.07	.423
	Y 2	265	4.79		5.11	
	Y 3	222	4.92		4.96	
I choose this course because it is easiest course	Y 1	274	2.26	.949	2.69	.352
	Y 2	265	2.26		2.40	
	Y 3	222	2.29		2.92	
I enrolled in this course because it easy to get job	Y 1	274	2.62	.629	4.14	.246
	Y 2	265	2.50		4.31	
	Y 3	222	2.29		4.32	

Note: 1. Statistically significant different between level of program shown in "sig" are based on ANOVA procedure

2. Statistically significant changes between round are based on paired sample t- test and level of significant are asterisk (* = p < 0.05; ** = p < 0.01; ***= p < 0.001)

3. Mean scores derive from paired sample t- test are not reported

Table 3 : Overall mean scores, standard deviation for rating of items in Section B of the questionnaire, reporting the level of agreement on level of interest and commitment toward career intention in the first and second round of data collection

Item	First round			Second round			<i>t</i> -value	Sig 2 tail
	<i>n</i>	<i>M</i>	<i>S.D</i>	<i>n</i>	<i>M</i>	<i>S.D</i>		
I strongly believe men have more opportunity to get ahead than women in the hotel industry	761	3.96	1.82	761	4.84	1.70	-6.095	.000***
I am committed to a career in hotel	761	5.19	1.18	761	4.67	1.38	4.978	.000***
I expect to work in the hotel industry most of my working life	761	4.77	1.44	761	4.50	1.48	6.431	.000***
I expect this course will only qualify me to do a specialised job in the hotel industry	761	4.35	1.61	761	4.25	1.44	.828	.408
I will stay in this industry if it provides me the best career option	761	5.74	1.07	761	5.11	1.29	6.434	.000***
Disallow females employees of using “tudung” affect my career progression in hotel industry	761	4.52	1.51	761	5.00	1.40	-.816	.034*
Being raised in a religious family background does not affect hotel career success	761	4.93	1.59	761	4.95	1.46	-.185	.853
I will accept almost any job to stay in the hotel industry	761	4.61	1.57	761	4.50	1.40	4.685	.000***
The hotel industry is an exciting and challenging environment to work in	761	5.68	1.10	761	5.12	1.31	5.446	.000***
I will readily take a job in another industry if it offers slightly more money	761	4.88	1.43	761	5.20	1.33	-2.720	.007**
I am still as keen to work in the industry as when I first chose this training programme	761	5.17	1.20	761	4.71	1.35	4.696	.000**
I am very satisfied with my choice of career in hospitality	761	5.27	1.27	761	4.95	1.23	3.156	.002**
I don't really mind which industry I work in, as long as the job is interesting	761	5.34	1.43	761	5.23	1.34	.546	.111
At the time I decided to train for hospitality there were other occupations I could have easily chosen	761	4.84	1.39	761	4.81	1.34	.262	.794
Jobs in the hotel industry involve harder work than I previously realised	761	5.16	1.26	761	5.26	1.23	-.911	.024*
Religious beliefs will help career progression in hotel	761	4.33	1.57	761	4.63	1.38	-2.483	.014*
If I put a lot of effort into my hotel career I will be well rewarded	761	5.41	1.21	761	4.93	1.28	4.689	.000***
I think hotel provides greater promotional opportunity than other industries	761	5.11	1.49	761	4.60	1.31	4.423	.000***
I believe the hotel industry provides more employment opportunities than other industries	761	5.16	1.32	761	4.63	1.46	5.198	.000***
Hotel industry give brighter career development as many people told me	761	5.24	1.41	761	4.23	3.05	21.740	.000***
I definitely work for long in the hotel industry	761	6.11	1.11	761	3.78	1.46	8.23	.000***
I will work for a few years in this industry	761	4.70	2.25	761	5.89	1.00	8.628	.000***
I will change my career	761	4.28	1.63	761	4.22	1.35	.973	.000***
I am not really interested to work in hotel and might find job in other industries	761	4.14	1.84	761	4.08	1.81	.920	.435

Note: 1. Scales 1 = Totally disagree, 7 = Totally agree

2. Mean scores and standard deviation are based on matched from paired sample t- test.

3. Significant differences (changes) are indicated as * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ and are bolded

Table 4: Items in section C of each round of data collection where statistically significant differences between different levels of program were identified, the mean scores and level of significance.

Items	Yr	n	1 st (mean)	Sig	2nd (mean)	Sig
I am committed to a career in hotel industry	Y 1	274	5.29	.023	4.98*	.408
	Y 2	265	5.22		4.72*	
	Y 3	222	5.09		4.66*	
I expect to work in the hotel industry most of my working life	Y 1	274	4.85	.041	4.57**	.313
	Y 2	265	4.61		4.35**	
	Y 3	222	4.96		4.20**	
I expect this course will only qualify me to do a specialised job in the hotel industry	Y 1	274	4.41	.565	4.36	.215
	Y 2	265	4.30		4.22	
	Y 3	222	4.25		4.12	
I will stay in this industry if it provides me the best career option	Y 1	274	5.68	.018	5.37*	.734
	Y 2	265	5.66		5.26*	
	Y 3	222	5.70		5.08*	
Disallow females employees of using “tudung” affect my career progression in hotel industry	Y 1	274	5.29	.286	5.40*	.521
	Y 2	265	5.37		5.50*	
	Y 3	222	5.52		5.89*	
I will accept almost any job to stay in the hotel industry	Y 1	274	4.76	.009	4.57*	.783
	Y 2	265	4.75		3.98*	
	Y 3	222	4.40		3.87*	
The hotel industry is an exciting and challenging environment to work in	Y 1	274	5.69	.015	5.53	.181
	Y 2	265	5.67		5.10	
	Y 3	222	5.50		5.05	
I will readily take a job in another industry if it offers slightly more money	Y 1	274	4.92	.694	5.09	.117
	Y 2	265	4.84		5.05	
	Y 3	222	4.76		5.12*	
I am still as keen to work in the industry as when I first chose this training program	Y 1	274	5.17	.000	4.94	.284
	Y 2	265	5.05		4.76	
	Y 3	222	5.01		4.60*	
I am very satisfied with my choice of career in hotel industry	Y 1	274	5.26	.173	5.23	.379
	Y 2	265	5.24		4.92	
	Y 3	222	5.16		4.73	
I don't really mind which industry I work in, as long as the job is interesting	Y 1	274	5.70	.423	5.26	.943
	Y 2	265	5.38		5.21	
	Y 3	222	4.92		4.78	
Jobs in the hotel industry involve harder work than I previously realised	Y 1	274	5.41	.300	5.24	.993
	Y 2	265	5.10		5.20	
	Y 3	222	5.07		5.40*	
Religious beliefs will help career progression in hotel industry	Y 1	274	4.40	.551	4.62	.972
	Y 2	265	4.33		4.64	
	Y 3	222	4.22		4.66	
If I put a lot of effort into my hotel career I will be well rewarded	Y 1	274	5.44	.171	5.10	.431
	Y 2	265	5.30		4.91	
	Y 3	222	5.16		4.88	
I think hotel industry provides greater promotional opportunity than other industries	Y 1	274	5.20	.179	5.12	.194
	Y 2	265	5.16		5.00	
	Y 3	222	5.01		4.60*	
I believe the hotel industry provides more employment opportunities than other industries	Y 1	274	5.25	.015	4.98	.164
	Y 2	265	5.16		4.68	
	Y 3	222	5.06		4.59	
Hotel industry give brighter career development as many people told me	Y 1	274	6.03	.000	5.03	.072
	Y 2	265	5.37		4.36	
	Y 3	222	4.94		4.07	
I definitely work for long in hotel industry	Y 1	274	6.07	.116	4.84	.060
	Y 2	265	5.94		3.74	
	Y 3	222	5.72		3.54	
I will work for a few years in this industry	Y 1	274	5.45	.260	4.40	.200
	Y 2	265	5.31		5.13	
	Y 3	222	5.27		5.50**	
I will definitely change my career	Y 1	274	3.67	.108	3.37	.227
	Y 2	265	4.00		4.13	
	Y 3	222	4.11		4.25	
I am not really interested to work in hotel industry and might find job in other industries	Y 1	274	3.27	.227	3.50	.306
	Y 2	265	3.57		3.67	
	Y 3	222	4.00		4.01	

Note: 1. Statistically significant different between level of program shown in “sig” are based on ANOVA procedure

2. Statistically significant changes between round are based on paired sample t- test and level of significant are asterisk (* = p < 0.05; ** = p < 0.01; *** = p < 0.001)

3. Mean scores derive from paired sample t- test are not reported

Food Security Analysis of Pakistan: Time Series Approach

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Abstract

This study examined the food security situation of Pakistan for the annual period of 1971 to 2008. To examine whether Pakistan fulfill the condition of a food secure country is far from developed in the literature. The study analyzes the Auto Regressive Distributed Lag Model to measure the determinants of food security in Pakistan. The determinants are measured along with Long run ARDL model and short run elasticity are measured with Error correction model of ARDL Approach and conclude that the situation of food security in Pakistan need drastic improvement.

Keywords: Food Security, Availability, Access, Utilization, Autoregressive Distributive Lag Model, Error Correction Mechanism.

1. Introduction

Food security means, all the people, all the time, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life¹. Food is a basic human need and scarcity of it leads any nation to internal conflict, political instability and socio economic problems. Food security is a serious and multidimensional phenomenon goes beyond production, especially in developing countries that have to import food to fulfill their domestic needs. Ensuring food security in a country captures not just production and availability issues rather access to food and its effective utilization is also a major challenge for net food importers, low income countries. Economic contraction, increased inequality, poverty, war, terrorism, conflicts, overpopulation, corruption, environmental degradation and weaknesses of policies can be some of the causes of food insecurity which may also turn into the results generated by food insecurity.

Three types of food insecurity generally exist in any country, which are: transitory food insecurity that is short time food insecurity occurs due to sporadic crises; chronic food insecurity that arises as a result of long term but not easily changed conditions; cyclic food insecurity that arises due to seasonal fluctuations. If cyclic food insecurity exist in any country for at least six months than it will be considered as chronic cyclic food insecurity and if it persist less than six months than it can be considered as transitory cyclic food insecurity.² A food secure nation will be having active and healthy people participating in the economic growth of a country and further leads the nation to prosperity. In general, food security is defined as economic access to food along with food production, food availability and effective utilization of available food. Food availability alone, therefore, does not ensure food security; access to food and its absorption are equally important. Macro level agricultural policies regarding both production and trade

¹ FAO 2008

² Hussain, Z and Waqar Akram (2008) "Persistent Food Insecurity from Policy Failures in Pakistan", *Pakistan Development Review* 817-834

influence the supply of food. Regional food supplies are affected by governmental inter-regional trade policies, seasonality, and climate. Pakistan produces wheat, rice, cotton, sugarcane, maize and other cereal in sufficient quantities. Wheat is the major food grain, followed by rice, the second most important food grain in Pakistan. Cotton is an important cash crop of the country, as it is exported in sufficient quantity both in raw form and in value added form. Rice, sugarcane, tobacco, rapeseed and mustard are also large export earners. Pakistan is the ninth largest producer of wheat, 12th largest producer of rice, 5th largest producer of sugarcane and 4th largest producer of cotton among the top producers in the world as per statistics of FY08. Despite of the high volatility in the sector, Pakistan remains the top producer of the said major crops in the world economy. As far as the productivity is concern Pakistan ranks far below with reference to its total production in world economy. It ranked 9th, 14th, 10th and 14th, among the highest yield (tones/hectare) of wheat, rice, seed cotton and sugar cane respectively in FY05³.

It reveals that Pakistan is an agricultural country and it is self sufficient in the production of major crops but despite of all these statistics Pakistan is facing food insecurity situation. According to the Global Hunger Index (GHI) prepared by the International Food Policy Research Institute (IFPRI), Pakistan is one of the most food-insecure countries in Asia. In 2009, the country was ranked 58th among 84 developing countries (India was ranked 65th). Today over 48 per cent of Pakistanis are food insecure. The number of districts believed to be facing "extreme" food insecurity has more than doubled between 2003 and 2009, while the number of food-secure districts has fallen by 14 per cent. In 2007, UNICEF concluded that half of all child deaths in Pakistan could be attributed to poor nutrition⁴. Food insecurity in Pakistan is a product of poverty and inadequate food availability. During the past two decades, 1987-2007, food poverty incidence in the country shows that about one-third of the households were living below the food poverty line and they were not meeting their nutritional requirements. The incidence of food poverty is higher in rural areas (35 per cent), than in urban areas (26 per cent). Total food expenditure, household income, family size and level of formal education of household head are the key discriminating variables between the food secure and food insecure at national level. A household is food secure when it has both physical and economic access to adequate food for all its members and when it is not at undue risk of losing such access. This definition describes three cornerstones of food security (i) Food Availability (physical access to food), (ii) Access to food (economic access to food) and (iii) Food Absorption (effective biological utilization). So, the need is to analyse food security situation of a country not just by focusing on the availability of food grains rather access and utilization of food must also be kept in a view. Under daunting circumstances and challenges, the focus of this study is to relate the three major components of food security.

2. Literature Review

There is relatively large literature that focuses the food security situation in different perspectives. As Food security is multidimensional phenomenon covering climate, disaster, civil unrest, and social norms along with food production, access and absorption. So the determinants of food security are different at different levels of application, i.e. global, national, regional, household and individual level⁵. However for conceptual

³ Ali *et al.*, (2008). Edible Oil Deficit and its Impact on Food Expenditure in Pakistan. *Pakistan Development Review*, *PSDE* 24:1-27

⁴ (AHRC article)

⁵ Khan *et al.*, (2009). Determinants of food security in rural areas of Pakistan, *MPRA paper* p- 3.

understanding and driving some meaningful determinants of the situation of food security of Pakistan, an attempt has been made to review the literature, to incorporate existing knowledge available on the problem under study. Keeping in view the objectives of the study, the relevant review of the working of the scholars has been presented here.

Mehmood, Sheikh, Mehmood (1991) examined the causes of poverty and malnutrition in Pakistan. The objective of the study was to find out the role of traditional diet patterns in malnourishment, and critically evaluate poverty indices. They used Foster and Thorbecke model to measure poverty level in Pakistan and concluded that factors behind food poverty are large household size, number of dependant and a low educational level. In terms of food deprivation 'Real poor' household have been differentiated from 'Less poor' on the bases of lower purchasing power rather than a traditional diet pattern and concluded that real poor household should be targeted in order to improve the situation. George (1994) investigates a theoretical view to the issue and examines that it is poverty that looked into the number of simultaneous measures on which food security depends. The objective of the study was to evaluate that food security is not only physical availability of food but also to assure that people have economic access to food grains, moreover to analyze the way through which South Asian countries will achieve food security during the coming decades. The measures discussed are helpful in increasing food production through technological change, population control, creating adequate buffer stock and target oriented programmes for the poor. Food production trends of south Asian countries during the last two decades were discussed through comparing the growth rates of population and food in these countries. Food Consumption of South Asian region was analyzed and established that the impact of household food insecurity is most serious among the vulnerable segments of the population. The findings exposed that the major challenge is poverty so emphasis must be on employment and income generating activities to meet the challenges in near future. The study provides only theoretical base to the issue.

Ahmed and Sadique (1995) have focused on the food security situation of Pakistan. The objective of the study was to analyze the food situation with alternative policy scenarios to target the food security of the country. Pakistan was among the countries where self sufficiency was achieved but a continuously high rate of population growth, a changing pattern of income distribution and a great level of urbanization greatly influence the demand for food grains. The constraints involve in the growth of grain production are a sharp rise in the cost of irrigation, a dramatic decline in the world price of the rice, a heavy debt burden and lack of technology and human capital development. Decade wise food situation is discussed, then base line scenario for forecasting the future food situation is presented based on the Extended Linear Expenditure System (ELES), income and prices elasticity of demand has been estimated for different crops. These estimates were based on the household- level data from the Household Income and Expenditure Survey (1987-88). On the bases of Mundlak's (1988) supply response, approach supply side estimates for area, yield and input demand function have been generated. The study concluded that that if no suitable policy measures are taken, then the shortage is expected to increase manifold in coming years so immediate action is required to avoid desperate food security situation. Anderson and Cook (1999) provided theoretical base for researchers to develop valid and reliable measures to analyzed food security situation. The objective of the study was to emphasize that sustainable livelihood is not only necessary but also sufficient condition for food security. It distinguished community food security from the concept of food security. The knowledge about CFS theory will provide best measures or indicators. So the data in a CFS assessment include measure of nutritional status, food consumption, nutrient

intake, related food practices (e.g. breast feeding, cooking practices etc), food and nutrition knowledge, educational opportunities about food quality and access. But collecting and integrating all of these types of data are infeasible and costly.

Timmer (2000) studied that Government policies towards economic growth with improved income distribution will result in food security. The objective of the study was to analyze the ways to escape the threat of hunger and famine altogether. Food security is an objective at macro level and in South Asia it seems no connection with economics. South Asian countries have to base their strategies on the Sectoral composition of income growth and food price stability, moreover growth that reach poor is described as one component of food security. Modeling the approach showed that household income determines caloric intake and these were conditional on food prices. The strategy of redistribution with growth along with large scale investments in R & D and human capital can lead to economic growth and with the increase in average income per capita hunger and famine can be escaped so on. The study could have been included micro or household dimension of food insecurity. Anderson (2001) focused on the use of modern science and technology to enhance food supply and to reduce poverty. He suggested that alternative technologies, agro ecological and research oriented approaches can be helpful in achieving higher agricultural productivity and lower production risks. The study however, lack empirical evidence to support the arguments, it provide just the theoretical framework to work on. Keenan *et al* (2001) attached the food security measures with nutrient intake. The objective of the study was to focus on the measures for assessing food security in low income populations at the individual and household levels.

The study discussed three single item indicators and broad scales those are available for measuring individual and household food security. Three single item indicators for measuring household food security include, 'the food sufficiency question', the Expanded Food and Nutrition Education Program (EFNEP), the third single item indicator is the question on concern about food security. The scale include Community Childhood Hunger Identification Project (CCHIP) hunger index. The scale comprises eight questions that indicate whether adults or children in the household are affected by food insufficiency owing to constraint resources, Second scale is Radimer/Cornell measures of food and hunger insecurity, then in recent years the most widely used scale for measuring household food security and hunger is the U.S Household Food Security scale. By using data from the 1995 CPS, an 18 items scale was developed to measure the level of food insecurity and hunger. It used Rasch model to measure the severity of food problems. The study concluded that to improve food security there is a need for measurement in these core areas such as food safety, resource management, dietary quality and environmental changes. The article discusses theoretically the instruments available to measure food security, knowledge gaps and research needs that exist in this area, thus helping to lay the ground framework for a research agenda in this field.

Singh (2002) studied the economic transformation that has occurred in much of rural Asia. The objective of the study was to discuss that sustainable development of agriculture for ensuring food security, needs a balancing role played by three crucial institutions of state, markets and civil society. Each of these institutions has to complement each other to ensure food security. Food must reach to the poor at reasonable prices for this purpose agricultural productivity has to be raised. The role of science and technology for enhancing production was discussed. Benefits and failure of Liberalization in context with agriculture and poverty alleviation were presented. Poverty, food and nutrition security were closely linked with each other. To achieve national goals of food security many

deliberations were listed e.g. raising farmers income, enhancing the role of science and technology without excluding labor force participation, involving women etc. The study presents that agriculture production must be in accordance with the increasing population, the subsidies allowed by WTO as infrastructure, roads, irrigation system are helpful for farmers and in short run will enhance productivity. The study overlooked three determinants of food security namely availability, access and utilization.

Rosegrant and Cline (2003) examined the impact of investment in research and development, infrastructure, water scarcity, climate change, HIV/AIDS epidemic on food security of a country. The objective of the study was to analyze that Climate change, HIV/AIDS, increasing water scarcity and declining investment in research and infrastructure are crucial factors affecting food security. Eradication of hunger is one of the objectives of Millennium Development Goals. To achieve the goal, sustainable policy actions are required. Collective action of Government, NGOs and local bodies is required to improve the situation. Improvement in global food security situation requires innovations in agro ecological approaches and crop breeding. So that the challenges to meet the food security goal be achieved successfully. The study provides theoretical base to the issue of global food security. Iram and Butt (2004) have examined that food security as a broad concept is related to the quality and security of food supply as well as food access. The objective of the article was to discuss the main features of the determinants of food security in Pakistan. The study used per capita calories intake as a dependent variable. While household income, availability of independent house, mother's age, mother's education, availability of piped water at house and toilet facility in house were taken as independent variables. The data used in the study was taken from Pakistan Integrated Household Survey (PIHS) 1999. Ordinary Least Square (OLS) regression was employed to estimate the determinants of household food security. The results of the study showed that mother's age, household income, access to safe drinking water has positive effect on per capita calories intake. Availability of independent house is the indication of the standard of living so it has positive impact on household food security. Unavailability of facility for the removal of human wastage within house has negative impact on calorie intake. The study concluded that calorie intake situation is better in urban areas; moreover projects should be launch having focus on food security and nutrition.

Hazarika and Khasnobis (2005) examined the children's food security in Pakistan with reference to women's intra-household bargaining. The objective of the study was to analyze the link between children's food security and women status in the household. They apply OLS model on the data taken from Pakistan Integrated Household Survey (PIHS). The proxy variables taken for women status are mother's education, mother's work for wages, mother's age at first marriage, and age difference between mother and child's father. The study concluded that women's status in the household has positive effect on children's food security. Walaga and Hauser (2005) examined the role of organic agriculture in achieving food security. The objective of the study was to discuss the causes of food insecurity in different parts of the Uganda, moreover to analyze the role of organic strategies and mechanisms to address food insecurity. Organic agriculture is an approach that sustainably intensifies and economically specialize agricultural production while placing emphasis on social mobilization. It was argued that household food insecurity is a function of unavailability of food, inaccessibility of food and improper utilization of food. Overall the results concluded that to achieve more balanced food security outcome Integrating organic mechanism is most useful to achieve food security through organic agriculture. Arif (2007) evaluated the agriculture and food security situation of Pakistan.

The objective of the study was to present the concept of food security and took an overall review of the agriculture sector in the context of Pakistan. It showed that one-third of the households were living below the food poverty line and they were not meeting their nutritional requirements during 1987-2007. The study concluded that food security has basically three corner stones, adequacy of food supply, access to food, and equity of food distribution. All these dimensions require special attention and enabling environment for ensuring household food security. The study presented strategic dimensions to reduce food insecurity. However, it did not use any empirical evidence to support the comments. Hussain and Akram (2008) examined the determinants of food security in Pakistan. The objective of the study was to evaluate the pillars of food security and provided the overview of Pakistan's economy. It showed that food insecurity in Pakistan is a result of failure policies. The study presented the policy recommendation for the government and for grower and emphasize that research is very important for the growth of any sector. The study concluded that modern ways of production and quality research is necessary to avoid food insecurity. Ahmad (2009) evaluated the wheat production and requirements of Pakistan. The objective of the study was to find out the factors that enhance per unit production. The study discussed the reasons behind low productivity which included increasing cost of agriculture inputs and shortage of irrigation water. The conclusion showed that financial support to small farmers, availability of fertilizers, certified seed, attention towards post-harvest losses and measures to curb wheat smuggling are the major factors to enhance productivity, moreover kalabagh dam is the need of the hour. Bogale and Shimelis (2009) examined the extent and determinants of food security and poverty in rural Ethiopia. A two-stage random sampling procedure was used to select 115 rural households in rural areas of Dire Dawa. A survey questionnaire was designed and tested to collect the primary data. The questionnaire tried to encompass information on demographic characteristics, crop and livestock production, farming systems and productive resources, land use, access to services, as well as coping strategies employed by the households during time of food shortage. The study employed the logit model, the dependent variable in the case of food insecurity, was a binary variable which took a value one if a household was found to be food insecure, zero otherwise. The study concluded that cultivated land size, credit received, use of irrigation, livestock holding in tropical livestock unit, age of the household head, household income have negative influence on food insecurity.

3. Data and Methodology

This study is based at evaluating the food security situation of Pakistan. For this purpose three pillars of food security have been analyzed. Availability of food has been measured by using total food production. Access to food has been measured by using per capita income and adult literacy rate. Similarly food absorption has been measured by using infant mortality rate and female literacy rate. Per capita food availability has been taken as a proxy for food security so it is used as endogenous variables and model has been developed accordingly and has been estimated.

3.1 Model Specification

The basic equation to be estimated is

$$PCFA = f(\text{PROD}, \text{PCI}, \text{ADL}, \text{IMR}, \text{FLR})$$

Where

PCFA: Per capita food availability is taken as a proxy for food security.

PROD: Total food production is the sum of agricultural based food and animal based food on yearly bases. Agriculture based food include, food Crops i.e. (Wheat, Rice, Jowar, Maize, Bajara and Barley), Pulses i.e. (Gram, Mong, Masoor, Mash, Matter, other Kharif and Other Rabi Pulses) Oil Seeds i.e. (R&M Seeds, Sesamum, Groundnut, Soybean, Sunflower, Safflower, Cotton Seeds) and animal based food include milk, meat, egg and fish.

PCI: Per capita income on yearly basis is taken as an indicator to measure food access.

ADL: Adult literacy rate on yearly bases. The variable plays an important role in economic access to food. As increased education will result in increasing the productivity, skill and income of an individual so it will ultimately increase the access to food. Education enhances technical capability so, an educated person can think effectively about hygienic conditions and nutrition level of household members.

IMR: Infant mortality rate is the number of infant dying before reaching one year of age, per thousand live births in a given year.

FLR: Female literacy rate on yearly bases. The expected sign for this variable is positive i.e. increase in female literacy rate will result in increasing the access toward quality food. The knowledge of women will result in the improvement of household food absorption.

3.2 Other Potential Explanatory Variables

The other variables affecting the indicator of food availability may be population and imports of the food items. For food accessibility may be female attending school male attending school, ratio of marginal cultivators, employed labour force and length of roads, and for food absorption these may be immunization, safe drinking water, doctors and LHV's are the other potential Explanatory variables which may be included in the study.

3.3 Data Source

In this study the time series data of Pakistan for the period 1973-2008 has been analyzed. Secondary data of the agriculture sector of Pakistan is used to analyze the study. Secondary data for the purpose has been obtained from following sources:

- Economic Survey of Pakistan (various issues)
- Agriculture statistics of Pakistan (various issues)
- State Bank of Pakistan (Hand book of Pakistan economy)

3.4 Econometric methodology

To analyze the food security situation of Pakistan our model, for food security analysis is assumed to take the following representation.

$$PCFA_t = \alpha_0 + \alpha_1 TFP_t + \alpha_2 PCI_t + \alpha_3 ADL_t + \alpha_4 IMR_t + \alpha_5 FLR_t + \epsilon_t \dots (1)$$

Where

PCFA = Per capita food availability

TFP = Total food production

PCI = Per capita income

ADL = Adult literacy rate

IMR = Infant mortality rate

FLR = Female literacy rate

ϵ and t stands for the error term and time subscript, respectively.

First of all we will check the time series properties of the variables of the model, in the time series analysis it is essential to evaluate the stationarity of the data, whether the series is stationary or not. Non-stationary series usually provide spurious results⁶ and it must be detrended before any analysis is undertaken. Unit root test is used to examine the stationarity of the data. In this regard the (ADF) Augmented Dickey Fuller (1979)⁷ test and the (PP) Phillips Perron (1988)⁸, tests are used at 1%, 5% and 10% levels of significance.

3.4.1 Stationarity test

A stationary time series have the following three properties.

$$E(Y_t) = \mu \quad (2)$$

$$\text{Var}(Y_t) = E(Y_t - \mu)^2 = \sigma^2 \quad (3)$$

$$\gamma_k = E(Y_t - \mu)^2(Y_{t+k} - \mu) \quad (4)$$

Which states mean and variance of the series is independent of time and the covariance between the two time periods depends only on the lag between the two periods and not on the actual time period at which the covariance is calculated. In other words, stationary series exhibit mean reversion, shocks to a stationary series are temporary and overtime will dissipate. Non-stationary process does not possess a mean to which the series reverts, shocks have permanent effects and the variance is time dependent. The OLS estimations may lead to spurious and misleading results if unit root exist in a series. There are two most popular tests for checking the unit roots in a time series. (i) Augmented Dickey Fuller (ADF) test and (ii) Phillips Perron (PP) test.

3.4.1.1 Stationarity Test: The Unit Root (Augmented Dickey Fuller) Test

The ADF test is the modified version of the Dickey Fuller (DF) test, which was derived, by the Dickey and Fuller in (1979)⁹. The Dickey Fuller test for unit root may be conducted in the following two steps: First of all, runs OLS regression of following type:

$$\Delta Y_t = \delta Y_{t-1} + \epsilon_t \dots (5)$$

and save the t_δ ratio as mentioned in equation 5. Secondly, the existence of unit roots in the time series data Y_t according to the following hypothesis.

⁶ Damodar N. Gujrati

⁷ Dickey, D.A., and Fuller, W.A. (1979) "Distribution of the Estimators for Autoregressive Time-Series with a Unit Root" *Journal of the American Statistical Association*, 74: 427-431.

⁸ Phillips, P.C.B. and Perron, P. 1988. Testing for a unit root in time series regression. *Biomètrika* 75(2): 336-346.

⁹ Dickey, D.A., and Fuller, W.A. (1979) Distribution of the Estimators for Autoregressive Time-Series with a Unit Root, *Journal of the American Statistical Association* 74: 427-431.

$$H_0: \delta = 0, \text{ for non stationarity if } t_\delta > \tau \dots (6)$$

$$H_a: \delta < 0, \text{ for stationarity, if } t_\delta < \tau$$

Where τ is the critical value as given by Fuller (1976).

For a time series to be stationary the t_δ value must be much negative. Otherwise, the time series is non-stationary. Dickey and Fuller have tabulated τ critical values when regression equation contains constant also i.e. when equation (5) becomes:

$$\Delta Y_t = \alpha + \delta Y_{t-1} + \epsilon_t \dots (7)$$

Where α is the intercept, t is the Linear Time Trend and δ is the parameter to be tested. Further, when the regression equation contains a constant and linear trend, equation (5) is written as

$$\Delta Y_t = \alpha + \beta t + \delta Y_{t-1} + \epsilon_t \dots (8)$$

The null hypothesis of non stationary or the unit root is rejected if the observed t statistics is sufficiently negative as compared to the negative values of the Dickey Fuller (1979). While conducting the DF test it is explicitly assumed the error term in the DF regression models are uncorrelated. But there are some cases in reality where the error terms are correlated. Thus to account for the possible autocorrelation, Dickey and Fuller modified their earlier test by adding the lagged term of the dependent variables to the explanatory variables in the model. Thus the equations become:

$$\Delta Y_t = \delta Y_{t-1} + \sum_{j=2}^q \delta_j \Delta_{t-j+1} + \epsilon_t \dots (9)$$

$$\Delta Y_t = \alpha + \delta \sum_{j=2}^q Y_{t-1} + \delta_j \Delta_{t-j+1} + \epsilon_t \dots (10)$$

$$\Delta Y_t = \alpha + \beta t + \delta Y_{t-1} + \sum_{j=2}^q \delta_j \Delta_{t-j+1} + \epsilon_t \dots (11)$$

Since, Dickey Fuller test as given by equations 5, 7 and 8 has been augmented with the lagged difference term to produce equations 9, 10 and 11, the usual D.F. test applied to the later equations (9, 10 and 11) took the name Augmented Dickey Fuller test. In fact, the critical values for DF, τ statistics still holds for the ADF test and the testing of hypothesis is still that as given in equation 6. In equations 9, 10, 11 the number of additional lagged differenced terms will depend on the minimum value of AIC and SIC (Akaike, 1973 and Schwartz, (1989)¹⁰.

3.4.1.2 Stationarity Test: Phillips Perron (PP) Test

The problem of Autocorrelation with the DF test was overcome with the addition of lagged term of the dependent variables in the model by the ADF test. To account for the same problem, the Phillips and Perron used the non parametric statistical test without adding the lagged of the dependent variables in the model. The following equations are to be estimated in the Phillip Perron (PP) test.

$$X_t = a_0 + a_1 X_{t-1} + \mu_t \tag{12}$$

¹⁰ Pandey and Kumar (2006) "Export and Economic Growth in India: Causal Interpretation". MPRA Paper No. 14670.

$$X_t = a_0 + a_1 X_{t-1} + a_2 (t - T/2) + \mu_t \quad (13)$$

The Asymptotic Distribution of the Phillip Perron (PP) test is the same as the Augmented Dickey Fuller (ADF) test, therefore the same critical value, as that of the ADF, can be applied to the Phillip Perron (PP) test.

3.4.1.3 Stationarity Test: Graphical Approach

In graphical approach to check the stationarity, the time plot of a time series is examined. If the graph has an upward or downward trend, the series suggest that the mean and variance of the series are changing overtime, which are the indications of non stationary series. The non stationary series may be made stationary by taking first or the second difference. If the series becomes stationary at the first difference, it is called integrated of order 1 or I (1) and this also implies that the series contains one unit root. Similarly, if the series becomes stationary at the second difference that it is integrated of order 2 or I (2) and have two unit roots. Most of the economic time series becomes stationary at first difference. If a time series is already stationary, then there is no unit root in the series. There are different methods to test the data if it is in the form of Time series, such as co-integration, Error Correction Model (ECM) and Vector Auto regression (VAR). But ARDL has some advantages, which are as follows.

3.4.2 Auto Regressive Distributive Lagged Model (ARDL)

The ARDL approach has certain econometric advantages in comparison to other single co-integration procedures (Engle and Granger, 1987; Johansen, 1988; Johansen and Juselius, 1990)^{11(a, b, c)}. Firstly, endogenous problems and inability to test hypotheses on the estimated coefficients in the long run associated with the Engle-Granger (1987) method are avoided. Secondly, the long and short-run parameters of the model in question are estimated simultaneously. Thirdly, the econometric methodology is relieved of the burden of establishing the order of integration amongst the variables and of pre-testing for unit roots. An ARDL model is a General Dynamic Specification, which uses the lags of the dependent variable and the lagged and simultaneous values of the independent variables, through which the short-run effects can be directly estimated, and the long-run equilibrium relationship can be indirectly estimated. The ARDL regression yields a test statistic, which can be compared to two asymptotic critical values (upper and lower critical values). If the test statistic is above an upper critical value, the null hypothesis of no long-run relationship can be rejected irrespective of the orders of integration for the time series. Similarly, if the test statistic is below the lower critical value, the null hypothesis of no long-run relationship is accepted. If the test statistics lie between the upper and lower values, the result is indecisive. The ARDL approach involves two steps for estimating the long-run relationship. The first step is to examine the existence of a long-run relationship among all variables in the equation under examination. If the co integration is confirmed; in the second stage the long-run coefficients and the short-run coefficients are estimated. The ARDL model selected by SBC performs better alternatives than AIC, because SBC is

^{11(a)} Engle, R.F. and C.W.J. Granger. (1987) "Cointegration and error correction: representation, estimation, and testing" *Econometrica*, 55, 251-276.

^(b) Johansen, S. (1988) "Statistical Analysis of Cointegration Vectors" *Journal of Economic Dynamics and Control* 12:231-254.

^(c) Johansen, S., and Juselius, K. (1990) "Maximum Likelihood Estimation and Inference on Cointegration with Applications to Money Demand" *Oxford Bulletin of Economics and Statistics* 52:169-210.

a consistent model selection criterion, but AIC is not (Pesaran and Shin 1999). Also, according to the Monte Carlo evidence presented by Panopoulou and Pittis (2004), the standard information criteria like SBC and AIC select the correct lag order reliably in the ARDL model.

3.4.3 Bounds Testing Procedure

ARDL bound test can estimate the long run and short run relationships in estimated model simultaneously. It also can distinguish dependent and explanatory variables, and allow to test for the existence of relationship between variables in level irrespective of whether the underlying regressors are purely I(0), I(1) or mutually cointegrated. The ARDL bound test is based on the F or Wald-statistic, which has a non-standard distribution. To implement the bounds test procedure, Equation (1) is modelled as a conditional ARDL- error correction model:

$$\begin{aligned}
 PCFA = & \beta_0 + \sum_{j=1}^n \alpha_j PCFA_{t-j} + \sum_{j=1}^n \beta_j TFP_{t-j} + \sum_{j=1}^n \delta_j PCI_{t-j} + \sum_{j=1}^n \mu_j ADL_{t-j} + \sum_{j=1}^n \phi_j IMR_{t-j} \\
 & + \sum_{j=1}^n \varphi_j FLR_{t-j} + \eta_1 PCFA_{t-1} + \eta_2 PROD_{t-1} + \eta_3 PCI_{t-1} + \eta_4 ADL_{t-1} + \eta_5 IMR_{t-1} + \eta_6 FLR_{t-1} + \mu_t
 \end{aligned}
 \tag{14}$$

Where β_0 is a drift component and μ_t are white noise error. The first step in the ARDL approach is to estimate Equation (2) using ordinary least square (OLS). The second step is to find out the presence of cointegration by restricting all estimated coefficients of lagged level variables equal to zero. So, the null hypothesis of no cointegration is

$$\begin{aligned}
 H_0 : \eta_1 = \eta_2 = \eta_3 = \eta_4 = \eta_5 = 0 & \text{ is tested against the alternative} \\
 H_0 : \eta_1 \neq 0, \eta_2 \neq 0, \eta_3 \neq 0, \eta_4 \neq 0, \eta_5 \neq 0
 \end{aligned}$$

by the mean of a F-test with an asymptotic non-standard distribution.

Two critical values are given by Pesaran *et al.*¹² (2001) for the cointegration test. The lower critical bound assumes all the variables are I(0), means that there is no cointegration among the variables, while the upper bound assumes that all the variables are I(1). There is cointegration among the variables. These can be denoted as $H_0 : \eta_1 = \eta_2 = \eta_3 = \eta_4 = \eta_5 = 0$ (there is no cointegration among the variables), against $H_0 : \eta_1 \neq 0, \eta_2 \neq 0, \eta_3 \neq 0, \eta_4 \neq 0, \eta_5 \neq 0$, (there is cointegration among the variables). If the F-computed is above the upper critical value, the null hypothesis of no long-run relationship can be rejected irrespective of the orders of integration for the time series therefore exist a cointegration among the variables. However, if the F-statistics is less than the lower critical value, then the null hypothesis of no long-run relationship cannot be rejected. Therefore, there is no cointegration among the variables. If the F-statistics lies between the lower and upper bound, then the results are inconclusive.

4. Empirical Results and Analysis

This section contains the findings of the study, its analysis, results, tables of results and discussion.

4.1 Unit Roots Tests

Before we proceed with the ARDL Bounds Test, we will test the stationary status of all variables to determine their order of integration. This is to ensure that the variables are not

¹² Pesaran, M.H., Shin, Y., Smith, R., (2001). "Bounds testing approaches to the analysis of level relationships" *Journal of Applied Econometrics* 16, 289–326.

I (2) stationary so as to avoid spurious results. The presence of I(2) statistics provided by Pesaran, M.H., Y. Shin and R.J. Smith (2001) are not valid because the bounds test is based on the assumption that the variables are I(0) or I(1). Therefore, the implementation of unit root tests in the ARDL procedure might still be necessary in order to ensure that none of the variables is integrated of order 2 or beyond.

4.1.1 Augmented Dickey Fuller (ADF) Test Statistics

To investigate the property of stationarity of the time series data, the results of the Augmented Dickey Fuller (ADF) test are presented in the Table 4.1. As shown in the table all tests do not reject the null hypothesis in the level form except PCFA which is stationary at level form. However, all tests reject the null hypothesis of non-stationary when variables are used in the first difference. This implies that series of variables PCFA, TFP, ADL, PCI, IMR, FLR are integrated at level, or I (1) process.

Table 4.1
Unit Root Test Results
Augmented Dickey- Fuller Test Statistics

Model Specification with Constant					
A: Level					
Variables	T- Statistics	1%	5%	10%	P values
PCFA	-0.697	-3.616	-2.941	-2.609	0.84
TFP	1.542	-3.616	-2.941	-2.609	0.99
ADL	2.270	-3.616	-2.941	-2.609	0.99
PCI	0.396	-3.616	-2.941	-2.609	0.89
IMR	-1.004	-3.621	-2.943	-2.610	0.74
FLR	2.107	-3.616	-2.941	-2.609	0.99
Model Specification with Constant and Linear Trend					
PCFA	-3.902	-4.219	-3.533	-3.198	0.02
TFP	-2.409	-4.219	-3.533	-3.198	0.37
ADL	-1.490	-4.219	-3.533	-3.198	0.82
PCI	-1.764	-4.219	-3.533	-3.198	0.70
IMR	-0.791	-4.237	-3.537	-3.200	0.92
FLR	-1.700	-4.219	-3.533	-3.198	0.68
B: First Differences					
Model Specification with Constant					
PCFA	-5.692	-3.627	-2.946	-2.612	0
TFP	-5.387	-3.627	-2.946	-2.612	0
ADL	-5.308	-3.627	-2.946	-2.612	0
PCI	-4.483	-3.627	-2.946	-2.612	0
IMR	-4.475	-3.627	-2.946	-2.612	0
FLR	-5.524	-3.627	-2.946	-2.612	0
Model Specification with Constant and Linear Trend					
PCFA	-5.668	-4.235	-3.540	-3.202	0
TFP	-5.830	-4.235	-3.540	-3.202	0
ADL	-6.219	-4.235	-3.540	-3.202	0
PCI	-4.490	-4.235	-3.540	-3.202	0
IMR	-4.492	-4.235	-3.540	-3.202	0
FLR	-6.500	-4.235	-3.540	-3.202	0

Note: The null hypothesis is that series is non- stationary or contains a unit root. The rejection of null hypothesis is based on the Mac Kinnon Critical values

4.2 Test for Cointegration Relationship

The Bound test for cointegration involves the comparison of the F-Statistics against the critical values. The lower critical bound assumes all the variables are I(0), means that there is no cointegration among the variables, while the upper bound assumes that all the variables are I(1). There is cointegration among the variables. Each variable in our model

is taken as a dependent variable in the calculation of F-Statistics. The calculated F-Statistics are given in Table 4.2.

Table: 4.2 ARDL Bounds Co integration for Equation (1,1,0,0,1,0):

F – Statistics	90% critical value bounds		95% critical value bounds	
	Lower Bound I(0)	Upper Bound I(1)	Lower Bound I(0)	Upper Bound I(1)
F(PCFA TFP,ADL, PCI, IMR, FLR) = 5.008	2.508	3.700	2.980	4.399
F(TFP PCFA,ADL,PCI, IMR, FLR) = 3.770				
F(ADL PCFA,TFP,PCI,IMR,FLR) = 4.076				
F(PCI PCFA,TFP,ADL,IMR,FLR) = 40.50				
F(IMR PCFA,TFP,ADL, PCI,FLR) = 0.638				
F(FLR PCFA,TFP,ADL,IMR, PCI) =2.186				

Table 4.2 reports the results of the calculated F-statistics when each variable is considered as a dependent variable (normalized) in the ARDL-OLS regressions. When Per capita food availability is the dependent variable, the calculated F-Statistic $F(PCFA|TFP,ADL, PCI, IMR, FLR) = 5.008$ is higher than the Upper Bound critical value 4.399 at the 5% level, and higher than 3.700 at 10% level. Thus, from table it is observed that the null hypotheses of no co integration are rejected, implying long-run co integration relationships amongst the variables when the regressions are normalized on per capita income, total food production, adult literacy rate and per capita income. When the rest of the variables in the model such as female literacy rate and infant mortality rate are observed, these are lower than the lower bounds at 10 percent level of significance. However, we will use per capita food availability as the dependent variable. Once we established that a long-run co integration relationship existed, ARDL equation will be estimated using the following ARDL (1, 1, 0, 0, 1, 0) specification.

4.3 Estimated Long Run Coefficient using ARDL Approach

The results obtained by normalizing on per capita food availability, in the long run are reported in Table 4.3. The estimated coefficients of the long-run relationship show that only female literacy rate has insignificant impact on per capita food availability, keeping other variables constant. All other variables total food production, adult literacy rate, per capita income and infant mortality rate has significant impact on per capita food availability.

**Table 4.3 Estimated Long Run Coefficients using the ARDL Approach
ARDL (1,1,0,0,1,0) selected based on Schwarz Bayesian Criterion:**

Regressors	Coefficient	S.E	T-Ratios	Probability
TFP	0.006	0.001	5.69	0.000**
ADL	-17.98	9.12	-1.97	0.06*

PCI	-0.002	0.001	-2.12	0.04*
IMR	-1.513	0.644	-2.35	0.02*
FLR	10.69	9.707	1.10	0.28
INPT	823.73	91.42	9.01	0.000**

Diagnostic Tests	
Serial Correlation (χ^2)	= 1.8078[.179]
Functional Form (χ^2)	= 13.1442[.000]
Normality (χ^2)	= .10191[.950]
Heteroscedasticity (χ^2)	= 6.9508[.008]

* indicates that variable is significant at 10% level of significance

** indicates that variable is significant at 1% level of significance

4.4 ECM Representation for selected ARDL model

The error correction coefficient indicates how quickly or slowly variables return to equilibrium and it should have a negative sign with high significance. The error correction term, *ecm*-1, shows the speed of modification required to re-establish equilibrium in the short-run model. Short run coefficient estimates based on the ECM version of ARDL model are given in table 4.4. The results show that error correction term is negative and significant. The results of the Short-Run dynamic coefficients associated with the Long-Run relationships obtained from the ECM equation are given in Table. The signs of the short-run dynamic impacts are maintained to the long-run. Adult literacy rate, female literacy rate and infant mortality rate has insignificant impact on per capita food availability in the short run. Per capita income has significant but inverse impact on per capita food availability which shows the application of Engle curve, all increase in income concentrate in few hands, and spent by them on the purchase of luxurious items.

Table 4.4: Error Correction Representation for the Selected ARDL Model
ARDL (1,1,0,0,1,0) selected based on Schwarz Bayesian Criterion

Regressor	Coefficient	S.E	T-Ratios	Probability
dTFP	0.008	0.005	17.12	0.000
dADL	-6.09	3.67	-1.66	0.107
dPCI	-0.009	0.004	-2.25	0.031
dIMR	0.555	0.353	1.57	0.126
dFLR	3.61	3.48	1.04	0.306
Ecm(-1)	-0.34	0.080	-4.22	0.000

$$\begin{aligned}
 \text{ecm} = & \text{PCFA} - .0057033 * \text{TFP} + 17.9847 * \text{ADL} + \\
 & .0027250 * \text{PCI} \\
 & + 1.5139 * \text{IMR} - 10.6897 * \text{FLR} - 823.7306 * \text{INPT}
 \end{aligned}$$

4.5 CUSUM and CUSUMSQ

To find out the stability of the Long Run and Short Run relationship among the variables for the entire period of study we have to test the parameter stability. Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests proposed by Brown et al., (1975) confirm stability in the model. The Instability might be occurred due to Structural Breaks in the economy during the entire period of study. The null hypothesis is rejected if either of the parallel lines is crossed by the plots of both tests. The null hypothesis, meaning all coefficients are stable, cannot be rejected when the plots of CUSUM and CUSUMSQ tests do not cross the critical values line of 5 percent level of significance. This phenomenon indicates the structural instability over the period of study.

Figure: 4.1

Plot of Cumulative Sum of Squares of Recursive Residuals

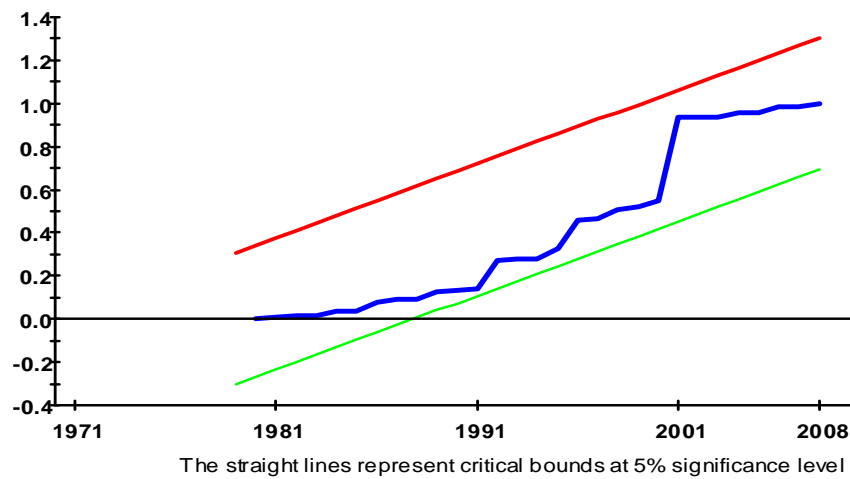
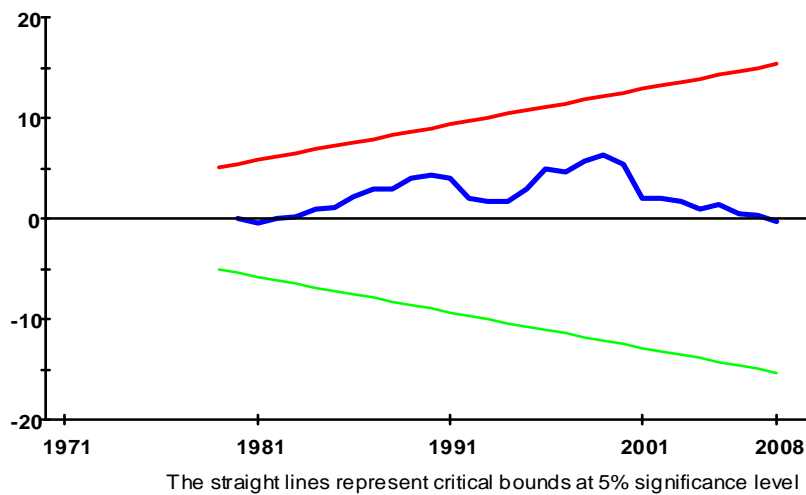


Figure: 4.2

Plot of Cumulative Sum of Recursive Residuals



The trends do not cross the parallel lines of the plotted area; hence there is stability among parameters over the period of the study.

5. Conclusion and Recommendations

5.1 Conclusion

From the past three decades, food security emerged as a concept when it was observed that world food production is enough to meet the dietary needs of the growing population, however there presents millions of people around the world suffering from hunger and malnutrition. Therefore, knowledge about food security issue is important for making a decision that which food security policy is adopt to affect the hungry and malnourished people. The goal of this study is to establish the relationship between food security and its component by using annual data covering the period 1971 to 2008. We find long-run relationship in the case of Pakistan. This study has employed the Augmented Dickey

Fuller unit root test, Bounds Testing approach to co integration and error correction model to examine the long run and short run relationship between per capita food availability, total food production, adult literacy rate, infant mortality rate and female literacy rate. The long run Equilibrium show that the female literacy rate has insignificant relationship with per capita food availability, total food production has positive sign but do not have a significant impact on per capita food availability.

The results also indicate that per capita food availability, total food production, adult literacy rate, infant mortality rate and female literacy rate are important in explaining food security level in the long run in Pakistan. As infant mortality rate is taken as a proxy for health facility so the negative sign associated with it shows that reduce health facilities leads to increase the infant mortality rate hence shows proper food is not available to individual and it is not absorbed properly. Similarly the relation ship between per capita food availability and per capita income indicates that as income of the people increases, it mostly converges into the hands of rich people who spend such increase in income on luxurious, imported items hence result in the reduction in per capita food availability to the overall population. In urban areas 2 percent of the total urban households and in rural areas 3 percent of the rural households have been considered as real poor. So the marginal propensity to consume for food is negative or zero for such poor¹³. Adult Literacy rate is taken as a proxy for economic access to food. As greater spending in urban areas on education is considered as urban bias against agriculture, which affect productivity and the quality of life. Hence members of richer households who have better access to educational opportunities are the real beneficiaries in terms of higher income and better access to food. As FSA (2003) reveals that 43 percent of our rural population has low literacy rate and it is the possible factor responsible for limited access to opportunities and to food. Female literacy is an important variable with regards to food absorption as educated women knows the nutritious effect of quality food, so they will be helpful in providing the nation healthy and capable work force which result in increasing the per capita food availability. Moreover, the knowledge associated with education can substantially improve nutritional education and hence improve household food security¹⁴. Although there has been improvement in some indicators of food security but still when compared with regional and some of the developed countries Pakistan's performance remained quite dismal. It is an issue of grave concern. The failure of the country to produce enough food and low per capita food availability is quite pathetic.

5.2 Recommendations

The food security situation of Pakistan should be given serious attention. Special enquiry may be conducted to identify the reasons of failure of National food programs in controlling food insecurity. To stay away from food crises there should be some short-term and long-term planning, customized policies and massive investment needed. Some important recommendations that need to be addressed are as follows:

- To maintain total food production, adequate irrigation water supply occupies the pivotal role in enhancing agriculture production. So there is a need to construct big

¹³ Mehmood *et al.*,(1991): "Food poverty and its causes in Pakistan". *The Pakistan development review*.pp. 821-834

¹⁴ Sheikh(2007): "Determinants of household food security and consumption pattern in rural Sindh:Non-separable agricultural household model", *IUB Journal of social sciences and humanities*, 5(2): 18-38

dams. This issue must not be taken as political rather treated on humanitarian bases.

- To maintain production level within a country the foremost step is to stop smuggling of wheat grain and flour to other countries. According to Siddiqui (2008) 1800 mmt of wheat flour is smuggled to Afghanistan every month through tribal areas. It is necessary to stop such practices.
- Female education is necessary to manage nutrition and disease and can contribute significantly to better food absorption and ultimately food security. So there is a need to focus on the female education. A well educated female community plays its role in the children nutrition and health in the society.
- Post production losses must be reduced by creating awareness among the farmers to develop sound grain storage management. For this purpose farm granary, water proof containers, observing storage hygiene, controlling insect infestation may be of great help.
- Agricultural sector must be equipped with the modern technologies so that it must be able to provide food to massive population. Government must develop new research centers to increase the productivity. High growth in the agri production in relation to the population saves them from food shortage.
- Government must also focus on making national food policy which covers all the aspects of food security in the country. It must also establish a food commission which reviews and implements the decisions which directly and indirectly affect the food security.
- The government takes steps to ensure that there must be a balance between the production of cereal and other crops such as wheat, sugar, edible oil and vegetables. Excess and deficiency in any one of these crops production cause food insecurity in the country. For this purpose the farmers are educated and convinced by giving them different incentives. This will help a lot to reduce the import of short food items and will save the country from food insecurity.
- Developed infrastructure is needed to achieve food security. In this regard logistic support is much important. Like NLC government must establish a body which provides air and water logistic support. Most of the areas in the country are located at mountains and roads are not operational approximately whole year due to unfavorable weather conditions. So, by the help of air support these areas can be focused.
- The population explosion should be controlled and the effectiveness of National program for family planning should be properly monitored so that the balance must be maintained between food production and food use.
- Last but not the least, a provincial food security monitoring and evaluation authority may be established in each province to oversee the proper and effective implementation of food programmes. So that agriculture sector is geared up to provide adequate food supply to all and sundry.

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Smoking Behavior of Students in Exams: A Comparison of Cypriots and Foreigners

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Abstract

This study has been conducted to compare smoking behaviors during exams of Cypriot and foreigner students and to find out what factors influence their behaviors. For this purpose questionnaires have got filled by 200 Cypriot students and 200 foreigner students. Three Regressions has been applied to the data in order to analyze the combined trend, trend of Cypriot students and trend for Foreigner students. Results found that tendency to smoke increases in Cypriot students during the exams as no significant relationship has been obtained between the variables. Sufficient evidence has been fund to conclude that Foreigner students do have a tendency to smoke more during exams. However significant relationship has only been found between cigarette consumption during exams and daily cigarette consumption. Thus it is concluded that the students, who are regular smokers otherwise, have more tendency to smoke during exams as they are already use to it.

Key Words: Smoking Behaviors, Cypriot students, Foreigner Students.

1. Introduction

It is estimated that smoking rate is 19 %; the situation is particularly alarming in adolescents. Data analysis prevailed that, globally, approximately 48% of men and 10% of women smoke. If current trends continue, it is estimated that 20% of women worldwide will smoke by 2025 (American Lung Association, 2010).

Several studies defined different factors which affected the smoking behavior: genetic predisposition, demographic and psychosocial factors, tobacco policy, accessibility of cigarettes, society values regarding tobacco smoking, role models, and academic performance (Saatci, 2004). Appeal of cigarette advertising has also been considered as one of the reasons adolescents start smoking as they are more attracted towards the ads designed particularly for youth (Arnett, 2001). Cigarette advertisements published in magazines contain youthful themes in them which in turn raise the adolescents to smoke (Pollay, 1993).

Hunt et'al (2009) conducted a study to find out the association between seeing smoking in films and tobacco use in young adults in the west of Scotland. Cross-sectional analyses by using multivariable logistic regression found no association between film smoking exposure and smoking behaviour for any covariate-defined subgroup of age 19. However this association was found in USA adults.

Smoking has widely been considered as the eliminator of stress. There is a huge tendency of increases in smoking precipitated by stressful events. Face-to-face semi structured interviews with college freshmen at a large mid western university in the US with male and female low-level smokers and smokers by Nichter et'al (2007) reveals that smoking served multiple functions during times of stress for college students e.g during exams as a social interaction, as idiom of distress etc.

West and Lennox (1992) tested eighty-two college students to find out the motives responsible for increase in cigarette smoking prior to examinations. Their results indicated

that students are more intended to smoking during the revision phase prior to exam. The reason may be that anxiety level increases prior to exams however this increase can not be associated to sedative smoking motives.

Tobacco smoking is an important public health problem in Cyprus. In Cyprus limited data exist regarding smoking among youth. A survey conducted by the Ministry of Health in 1997 revealed that 6.5% of all youth 15–19 years old were daily smokers whereas a study in 2003 showed that this number was 14.7% (22.6% for boys and 5.7% for girls). The European School Survey Project on Alcohol and Other Drugs (ESPAD) reported that 22% (30% for boys and 14% for girls) of 15–16 year-old students surveyed in Cyprus in 2003 had smoked at least once in the past 30 days (Kolokotroni et al, 2008).

Smoking among students is very common in Cypriot universities. This study was conducted to make a comparison of smoking behaviors in exams between Cypriot and foreigner students. Aim of the study was to check how much stress level and homesickness urge students to smoke more. A comprehensive and detailed study of the topic revealed that there are many factors that influence the cigarette consumption among students.

In order to make a comparison of smoking behaviors in exams between Cypriot and Foreigner students following hypothesis has been tested:

H₁: Tendency to smoke increases among Cypriot students during exams

H₂: Tendency to smoke increases among Foreigner students during exams

2. Methodology

Data has been gathered by using questionnaire comprised of the questions relating to cigarette consumption behaviour during exams and in periods other then exams. Certain variables have been identified which are supposed to effect the cigarette consumption pattern of students.

Our Sample consists of randomly selected 200 Cypriot students and 200 Foreigner students. After eliminating incomplete and unanswered questionnaires we ended up with 368 questionnaires to find out whether Cypriot students consume more cigarettes during exam or foreigner students.

3. Variables

Selected variables have been divided into dependent and independent variables as follows:

3.1 Dependent Variable

Daily Cigarette Consumption in Exam: as we have established, daily consumption of cigarettes in exam depends on various factors. Some of them are selected for the purpose of this study as discussed below.

3.2 Independent Variable

Daily Cigarette Consumption: daily cigarette consumption is a habitual phenomenon and so it has been taken as independent variable.

Income Level: Only a person with sufficient income level would be able to consume cigarettes frequently whether in exams or without exams.

Stress Level: It has been proved as a psychological phenomenon that people in stress tend to consume more cigarettes as compared to those who do not take much tension.

4. Model

The job of developing a mathematical equation can be a complex job because need to have some idea about the relationship between each of the independent variables and the

dependent variable (Keller, 2008).As our hypothesis refer to two dimensions of testing the cigarette consumption in exams i-e for Cypriot students and for foreigner students, simple regression model has also been applied in three ways i-e for Cypriot students, for foreigner students and on combined data. The model applied is as follows:

$$DCE = \beta_0 + \beta_1 DC + \beta_2 I + \beta_3 SL + \epsilon$$

Where:

DCE = Daily Cigarette Consumption in Exams

DC = Daily consumption of cigarette

I = Income Level

SL = Stress Level

β = Coefficients of variables

ϵ = Error Term

5. Empirical Analysis

As data has been gathered and Regression has been applied to Cypriots as well as foreigner students, results are also discussed separately for both types of respondents. However, combined trend has also been analyzed.

6. Combined Results

Regression results and descriptive statistics for combined data have been presented in two panels of Table 1 below.

Table 1-A: Descriptive Statistics for Combined Trend

	Mean	Std. dev
DCE	2.9799	0.8817
DC	2.5879	1.6084
I	2.7789	0.9489
SL	0.6935	0.4622

Descriptive statistics in Table 1, Panel A shows that mean value for daily cigarette consumption (DC) is highest among independent variable and that of stress level (SL) is lowest. Similarly standard deviation of DC is highest where as for SL it is lowest. This implies that SL is the strongest variable which affects our dependent variable i-e DCE and DC is the weakest one.

Table 1-B: Regression results for combined trend

	B	t- value
Intercept	2.6113	11.1395**
DC	0.0091	0.2351
I	0.0647	0.9732
SL	0.2382	2.7477*
R²	0.0227	
F- value	1.5128	
Observations	368	

Notes:

β shows the coefficients for each variable.

* Significant at 95% level of confidence.

** Significant at 99% level of confidence.

Table 1 for combined results shows that cigarette consumption in exams is positively related to daily cigarette consumption other than exams, income level and stress level. However there appears positively significant value for stress level only ($\beta = 0.2382$, t -value = 2.7477). Rest of all coefficients is positive but statistically insignificant.

7. Coefficient of Determination

R^2 is as low as 2% in this case. This statistic tells us that only 2% of the variation in cigarette consumption in exams is explained by the variations in the independent variables used in the model. This might be due to insufficient data or too few variables to describe this phenomenon. In actual there are many factors that influence the cigarette consumption in exams and even in normal days as suggested in (Saatci, 2004) and secondly as number of observations were small, this also has a significant impact on the results.

This implies that in light of our results, as a general trend, stress level is the strongest variable that could effect the cigarette consumption in exams. Students in stress consume more cigarettes as compared to when they are relaxed and these are the same results as revealed by descriptive statistics.

8. Results for Cypriot Students

Descriptive statistics and regression results for Cypriots are presented as under in two panels of Table 2.

Table 2-A: descriptive statistics for Cypriots

	Mean	Std. dev
DCE	2.8889	0.9246
DC	2.4343	0.9493
I	2.7071	1.0327
SL	0.6061	0.4911

For Cypriots again lowest value of standard deviation occurs for Stress Level but still we can not draw any conclusion from here as almost all the means and standard deviations are closer to each other.

Table 2: Panel B: Regression Results for Cypriots

	B	t- value
Intercept	2.4267	6.7273**
DC	0.1075	1.0769
I	0.0302	0.3272
SL	0.1959	0.9971
R^2	0.0288	
F- value	0.9391	
Observations	190	

Notes:

β shows the coefficients for each variable.

** Significant at 99% level of confidence.

Regression results in Table 2, Panel B for Cypriots have shown that all the coefficients have positive values implying a positive relationship with cigarette consumption in exams. However no value is statistically significant except of intercept.

8.1 Coefficient of Determination

R^2 is again as low as 2%. Reason might be the same as mentioned above. Thus, as far as Cypriots are concerned, none of our selected variables significantly effect the cigarette consumption in exams which provides us the basis for rejecting our null hypothesis under study.

9. Results for Foreigner students

Descriptive statistics and regression results for foreigner students have been stated in two panels of Table 3 as under.

Table 3
Panel A: Descriptive Statistics for Foreigner students

	Mean	Std. dev
DCE	3.0909	0.8218
DC	2.7576	0.8463
I	2.5758	0.8932
SL	0.6566	0.4773

Descriptive statistics in Table 3, Panel A for foreigner students does not show any particular trend in results. Standard deviation for stress level (SL) is again minimum in this case just like above mentioned two cases. Thus we can say that there might exist some positive relation between stress level and cigarette consumption in exams.

Table 3
Panel B: Regression results for Foreigner students

	B	t- value
Intercept	2.0447	5.4487**
DC	0.3213	3.4082**
I	0.0399	0.4455
SL	0.0874	0.5197
R^2	0.1108	
F- value	3.9475*	
Observations	178	

Notes:

β shows the coefficients for each variable.

* Significant at 90% level of confidence.

** Significant at 99% level of confidence.

Regression results for foreigner students in Table 3, Panel B shows that daily cigarette consumption has positively significant value ($\beta = .3213$, $t\text{-value} = 3.4082$). This implies that in case of foreigners, daily consumption positively effects the cigarette consumption in exams. In this case, F- value is also significant at 90 % level of confidence showing over all authenticity of model applied.

9.1 Coefficient of Determination

R^2 is 11 % in case of foreigners which is an improvement over R^2 of previously mentioned two cases. This means that 11 % of the total variation in cigarette consumption in exams in case of foreigners is explained by our independent variables under study.

10. Conclusion

This study has been conducted to have a comparison of smoking behaviors in exams between Cypriot and foreigner students. For this purpose questionnaires have got filled by 200 Cypriot students and 200 foreigner students. By applying regression model to the data collected it has been found that there is significant evidence to reject our first hypothesis that is tendency to smoke increases in Cypriot students during the exams as no significant relationship has been obtained between the variables. Sufficient evidence has been found to conclude that foreigner students studying in Cyprus do have a tendency to smoke more during exams. However significant relationship has only been found between cigarette consumption during exams and daily cigarette consumption.

Thus it is concluded that the students, who are regular smokers otherwise, have more tendency to smoke during exams as they are already use to it. Psychological reason could be that foreigner students being apart from their homelands feel isolated and dull particularly when all rest of the students are busy in exams. In order to relieve this pressure of isolation they are intended to smoke more as indicated by Nichter et'al (2007). The combined results obtained for Cypriot and foreigner students studying in Cyprus indicate that stress level is positively and significantly related to cigarette consumption among the students during exams. These are the same results as indicated by West and Lennox (1992).

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Diffusion of Japanese Management Practices in the Developing Countries: A Case of Pakistan

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Abstract

This paper analyzes critically the characteristics and philosophy behind some of the Japanese Management Practices, which made Japan an industrial giant in the shorter possible time and examines the implications and complexities of introducing these practices as a success model for developing countries like Pakistan in general. In doing so, the experiences of other countries, which have practiced these techniques and findings of research studies conducted from time to time will be used for illustrative purposes. It is concluded that the whole set of techniques may be difficult to apply due to social and cultural differences but some sterling characteristics of the Japanese system have wide applicability. The best possible thing would be to adopt those components of Japanese system which could be compatible with the social, cultural, economic and political realities in developing countries.

Keywords: Management, Human Resource Management, Comparative Management, Japanese Management Practices, Developing Countries, Cultural Management.

1. Introduction

The competitive success of Japanese Companies particularly in the automobile, electronics and high-tech industries has introduced new concepts and new standards for quality and productivity, which challenge many assumptions established under western manufacturing practices. The emphasis is no longer on counting person days lost to industrial action, quelling conflict or negotiating collective contracts. The new focus is on putting the human resource to productive use, which implies that there is a need to relate management of human resources with the overall organizational performance. This represents a major shift in industrial organization i.e., from mass production to lean specialization. Womack, Jones and Roos (1990) rightly labeled this shift from 'Fordism' to 'Toyotism.' In other words, Japanese success has replaced the idea that modernization means westernization; the concept is now modernization means Japanization which implies according to Harriss (1995) a range of industrial practices associated with major Japanese Companies. Putti (1987) and Dedoussis (1995) write that credit seems to go to the Japanese for the concepts and techniques, which result in efficiency and effectiveness. In fact, these practices are used and to some extent developed by Japanese companies; that is why rightly dubbed as Japanese Management Practices (JMP).

The Japanese people through their management system have succeeded in rebuilding Japan from the rubble of World War II with few natural resources and imported technology to the world's second economic power (GDP \$5.11 trillion) after the United State (GDP 7.245 trillion) in but a little over twenty years. In the post-war period, according to Kenney and Florida (1995) Japan has demonstrated remarkable economic growth and has overtaken its competitors in most product areas notably high-tech manufacturing sector.

During the past four decades, Pakistan has been struggling to attain the status of a stable and prosperous nation. Pakistan is faced with economic problems of serious nature, which include increasing debt burden, balance of payment, budget deficit, unemployment, inflation etc. Khan (1999) pointed out that the complexity and dynamism of the global business environment poses constant challenge for Pakistani policy-makers and business managers. They need to think about new ideas and methods to gain a competitive edge in international as well as in the domestic market and to sustain growth. In search of ways of improving productivity and quality they have to move away from traditional management techniques. Both public and private sector in Pakistan need proper planning to come out of the present uncertainty. In this situation one can learn a lesson from Japan. Quraishi (1994) suggests that Japan's rise from the ashes of the Second World War was like the mythical phoenix, commanding respect in the community of nations is model to emulate. The primary concern of this paper is to analyze critically the principal characteristics and philosophy behind some of the JMP and examine their relevance as a success model in the context of a developing country like Pakistan in general. This paper will proceed in the following order. Commencing with this introduction, it reviews the literature on Japanese Management System (JMS). Section three explains the sources and data collection procedures and section five examines the implications and complexity of introducing these management practices in the case of Pakistan in general. In the final section, this debate will be concluded.

2. A Review of Literature on Japanese Management Practices

Japanese management according to Singh and Chander (1992) is being looked upon as an alternative for many managerial problems. Even the Western Countries like the U.S.A and U.K are adopting these principles. To understand and discuss its applicability, it is inevitable to examine critically as to what are the characteristics of some of JMP and what made Japan number one in the business world. There is a growing literature on JMP, which provided a base for discussion in this section. These practices referred by various researchers can be divided into three broad categories i.e., (i) employment practices; (ii) manufacturing practices; and, (iii) cultural practices and discussed as under:

2.1. Employment Practices

2.1.1. Life Time Employment (Shushin Koyo)

Lifetime employment (LTE) is perhaps the most widely publicized aspects of Japanese management. In most of the Japanese firms (core firms) there is a life long commitment according to Whittaker (1990) between the organization and the individual (core employees). Under this system the Japanese firms hire fresh graduates, train and keep them on the payroll until retirement at the age of fifty-five except few who are working as managing directors. The employee enters the organization after graduation for a probationary term. This trial period determines the employee aptitude, and attitude towards work, colleagues and organization. After successful completion of trial period the firm offers a life long employment contract to employees. There is no formal agreement rather there is a mutual understanding between employers and employees about each other expectations. That is why employment in Japan is viewed as induction of individual into firm social group / family.

The system of LTE provides job security, greater human interaction and growth of fast friendships, promotes corporate loyalty, trust, harmony, high level of motivation, group effectiveness and total commitment on the part of the employees. On the other hand, there are some obvious disadvantages of the system. Shah (1992) and Quraishi (1994) pointed out that practice of LTE in the time of depression might contribute to increase in fixed cost

and structural inflexibility but Chung and Margaret (1982) argued that encountered with economic difficulties, the company may take such steps as reducing salaries and bonuses proportionately for all employees (flexible wage system), reorganizing the permanent workers, reducing working hours and releasing temporary workers. The no lay-off policy greatly increases the loyalty and belongingness between the individual and the firm.

However, Maher (1985) and Dohse, Jurgens and Malsch (1985) stated that the main objective of LTE in Japan has not been humanitarian; rather it is to restrict labor mobility between firms. LTE represents the typical feudal tradition of loyalty to one feudal lord. Oliver and Wilkinson (1992) add that restrictions on the mobility of workforce represent a conscious managerial strategy designed to cope with an acute shortage of skilled labor following the Japanese decision to industrialize in 1887. Moreover, the LTE system is only applied to core staff which is according to Iwata (1982), Morris and Wilkinson (1995), Abdullah and Keenoy (1995), and Oliver and Wilkinson (1992) 30 to 35% of the labor force, operational only in core Japanese companies and women are virtually excluded from the system.

In fact, the system of LTE evolved in Japan when there was hardly any competition and majority of the employees worked for a lifetime with one master (feudal legacy). Nevertheless, Rahim (1992) stated that the Japanese system has started eroding and finding it difficult to sustain due to the ravaging competition which, requires the companies to employ the best professional manpower instead of recruiting fresh graduates. Consequently, some of the traits of 'merit based' American and British systems are being adopted by the Japanese.

2.1.2. Dual Structure (Core and Periphery Employees)

An organizational structure made up of core and periphery workers is common among the Japanese companies. Core employees are permanent and enjoy the status of LTE, while the peripheries are the temporary employees. Iwata (1982) argued that companies have no choice but to accept the existence of the periphery work force if they want job security and LTE for the core members of their organizations. Oliver and Wilkinson (1992) observe that there are substantial differences in the benefits enjoyed by those on the periphery and those enjoyed by the core workers. The periphery workers such as seasonal, part time, temporary workers, refer to as an industrial reserve army of Japan, obliged to work under less than satisfactory conditions and are laid off when business becomes dull. The second element of the dual economy involves the use of core and periphery companies. Core industry requires massive capital costs, has intense competition, dominated by male workers and producing higher value added products such as automobile, steel, textile etc. On the other hand, periphery companies are working under labor intensive technology, dominated by female, low wage, poor working conditions and involve in low value added activities such as electronic industry in Japan. LTE is less likely to exist in these periphery companies. The third element of the dual economy is the core country verses periphery countries and they attach all the aforementioned characteristics of core and periphery with Japan as core country and rest of the world as periphery countries.

2.1.3. Seniority Based Pay and Promotion (Nenko)

Seniority based system of pay and promotion go hand in hand with LTE. In Japan all are treated equally at the time of employment and they climb the ladder of seniority in a group. In their late forties, however, they begin to diverge. Some are promoted to top management posts while others can expect to rise to no more than section chief. Their wages and promotion are determined on the basis of their length of service i.e., age and not by performance i.e., job grades (Takeuchi, 1985; Oliver and Wilkinson, 1992). However, the candidates for top posts are chosen through competition. Although

inefficiency does not constitute a serious charge, but the person concerned may be transferred to a less responsible position.

Almost all promotions to management position are taken from within the organization and are very slow because of LTE. Individual being promoted gradually under the rotation system may become the chairman of the union of employees and return to regular work when his term as a union leader expires. It can be concluded that the seniority system provides the advantages of encouraging skill development, diminishing internal competition and reducing the labor turn over. But at the same time it discourages the drive for performance, innovation and initiative. Endo (1996) has a critical view about seniority system. According to him, personal assessment (Satei system) made by immediate supervisor plays an important role for determining promotion and amount of monthly pay of Japanese workers. So both promotion and amount of salary are the prerogative of management in practice. Gakken (1985) observe that most of the Japanese corporations retain a Nenko system but with recent changes, such as (i) increase in cost of labor; (ii) slow economic growth; (iii) ageing population; and, (iv) shortage of higher level openings, which ultimately eroded employees expectations and loyalty, most companies considered its elimination or, at least dilution in favor of performance related pay. Today, individual competition between employees for higher pay and promotion is reported to be high (Pucik, 1984). The entire system of Nenko is definitely under fire and Japanese employees today face a difficult and uncertain future.

2.1.4. Low Turn Over Rate (T.O)

Turnover is low in Japan; both management and employees stay with one company for their corporate career (Kenney and Florida, 1995). LTE, Nenko and family concept of the company are the mechanisms to restrict or, minimize employees' mobility. There are other reasons too, such as (i) it is difficult for workers to find better opportunities elsewhere; (ii) employees have only received company specific training which is useless outside that particular company; and, (iii) since promotion and wages are based on seniority, in case of turnover employees seniority could be broken. In other words, restrictions on employees' mobility may be a conscious managerial strategy designed to cope with shortage of trained labor.

2.1.5. Enterprise Union

Unions are internalized and treated as part of the organization in most of the Japanese public and private enterprises employing more than 500 workers and those employing less than 100 workers are approximately 95% non-union (Oliver and Wilkinson, 1992). According to Marsland and Beer (1983) unions in Japan are enterprise based, consisting of all regular and full-time employees rather than based on occupations, classes or trades. This means that their survival depends on the company's survival and there is a remote chance for disputes. Unions generally cooperate with management and support management moves to improve competitiveness and profitability. Because they are enterprise unions, their survival is linked with the welfare of the company. Their loyalty and sense of belongingness remain with the company and they rarely oppose company policies. In this regard, Gakken (1985) points out that inherent in this posture is the danger that the union will become a 'rubber-stamp' union. But Wahab (1989b) has a different viewpoint. According to him enterprise union is a means for workers participation in management. Japanese unions are docile and cooperative with management (Shimada, 1985). This may weakens their ability to defend the interests of their members. Whitehill (1991) observes that it is not unusual for supervisors and middle managers also to be union representatives; the union can function as a career route towards more senior management positions and around one in six executives will have been a union leader.

With these disadvantages there are some obvious advantages of the enterprise-based unions. According to Rahim (1992) the numbers of workdays lost on account of labor disputes in Japan are lowest in the world. The enterprise unions tend to exercise restraint in labor disputes in order not to damage their firm competitiveness. Even during strikes, there is no stoppage of work and workers continue to discharge their duties with full devotion. They only wear black bands as a symbol of protest.

2.1.6. Selection and Continuous Training

Training and development is considered as a part of the job and a continuous process because of the *Nenko* system and low turn over in Japanese enterprises. Oliver and Wilkinson (1992) stated that a vast majority of recruits are taken straight from colleges with the best reputation and educational performance and the people who have worked elsewhere are generally being avoided. Immediately after selection and before job training, there is a period of induction (on average about 10 days), which involves group's residence, team activities, physical exercises and instruction in the history, philosophy, mottoes of the firm and a pledge of the new entrants for best efforts. The aim is to make them realize that they are now members of the family. Following induction, one-year formal training programs are implemented for all newly hired employees. Pre-supervisory training is also given before appointment as a supervisor and technical training is continuously offered to all levels of employees.

The secret of Japanese success according to Putti (1987) may lie in continuous training. This implies that every employee including top managers keeps on training as a regular feature of the job till retirement. The objective is to bring out the potential ability of an employee. With extreme form of job security, low turn over and *Nenko* system, the culture of Japanese organizations is highly conducive for human resource development. Due to aforementioned characteristics, companies have no hesitation in making large investment in training and development. Since they have no danger of losing trained employees, the expenses of extensive training are considered as investment.

2.1.7. Service Overtime

Japanese work more as compared to other nations. They work 1 to 3 months more per year than their Western counterparts. Government of Japan statistics (as cited in Oliver and Wilkinson, 1992) showed that number of working hours per annum by an average Japanese worker exceeded those of average workers in the U.S and U.K by more than 200 and those of average workers in West Germany and France by over 500. Dohse et al. (1985) add that these differences are primarily the result of less paid vacation time and lower absenteeism. Japanese workers are not only eligible for less paid leave than their Western colleagues, they also fail to use that which is available to them and moreover, will even use vacation time in lieu of such leave. By contrast Western and American workers use all of the vacations to which they are entitled.

The Japanese people are known to be the hard workers, the world over. However, this perception of Japan often includes negative elements, such as the view that Japanese are 'workaholics,' pursuing productivity and profit. The Japanese feel that Western perceptions are based on some misunderstanding about some aspects of life in Japan. Gakken (1985) traces the Japanese work ethics to Japan's strong Buddhist tradition where the act of working is accepted as a spiritual discipline and not economic gain. Iwata (1982) adds that it is Japanese philosophy to sacrifice their personal interest for prosperity of the company or country. Japanese always put work before pleasure (Gakken, 1985). They are involved in organizational activities voluntarily and with more commitment than their

Westerners counterparts. Nippon (1982) linked Japanese working habit with history. He stated that, in feudal times, land taxes and tenancy rents were high. The farmers working in their small plots of land needed to increase their harvest. Thus, if the farmers did not put a lot of effort, they could not sustain their livelihood. It is probably the reason, which inculcated the habit of working more and hard.

However, Endo (1992, 1994) and Oliver and Wilkinson (1992) have a critical view about service overtime. According to them the Satei system makes it difficult for a worker to refuse overtime work or apply for paid holidays, as workers who do so are liable to receive low Satei score. They are considered as troublemakers, which may affect their promotion and salary. This overtime is unrecorded and compulsory for which workers receive no payment and are called by Japanese service overtime (Oliver and Wilkinson, 1992). Kamioka (1993) supplements the Endo. He implies that overwork is the result of peer pressures, visibility of performance and the Satei system. It can be concluded that service overtime is a prerogative and regimentation of management, not commitment, loyalty or anything else of workers. Due to this compulsory overwork Japanese are fast becoming the victim of *karoshi* (stress death).

2.1.8. Satei or Koka System (Personal Assessment)

The Satei determines the rate of promotion and level of monthly pay and it applies to both blue and white-collar workers excluding temporary staff and accepted by both workers and union. Endo (1994) observes that Satei (i) influences remuneration by determining both promotion and salary; (ii) assesses factors such as (a) objective measure of performance (b) subjective measure of worker's eagerness, attitude to the work group; and, (iii) potential ability to perform job more effectively. According to Endo the effects of the system include (i) intensive individual competition for high Satei scores; (ii) increase in working hours; (iii) acceptance of managerial prerogative; (iv) under-reporting of working hours; (v) workers refusing to apply for their paid vacations; and, (vi) decrease in worker's leisure time.

However, on the other hand, Japanese companies appear to achieve teamwork at the same time. Dohse et al. (1985) note that the labor process in post-Fordist Japan is favorable for workers. Aoki (1988) and Ogasawara (1992) state that the Satei system makes Japanese firm more effective and it also contributes to productivity improvement and Ishida (1990) asserts that the Satei system and the resulting differential in promotion and pay are consistent with Japanese worker's basic sense of fairness.

2.1.9. Non-Specialized Careers (Job Rotation)

One of the key characteristics of on the job training is the concept of job rotation (rotation of workers from one job to another). Since there is limited upward mobility (LTE, low turn-over and loyalty to one company are the reasons), employees may become frustrated, de-motivated and less productive that is why they are rotated to various departments of the same company. Through job rotation, workers are molded into generalists and can perform multiple tasks. This lengthy continuous training practice enables workers to learn different aspects of the business and establish a comradeship with many other people (Chung and Margaret, 1985). According to Dohse et al. (1985), Japanese management can flexibly allocate workers to do multiple tasks on short notice according to changing requirement, due to non-specialized training, which ultimately increases company's competitiveness.

Takeuchi (1985) states that all employees experience different jobs, understand relationship between different positions and safeguard the interest of the company as a whole. Even engineering graduates are required to do clerical work at the head office in

the beginning of their career and those restricted for clerical job work in factory. Similarly blue-collar workers are trained to handle all sorts of machine. This is done to train them in multiple tasks. However, according to Kenney and Florida (1995) the frequency of rotation varies from company to company. For example, Toyota and Honda rotate workers in the same team quite frequently. In Toyota workers on high stress job rotate their position as often as once an hour. NUMMI rotates their workers at break times or when they need change. Posthuma (1995) point is that through multi-skilled workforce, companies can minimize waste and can also meet changes in the market demand while using the minimum number of workers possible. In short, job rotation encourages teamwork, cooperation and foster informal communication network that help to coordinate work activities across functional areas.

2.1.10. Single Status

Japanese have designed many mechanisms to minimize both the conflicts of interest endemic to the employment relationship and to soften organizational status differentials. For example, in most of the companies managers do not have walled-in offices but sit at desks in a large open common office adjacent to the production facility. In most of the Japanese companies both workers and managers eat in the same cafeteria, wear same uniforms and they also travel (commute) in the same bus. There is an emphasis on workers to clean their work place at the end of the day. Many factories do not deploy sweeper for this purpose (Singh and Chander, 1990). In many factories, supervisors, engineers and workmen sit together once a day to discuss problems in production. This extensive communication and consultation characteristics of Japanese companies increases motivation, morale, loyalty and total commitment of the workers. Moreover, collective physical exercises, company songs, managers and clerical staff working the same hours as production employees and company sponsored sports according to Abdullah and Keenoy (1995) are the variable range of single status terms and conditions of employment.

2.2. *Manufacturing Practices*

2.2.1. Total Quality Control (TQC)

It is an American idea, which has taken roots in Japan. According to Feigenbaum (as cited in Oliver and Wilkinson, 1992) and Hill (1991) the design of the goods and services is such that it meets the needs of the customer and not the producer. It is a process in which quality is assured at source (Kaplinsky and Posthuma, 1994). Conventional way of assuring quality is inspection at the end of the production process but in Japanese system finished products are not inspected, rather there is an in-built system of quality control through ensuring quality with-in the production process. For example, while the automobile industry in other countries maintains according to Dohse et al. (1985) an expensive organization for quality control separate from production management. Japanese workers largely carry out production, inspection and repair functions themselves. Thus Japanese maintain quality with less number of workers. Japanese say quality cannot be controlled through inspection and rejection of the bad product. Quality comes from making the product right in the first place by rectifying the error at the spot (Film: Quality control). Humphrey (1995a) adds that quality is achieved through self inspection, machine capability improvement, statistical process control and automation. TQC includes all phases of a company's operation ranging from design, raw materials, machinery, equipment, tools, work processes, finished products and after sales services. It is the cornerstone of the Japanese productivity improvement programs. According to Wilkinson, Morris and Munday (1995), TQC system is characterized by a delegation of responsibility

and accountability to the level of the team, which means teams take on some of the tasks, which traditionally would be undertaken by the management.

2.2.2. Quality Control Circles (QCC's)

The QCC's are the heart of Japanese quality consciousness and a significant component of the TQC concept. QCC's are fundamental work group with seven to ten member employees each undertook voluntary studies on tasks for refining quality in line with the company's total policy and regularly hold meetings at which they discuss the results of their efforts and help one another for enhancing quality (Izumaru, 1994). According to Saleem (1992) QCC's not only criticize and improve the quality of their output but also concern themselves with plant safety, better working conditions, defects and time reduction, quality improvement, cost efficiency and ultimate profitability of the products they produce. Cecille et al. (1992) add that as soon as a problem arises, QCC's have meetings to discuss the cause and rectifications are sorted out.

When an idea is implemented which results in better quality search for new idea starts and this circle continues. Workers are awarded for innovative ideas and involvement. QCC's are a participative mechanism creating involvement in the innovative process and motivation leading to job satisfaction, increased commitment and on the top of it good industrial relations. However, Schonberger (1982) suggests that significance of QCC's in Japan itself have been overrated. In support of this, he claims that many Japanese companies had reputation for high quality products before they introduced QCC's. He further argues that workers and foremen are not in a position to solve major problems; rather they are only tackling minor difficulties. Further, workers may be pressurized through Nenko system to take part in such activities, so it is another example of coercive management.

2.2.3. Just-in-Time (JIT)

Japanese success has also been due to effective planning and integration of production processes. One example of this production system emphasis is the JIT system of production scheduling and inventories control that makes the assembly of automobile appliances and many other products almost continuous. JIT is a form of production characterized by making the production through the concept of exact number of parts needed, is supplied (Aoki, 1988). In other words, it is an inventory elimination system.

To be more provocative, JIT refers to materials parts and components that are manufactured and delivered just before they are required. Each consignment carries a small card (kanban) specifying the parts, their origin, destination, identity and the quantity required (Khan, 1999; Izumaru, 1994; Wilkinson et al., 1995). It means buffer stocks and work in progress are kept in minimum. Dohse et al (1985) voice similar concerns by stating that Japanese avoid 'excess manpower' and even can produce with under manning. In JIT system, everyone has a full job and everyone is working full time. Typically, Japanese provide manpower at only 97% of the line rate. The other 3% are made up by 'extra effort' or, by job rotation. To conclude, JIT carries the idea of zero inventories, zero defects and zero waste which contradicts the conventional costs of inventory which have dominated production and operational management in the USA and U.K. JIT is not a supply driven system, rather it is a demand driven system. It is management of adjustment of resources. In JIT workers say this is what we need, nothing more. In western management system workers say this is what we need, nothing less. The idea of JIT is

applied in almost all the activities of an organization for example, purchasing, producing, selling and on labor-force (recruiting) as well.

2.2.4. Lean Production

This flexible production system works under JIT and TQC and adjusts itself with fluctuations in demand, requires a flexible workforce (team). This sort of team working or cellular manufacturing simplifies workflow and permits reductions in work-in-progress. The basic idea behind cellular manufacturing is to group machines by family rather than by function. There are two key methods to attain such flexibility in production, (i) a particular type of machine layout, and (ii) the use of multi-skilled workers who can rotate their jobs (Humphrey, 1995b). It focuses not only on the factory but also factor outside the plant such as the design function and other firms. This new paradigm of production in contrast to mass production system represents a decisive break with established forms of production and offers substantial improvements in performance.

2.2.5. Kaizen (Continuous Improvement)

A distinguishing feature between Japanese and Western systems of production is the Japanese belief that the system can be improved continuously. The Kaizen philosophy assumes that anyone's life style including his work habits deserves constant improvement. TQC, JIT and many other systems are part of Kaizen. According to Kolm (1985) Japanese preference for perfection rather than satisfaction is derived from Buddhism. Rehder (1990) states that a leading U.S government official has a sign on his desk stating, 'if it works, don't fix it'. In Japan the same sign would most likely read, 'if it works, improve it.' Kaplinsky and Posthuma (1994) argue that kaizen refers to the process of continuous improvement (CI) in production procedures and product characteristics. Graham (1994) point of view is that it means searching for a better way.

Every one in the organization is expected to continuously make his job more efficient. Kaizen involves time and cost study and it is used to speed up each person's work process. The goal is to utilize every second of every minute. Kaizen is a philosophy of (i) searching out waste (activity that does not add value to the product is a waste); (ii) produce with Zero defects; and, (iii) never satisfied with quality performance.

2.2.6. Zero Defects

Quality to the Japanese means "error free operation," any defect in any part of manufacturing operation, therefore, becomes a quality problem. They constantly work to improve equipment design, inventory control system and workers skills through cooperation at all levels. The ultimate goal is error free operation and perfect product. For them every stage of production from designing to distribution is equally important. This is linked with Japanese cultural values i.e., "pursue the last grain of rice in the corner of the lunch box." In fact, Japanese are not idealist, American willingness to stop at 95 percent accuracy coupled with Japanese unwillingness to accept 95 percent accuracy is what makes them able competitors.

2.2.7. Ringi (Decision making by consensus)

This is the most Japanese of everything. The decisions in Japanese organizations are not made from the top down, but are generally arrived at from the bottom up (Gakken, 1985). Since there is a great deal of trust among the hierarchical and functional groups and this

makes it possible to adopt the bottom-up approach in decision-making process (Edgar, 1981). Everyone especially those who are going to be effected by the decision is involved in its formulation, with the logic that since they are going to implement the decision, therefore, they should participate in decision-making process. Japanese assume that differences can be resolved not by adversary means or by authority, but by gathering as much information from as many sources as possible. According to Rehder (1990) in case of conflict, four or five elderly employees would be assigned the task of contacting employees to elicit their opinion and get consensus.

The ringi system is often criticized as being a formal, lengthy and time consuming. Thome and McAuley (1993) argued that no area of Japanese management is as laden with mystery as its practices of decision-making (long and complex consultations) and leadership. Nevertheless, the quality of decision is much higher. Since such decisions are owned by the employees, they would strive hard for the success of the decision.

2.2.8. Team Effort

At the heart of the Japanese approach to industrial management is the institutional form of team working (Harriss, 1995). QCC's, ringi and TQM are some examples of team working. Tasks are not assigned to an individual but are assigned on team basis, which consist of small number of people. Each automotive plant has organized its production activities on the basis of teams, which include inspectors, technicians and operators, all under the control of a team leader and supported by multi-skilled floats and is being held accountable for output, quality and above all meeting the demands of its customers (Wilkinson et al., 1995). Gains such as team responsibility, ability of members to switch between jobs, less scrap, improved work method, initiative, more output, commitment, trust and competency are the results of all these small group activities. In addition, according to Kenney and Florida (1995) team can exert social pressure to ensure that employees work the entire day with regularity and punctuality. This is in contrast to the west, where the labor has greater discretion regarding punctuality.

2.2.9. Suggestion System

Most of the Japanese companies use suggestion system to harness worker's knowledge and ideas (Kenney and Florida, 1995) For instance, Honda and Toyota have fairly well developed suggestion systems. Toyota's averages roughly 88 suggestions per month. Nissan has a mandatory suggestion program. Toyota Company receives 2.5 millions suggestions every year from employees of all rank and this has resulted in savings of millions of dollars and improvement in quality (Wahab, 1989a).

2.3. Cultural Practices

2.3.1. Groupism

Groups are the primary social units throughout Japan, which is a dominant feature of the Japanese culture and religion. The individual is seen as part of a group. Instead of self-interest and individual personality, one can find the concept of group personality and common interests. The success is always considered as the success of the group. According to Nippon (1982) and Gakken (1985) Japanese groupism's earliest traces can be found in the rice cultivation method, which required group effort and joint cooperation. Buddhism according to Pascale quoted by Chung and Margaret (1985) may also have influenced the Japanese to be more harmonious in group settings. Japanese successfully

reflected the same tradition in business and workplace, where the workers think, work and behave like a group. However, groupism in Japan has both negative and positive sides. On the negative side, it is reminiscent of the earlier blind obedience to the military and feudal lords (Gakken, 1985), but on the positive side group unity has contributed to the nation's phenomenal economic growth.

2.3.2. Confucian Ethics

It is a discipline of life style in Japan (Putti, 1987). It emphasizes the importance of loyalty and commitment to organization, respect to elders, discipline, order, hierarchy, cooperation and helping each other, hard work, altruism, education, human goodness and filial piety. In fact, typical features of JMS such as seniority system, respect to boss, commitment, common interest and mutual trust could have been derived from Confucian ethics. This doctrine encouraged businessmen to be more altruistic and thereby they gain the public's respect.

2.3.3. Homogeneous Society

Japan is a uniquely homogenous society, varying little by region, religion, race, blood, genes or person; Japanese culture is uniform throughout the country. Due to this homogeneity, Japanese are well suited to cooperative work. Fucini and Fucini (1990) observe that the Japanese are all the same, you can take ten Japanese and ask them work together, and they will. They have all been brought up the same way. As a result they have established mutual understanding, teamwork and a very effective non-verbal communication system and control in business. For instance, some of the features of JMS such as, informal job description, informal employment agreement, top tier cooperation, common interest and understanding could be due to the homogeneity of their society. Moreover, common cafeteria, same uniform, single status, morning exercises and songs, and traveling in the same bus, provide opportunities for informal communications and control.

2.3.4. Nationalism

Japanese always put their national interest first. Drucker (1981) states that Japanese start out with the question, "what is good for the country?" rather than the question. "What is good for us?" Jafarey (1992) voice similar concerns by stating that the Japanese's first and foremost loyalty is to their country, then to their organization and lastly to themselves and their family. For instance, the objectives of almost every company are consistent with the national economic goals and it is the country (not the firm), which is usually referred to in respect of good quality products or services rendered. In addition, Japanese are too conscious of their dependence on imports for energy, raw materials and food due to this they take competitiveness very seriously and this has become almost their second nature. However, extensive government support, which the firm receives, may be the reasons for this sort of behavior.

2.3.5. Company Loyalty

In Japan, both employees and employers perceive company as a big happy family. This family feeling creates a positive climate for building loyalty among the employees. The thinking that when the family makes profits, the members of the family can also benefit, is reinforced constantly in the minds of employees. In other words, company is considered as an extension of home. Participative style of management further strengthens this feeling.

There are two possible and plausible explanations of loyalty. First, it is a carryover of the feudal practice of life long loyalty to one's lord (World Executive Digest, 1990) where the landlord demanded an absolute obedience and loyalty from his tenants. On similar analogy, joining a company is less like entering into a job contract and more like joining a fraternity as a lifetime member. The second explanation is that loyalty, trust, and the like were according to Morris and Wilkinson (1995) invented traditions which appealed to pre-modern values (Confucianism) but which were used primarily to legitimate courses of action which served the perceived interests of business elite. In other words, what look like loyalty in Japan is really submission to inevitable and not easily assailed managerial regimentation. Against this historical background, the employee's sense of loyalty and commitment is further strengthened by the system of Lifetime employment, seniority based pay and promotion, concept of kacho, provision of basic necessities and other welfare schemes.

2.3.6. Harmony (Wa)

The Japanese management model is based on complete harmony and congruency of goals among business, labor and government, due to this people call Japan "Japan incorporated" (Drucker, 1981). The concept of harmony is the best example of homogeneity and Confucian teaching. It emphasizes a high degree of collaborative behavior rather than competitive behavior among members of the organization. In addition, LTE and respect for elders also bring harmony to the company resulting in greater human interaction, growth of fast friendships, unique understanding, cooperation and coordination and close identification with the goals of the company. In fact, Buddhism may have also influenced the Japanese to be more harmonious in group settings and living with others.

2.3.7. Company Song and Morning Exercise

In most of the Japanese companies, the workday starts with the singing of the company song, discussing the principles and philosophy of the company and voluntarily participation in the morning exercises. The philosophy behind morning exercises is that happy and efficient worker must be both physically and mentally fit (Film: Quality Control). Every morning before the machines are set running and the computers are switched on, a member of the relevant section steps out in front of the others and make a little speech (called message for the day in Japan). Then, all together, they strike up a rousing chorus of the company song. Every firm, according to Ellers (1993) has its own company song. These songs whip up Japanese appetite for work, and these are designed to express the spirit of the company.

3. Sources and Data Collection

The main source of data is secondary which comprised books, journals, magazines, official documents, newspaper articles, and published case studies. However, some primary data is also collected in the form of visits to some of the Pakistani companies working under Japanese management system (JMS), interviews and observation, and experiences of developed and developing countries will also be used for illustrative purposes to help the research. As mentioned earlier, this research intends to analyze the principle features of JMP and their relevance to the Pakistan's conditions. There is no tested and operationalised model of JMS in transitional societies as yet. Therefore, experiences and case-studies of different industries of developed and developing countries, which have adopted or are attempting to adopt JMS, will be used as a theoretical base for

this paper. Rich literature on actual experiences of many developing and industrialized countries in success and failure of JMP are available for analysis.

In addition, many research studies such as Dohse et al. (1985), Humphrey (1995), Posthuma (1995), Kenney and Florida (1995), Drucker (1981), Morris and Wilkinson (1995), Kenney and Abdullah (1995), Endo (1994), Thome and McAuley (1993), Dedoussis (1995), Hill (1991), Harriss (1995), Kaplinsky (1995), Elger, Tony and Smith (1994), Oliver and Wilkinson (1992), Rehder (1992), and Singh and Chander (1990) were conducted from time to time on the transfer of JMS in the developing countries. The experiences of these countries and findings can also be analyzed and used as a theoretical base in this paper.

4. Discussion

Granting that the Japanese management practices are a key to Japan's success, two lingering questions still remain unanswered. (i) Is the JMP dependent to a typical social context and therefore are not transferable to other countries, or, is it the result of more sophisticated management that can be adopted irrespective of the cultural context; and, (ii) to what extent is the Japanese management system really an alternative organizational paradigm?

The reasons for Japanese success in management of people are controversial even among the Japanese. There are clearly two groups of scholars with different opinions regarding the source of good people management and applicability of Japanese model in other countries. (i) The Culturalist and Institutionalists (Takeuchi, 1985; Kikuchi, 1984 etc.) see the roots of JMP are in a unique set of cultural traits which gave rise to homogeneity, order, discipline, cooperation, harmony, teamwork, consensus decision-making, commitment and loyalty and in a unique institutional environment such as LTE, Nenko, enterprise union, and paternalistic attitude. In other words, they think that the source of good people management is Japanese culture and absence of Japanese cultural conditions in other countries comprises a likely insurmountable obstacle to transfer the system and hence they doubt the transferability of the model. (ii) The Managerialist (Shimada, 1985; Ishida, 1981; Dedoussis, 1995) emphasizes the importance of various incentives and management style as a source of good people management. They reject the Culturalist thesis and assume that this model is universally applicable across countries. They demonstrated that the institutional environment in Japan emerged only in twentieth century after the World War. Kinzley (as cited in Morris and Wilkinson, 1995) states that loyalty, trust, harmony, order, commitment and the like were invented traditions which appealed to pre-modern (confucianist) values but were used primarily to legitimate courses of action which served the perceived interests of business and state elites. Hence care must be taken not to confuse elite ideologies with real social and cultural norms.

4.1. Case for Applicability

Applicability of JMP in developing countries like Pakistan is a complex but interesting debate. The JMP in many countries have been transferred to and are operating successfully. The key thesis of Ouchi's theory 'Z' (1981) is that the transfer of JMS is possible. The arguments for adoptability of JMS are as under:

Those who have some doubt regarding the applicability of JMS, it is wrong notion in their minds that development in Japan was due to its culture. JMS is not culture specific; it is

due to their superior strategy, management style and the efficient system, which makes the difference. Japanese competitiveness, performance and people make them number one in business in the world. Some managers may argue that the Japanese success is primarily due to the supportive government policy, low cost financing and friendly unions rather than due to any particular managerial practice. But many experts such as William Abernathy, Robert Hays, William Ouchi, and Richard Pascale acknowledge the importance of these factors, yet cite the JMS as the key to Japan's success. A large number of practitioners, according to Chung and Margaret (1982) feel that what the Japanese are doing is "good management", meeting the needs of both the employees and their organizations and assert that such good management should be used universally. In short, it is the Japanese management philosophy, which is the decisive factor and can be transferred to other cultural milieus.

In Japan what look like loyalty, commitment and involvement is often submission to managerial prerogative and strict discipline. It is strict management, not the values that make the Japanese committed and loyal. For example, the way they deal with absenteeism and troublemakers those who avail paid holiday (through counseling and involvement) is not cultural but managerial.

If LTE, Nenko and enterprise union are not working outside Japan, it is not because management style is unique. Dedoussis (1995) finds that in fact there is not an attempt to transfer these practices outside Japan because these practices are costly and there is nothing cultural or unique. Moreover, these practices even in Japan are more likely to be found in the large firms and are restricted to the core employees only and are denied to temporary and to female employees. As mentioned earlier that only 30 percent of Japanese employees are enjoying these terms and conditions and maintenance of these practices are under increasing threat in Japan itself.

Kenney and Florida (1992) observed that transferability of model may be specific to industry; in particular, it appears to be adaptable in the automobile industry as compared to electronic industry. This is not convincing observation and again a distinction between core and periphery. Automobile industry requires massive capital costs, has intense competition, dominated by male workers and producing higher value added products. It is a core industry with core employees which requires the companies to adapt the lean production system. In contrast, electronic industry is working under labor intensive technology and involves low value added activities in the US and UK, while in Japan it is often sub-contracted. That is why Japanese companies (electronics) in USA are less inclined to transfer their home practices. These companies are similar to those of Japan's periphery and they are not willing to transfer JMS in periphery companies.

Although the Japanese lean production system is not an alternative to American mass production system but it is more competitive. There is a shift in the market i.e., more emphasis is laid on product's quality because of intensified international competition. In many cases the JMS has been applied to and is operating successfully. According to Cheema (2000) JMS has already replaced the American system all over the world. Now only one question remains i.e., when does Pakistan switch over to JMS? It requires active efforts to resist the prevailing environment and successfully complete the transfer process.

Wahab (1989a) advocated that during 1947 to 1955 as a young country Pakistan made UK as the model of excellence. From 1955 onward, it made USA as his ideal by introducing American system in the country. In fact Pakistan has practiced the UK and the USA, system against the background of a tribo-feudal social environment with religious dogma. Its eastern values system corresponds much more with the Japanese than the Western. If JMS is properly modified to suit Pakistani socio-economic environment, and institutional setting it will indeed prove productive for the country. Now Pakistan should adapt “look East strategy” which implies benefiting from the thinking and experiences of countries in the East specially Japan.

The competitive success of Japan has introduced new concepts of quality. The system has already replaced or is in the process of replacing the American and British systems of management all over the world. Some instances of replacement are as follows:

- The transfer of JMP has been remarkably successful in the Toyota and Honda plants in the California, USA (Kenney and Florida, 1995). These successes are forcing U.S automobile to attempt similar efforts. However, in electronic Industry attempts to transfer JMP are limited to certain JIT / TQC techniques.
- According to Singh and Chander (1992) JMS is being looked upon as an alternative for many managerial problems. Even the Western Countries like the U.S.A and U.K are adopting these principles. Wheelwright (1981) stated that Motorola’s TV assembly plant in Franklin Park, Illinois, USA suffered from low productivity and low quality (more than 150 defects per 100 sets), before Matsushita (a Japanese company) purchased it in the early 1970’s. Within three years after the purchase by Matsushita, the plant increased its productivity by 30 percent and reduced its defects to fewer than 4 per 100 sets.
- Humphrey (1995b) explores the potential for the transfer of JIT / TQC production system in Brazilian industry where some aspects of JMP have been successfully introduced.
- Wilkinson et al. (1992) conducted a survey of Japanese transplant in Wales (UK). In all of the companies visited (22 plants), managers are well versed in JMP and there had been a successful attempt to transplant JIT and TQC.
- A number of western firms have begun to meet the challenge posed by Japan with considerable success since 1980. For example, one of the most efficient plants in the Nissan Company is now in the north-east of the U.K, and the Mazda plant with the highest quality levels in the Mexico (Kaplinsky and Posthuma, 1994).
- The Indian subsidiary of Xerox, Modi Xerox begun production in 1985 and just after seven years nominated by Business World Magazine as one of the 50 most respected company in India and was placed first in the office automation category (Kaplinsky and Posthuma, 1994). The secret behind this tremendous success was JMP.
- Escorts Ltd of India entered into a licensing agreement to produce Yamaha motorcycle in Surajpur (India) and started production in 1986. In early 1990 Escorts captured 40 percent of total Indian market (Kaplinsky, 1994). Escorts Ltd. is working under JMS.
- In India among the various companies, which have experienced Japanese methods of production are Escorts, Hero Honda, Bharat Heavy Electricals Ltd, Indian Petro Chemicals Ltd, Swaraj Mazda and Eicher Motors etc. Most of the JMP like (i) common uniform, office and canteen; (ii) consensus decision-making; (iii) QCC’s;

- and, (iv) morning exercises are working well in all these companies. According to Singh and Chander (1990) one can observe that productivity is high in companies in India with Japanese collaboration.
- The Johnson, Ouchi paper based on a study of twenty-one Japanese companies operating in the United States attributed their high performance to five traditional Japanese management and organizational characteristics successfully employed with American workers. Other studies tended to be quite enthusiastic and reported that transplanted JMS was just as successful in the US with American workers as in Japan with Japanese workers, and in many instances generated higher productivity than comparable American firms (Rehder, 1990).
 - Honda Atlas automobile plant in Lahore (Pakistan) has also entered into a licensing agreement to manufacture cars. Some of the Japanese manufacturing principles are working there wonderfully. The cooperation and trust between the workers and the management was ideal. It was surprise to see that both managers and workers wear same uniform, and take their meal together in the same cafeteria. However, the extent of Japanization in the automobile industry is still quite limited.
 - Aamar textile, Lahore (Pakistan) is another example of successful operation of JMS. This is perhaps the best example of JMS transferability in Pakistan. One could observe that TQM, QCC, CI, and many other techniques are operating very well. Aamar textile is exporting 100 percent of its production to the USA. However, TQM, Kaizen, job rotation and training are although in place, but still in rudimentary form.

4.2. Case against Applicability

Japanese industry is characterized by a unique set of industrial relations and management styles. Shah (1992) argued that the JMS is not comprised exclusively of certain management practices in Japanese companies but it consists of certain values, norms and governmental guidelines, which facilitate smooth functioning of the Japanese economy. No doubt that the JMS is better suited to meet the requirements of modern manufacturing than the western system and it also satisfies basic human psychological needs to a greater extent. But it is difficult to say that the system will be able to perform well in the socio-economic and institutional setting of Pakistan (Singh and Chander, 1990). It is true that the salient features of JMS have evolved in a cultural and sociological setting unique to Japan but also have evolved in an institutional setting (corporate culture) and culture does matter in relation to a particular institutional context. Due to the vast differences between the two cultures (corporate) the transplantation of the JMS in Pakistan would be difficult if not impossible. Numbers of practitioners question the applicability of JMP in other countries. For example, Cole and Edgar quoted by Chung and Margaret (1982) argue that JMP are so unique that they cannot be successfully exported abroad. If developing countries want to adopt the JMP, they need to adopt both Japanese management philosophy and cultural values. From this perspective, the transfer of JMS to an alien environment would likely to prove highly problematic. The institutional differences and similarities between Pakistan and Japan (in other words, what might be relevant and what might not be?), are as under:

JIT and zero defects cannot work in Pakistan. The two-hour inventory with zero defects is not possible fully to be implemented in production. Timeliness of delivery of components is a significant problem for the industry. Low stocks also mean that these inputs supposed to be defect free. For example, in India, Modi Xerox found that its quality problem was

largely related to the poor performance of its steel shafts. This in turn was caused by the low quality of roads as much damage was caused in transit (Kaplinsky and Posthuma, 1995). The problem of poor vendor capability is compounded by poor physical infrastructure. In order to transfer JIT, it requires broad and fundamental changes within companies for its full benefits to be achieved. These changes such as quality production, delivery time, capacity to make major innovation, enterprise union, team work, multi-skilling, abolition of inspection, no absenteeism, acceptance of responsibility for the quality of work, and strict discipline are not easy to carry out and can be influenced by factors beyond the power of management to control. So, many firms may be unable to carry through the logic of JIT.

The experience of QCC's is not that rosy. Outside Japan there are few success stories of QCC's. In Japan QCC's are compulsory and permanent feature. One likes it or not, one has to sit late without extra-payment and attends QCC's meeting (managerial regimentation). This type of docile, obedient and submissive workers cannot be found in Pakistan. Moreover QCC's activities primarily involved teamwork and Pakistanis are individualistic. In addition, hierarchy is another problem in the way of QCC's. Managers are powerful and they claim that they know the best. Such type of managerial behavior is a hurdle in consensus decision-making in the QCC's. However, TQM, Kaizen and continuous training might succeed. Both TQM and Kaizen are the central theme of JMS. By considering the training as an investment, Pakistani companies can train their workers and encourage them to submit written suggestions for improvement.

LTE may not be applicable especially in textile sector because of high uncertainty and economic pressure. It is very costly to fully implement lifetime employment in the Pakistan's industry. Due to this, it is difficult to motivate owners to offer LTE to their workers even in more profitable industries like Aamar textile and Honda Atlas automobile Lahore.

Lack of commitment, dedication, involvement and willing compliance is another obstacle. JMS demands willing cooperation from workers, not just the compliance, which is missing in case of Pakistan. Consider the differences in reaction when the Mazda Corporation was faced with bankruptcy in the early 1970's. At that time workers and management agreed to take a 50 percent cut in pay to save the company, but every one was kept in the payroll. In the case of Pakistan, one can just anticipate that workers and management would not do the same in a similar situation.

As compared to Japan, the employees in Pakistan are not that disciplined and punctual. They are lazy and want high pay without contributing anything. They are not disciplined if they choose to come late or leave their work early. Workers in Pakistan take their vacations as a right as compared to Japan, where, there is a tendency to regard paid holiday as a privilege. Pakistan is a class-ridden society, which creates a feeling of status consciousness. This difference in the work ethics is one of the differences in national character. Moreover, in the Jafarey's (1992) opinion, Japanese first and foremost loyalty is to their country second to their organization and thereafter to themselves. How does this compared with the attitude of average Pakistani? Whether one likes it or not the fact has to be faced that for the vast majority of Pakistanis, all loyalty and commitment begins and ends with themselves.

In Pakistan, employees tend to be more individualistic instead of deriving pride as being part of a team, whereas JMS is a product of group oriented society. The Japanese public and private sectors, their employees and clients are participating in an intense cooperative working relationship hardly known in Pakistan. Collective orientation of Japanese is different from the individualistic orientation of the Pakistanis. Moreover, the Pakistani society is diverse as compared to homogeneity in Japan. Regionalism and ethnicity are two main hurdles to work as a team. To call mob, a team and to have daily meetings is not enough. Team work in real sense means: (i) the spirit of family' where each person respects other; (ii) team responsibility; and, (iii) workers ability to switch over between jobs. Operationalization of this type of teamwork may not be applicable in Pakistan because of regionalism and ethnicity.

The Pakistani society is plagued by low rate of education. Firms need workers with the ability to read and write, follow instructions, communicate and discuss ideas and respond to training. Workers should be able to think and analyze problems and offer solutions. Low level of formal education and vocational training among the local labor force and inefficient infrastructure such as transport, telecommunication, roads and power supply are the primary factors which could complicate the adoption of the JMS in Pakistan. In addition, macroeconomic and political instability and poor labor relations, which differ from the conciliation type relationship in Japan and derive from the class system, are the main barriers to distort efforts to introduced JMS.

According to Bajwa (1992) Pakistani society is political oriented and emotional by nature. There are numerous political groups with no political and ethical values. Change of loyalties of members of parliament is often reported in the press. Get rich syndrome in Pakistani society leads to evasion in taxes, corruption, cheating and bribery etc. Demonstration of power and authority is another psyche of the society. Can the loyalty to the organization and in-built honesty of the Japanese workers is emulated in Pakistan with existing state of morality? Moreover, under political pressure and feudal management, Nenko system is difficult to work.

Major problem of Pakistan's society is that it is hierarchical by nature. It is difficult to create non-hierarchical flat organization in this culture. All officials demand a rank. Wearing same uniform, traveling in the same bus and taking meals in the same cafeteria are the sort of things, which are against hierarchy (Aamar textile and Honda automobile are elite companies and cannot be generalized). Single status facilities such as open-style office, extensive communication and consultation characteristics of Japanese companies are far less prevalent in Pakistan. Executives want individual offices. The problem with them is that they grown up as bureaucrat. Equality in organization implies equality among blue and white-collar employees. In Pakistan, one can observe a lot of discrimination in terms of working conditions and facilities enjoyed by workers and their bosses. Salary differences are also high among them.

Concerning the second question, JMS is not an alternative paradigm to Taylorism or Fordism. In fact it is more or less an extension of Taylorism. It is the practice of organizational principles of Fordism under very strict and disciplined management. Dohse et al. (1985) observe that Toyotism is not an alternative to Taylorism, but rather a solution to its classic problems of the resistance of the workers. The basic theme of Taylorism i.e., 'one best way of doing the things' is almost present in JMS in the form of work processing sheets and assembly line principles. Moreover, Toyotism is not different from Fordism in its goals but the way in which these goals are achieved, even the process to achieve these

goals are similar sometimes. The time and motion study concepts of Taylorism are called JIT and Zero defects in Japan. The specialization and standardization of work are very much in practice in Japanese organizations. Japanese are practicing the same old concepts under more authoritative management by using more fancy terms like JIT, TQM, QCC's and team management.

5. Concluding Remarks

It emerged from the study that the transfer of JMS is possible in spite of different cultural and institutional environments in various countries around the world. However, the extent of these practices like teamwork, TQM, QCC's, job rotation, etc., might vary. In the context of Pakistan, the wholesale application of JMS is difficult. It may not be possible to apply the entire philosophy of JMS overnight but some aspects of JMS such as TQM, CI, continuous training, multi-skilling, plant maintenance, abolition of inspection, and switching flexibly between jobs are very relevant and can be applied selectively and gradually in the case of Pakistan. Kono (1982) and Ishida (1981) argue that it is misconception to think that features of JMS are too indigenous to Japan and cannot be transferred to other countries. While some of these features have their roots in Japanese culture, others are purely based on rational judgment and in fact many of them were borrowed from the west. It is true that few practices have some relation with culture for instance, morning song, harmony, nationalism, order, commitment, identification with the company, involvement with the work and informal communication but all these qualities are not required for producing a quality Toyota. The basic theme of Japanese management is the Kaizen (CI) which implies to improve or try to improve what is being done. CI can be replicated in Pakistan. Management can ask workers to improve and hopefully they will do it. It means that successful transfer of JMS depends more on the establishment of managerial prerogative than cultural and institutional values and mores.

The aim should not be to copy exactly what the Japanese are doing rather it should be to modify these techniques according to Pakistani environment and use Japanese experience as a source of new ideas for improving performance. The Japanese institutional set up and management techniques are different from traditional Pakistani public and private business environment. But they are simply different; there is nothing mysterious about them. For example, willing cooperation and compliance of Japanese workers has nothing to do with culture, in fact it is linked with institutional context i.e., their corporate culture and strict management. Pakistan has to create its own model by studying the management systems of the US, UK and Japan. If these models are suitably modified to suit Pakistani social and cultural norms, this will provide a more conducive climate for productivity improvement.

It is hoped that the finding of this study will be taken into consideration by the policy-makers and business leaders. The findings of the study could also stimulate further research in this field. This research could also be interesting and benefiting especially for those developing countries that are currently undertaking similar changes.

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The Impact of Exports, FDI and External Debt on Exchange Rate Volatility in Pakistan.

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Abstract

This study endeavors to examine the impact of Exports, Foreign Direct Investment and External Debt on the Volatility of Exchange Rate in Pakistan over the period 1960-2008. For the purpose of investigating long run and short run relationship the study uses autoregressive distributed lag model (ARDL), a cointegration test and ECM error correction methodology respectively. Results indicate the existence of the cointegration relationship in the empirical model. The estimated coefficients show that one percent increase or decrease in exports will lead to 2.0043 percent increase or decrease in exchange rate volatility. A one percent increase in FDI will lead to approximately 0.6 percent decrease in exchange rate volatility. A one percent increase in external debt will lead to approximately 1.41 percent decrease in exchange rate volatility.

Keywords: Exports, FDI, Exchange Rate Volatility, Autoregressive Distributive Lag Model, Error Correction Mechanism.

1. Introduction

Since the currency crisis of 1990s, economists have had a renewed interest in the fluctuation of exchange rates. For decades exchange rates remained the centre of macro economic debates in the developing markets. In many countries it was used for controlling inflation while in other countries like Latin America it was used for imposing tax on export sector¹⁵. Increase volatility is the result of more violent shocks¹⁶. Volatility in real exchange rate refers to the fluctuation of real exchange rate vis - a -vis the long term patterns and trends. Exchange rate volatility may be defined as risk connected with unanticipated movements (in either direction) in the exchange rates. More specifically it may be defined as the overshooting (and undershooting) of exchange rate of the domestic currency when the short run exchange rate of a domestic currency depreciates or appreciates against its trading partner's currency at rate that is more or less than the equilibrium exchange rate¹⁷. Thus the exchange rate may be taken as the price of one currency in terms of another¹⁸. Exchange rate measures the relative worth of domestic currency in terms of another.

The notion of globalization – that we are moving towards a single global economy is gaining a lot of popularity and acceptability. US economic policies have a strong effect on other economies. For example a tightening of monetary policy which causes the interest rate to rise affects interest rates world wide and would also change the value of the dollar relative to other currencies. Exchange rate volatility has acquired a special importance in this world economy due to two main reasons. The first reason is the impact of volatility on

¹⁵ Edwards S. (2006).

¹⁶ Georgios Karras, Jin Manlee, Houston Stokes (2004).

¹⁷ Siregar R. and Pontines V. (2005).

¹⁸ www.newyorkfed.org

a country's monetary policy and especially for those countries that have export oriented vision and where export growth stimulate the domestic economy's growth. Secondly, the investors nowadays are participating in international market by selling and purchasing assets such as corporate bonds or treasury bills¹⁹. They had an eye around the world on most attractive yields. They move their assets around the world and hence link the domestic and foreign asset markets. The ultimate effect would be on income, interest rates and hence exchange rates. Volatility of exchange rate is one of the main sources of economic instability. Pakistan history showed volatile exchange rates. At time of independence Pakistan rupee traded with Indian rupee 1:1.

Pakistan currency devalued to Rs 4.76 to the United States dollar on July 31 1955. In December 1971 because of war with India the Pakistan rupee touched Rs 25 to the United States dollar²⁰. From 1988 – 1989 to 2000 – 2001, Pakistan rupee showed a continuous depreciation. Appreciation of rupee was 6.73percent and 3.9percent in 2001 – 2002 and 2002 – 03. The FY – 04, 05, 06 and 07 again showed depreciation of 0.6percent, 2.61percent, 0.84percent and 0.43percent at end of periods respectively²¹. Thus the need is to analyze the exchange rate volatility. For this purpose the study has used exchange rate volatility as dependent variable while exports, foreign direct investment and external debt have been chosen as independent variables.

2. Literature Review

Several studies have been conducted to empirically test the relation ship between exchange rate volatility and macro economic indicator. Especially after the currency crisis of 1990s economists are highly interested in exchange rate movements. In order to understand the objectives methodology and findings an effort has been made to reproduce the results of the major studies on exchange rate volatility.

Rincon H., (1998) examined whether the exchange rate is helpful in determining the short and long run trade balance in Colombia. This study tests the validity of Bickerdike-Robinson-Meltzer BRM and Marshall-Learner ML conditions. Devaluation improves the trade balance. This is known as BRM model. According to ML condition the absolute values of the sum of the demand elasticities for exports and imports must exceed unity for a positive effect of devaluation on trade balance. The data is quarterly time series for Columbia from the period 1979:1 through 1995:4 Augmented Dickey Fuller (ADF) test and Schmidt-Phillips (SP) for unit root is implemented in series in all levels. The results showed that null hypothesis of unit root cannot be rejected at 5percent level of significance for all time series in case of ADF. Variables seem to behave I(1) process. Further the econometric procedure used is the Johansen and Juselius' approach to estimation of multivariate cointegration systems. The variables include import, exports, a real effective exchange rate index, narrow money (M1), the real gross domestic product, consumer price index. The results showed that exchange rate indeed is helpful in determining short and long run behavior of Colombian trade balance. BRM and ML conditions are also supported. The caveat here is that capital market is not considered. Future recommendation for the research is that economic methodology can be extended to sample of developing countries.

Vergil, (1999) in his research examined the impacts of real exchange rate unpredictability on the export flows of Turkey to the United States and its three main trading partners. Data is for the period 1990:1-2000:1. The study uses the two measures for measuring exchange rate volatility. The variance of exchange rate around its forecasted movement and standard

¹⁹ Sengupta j.(2002).

²⁰ Roy, Subroto . "path of Pakistan Rupee 1947-1993"

²¹ sbp.org.pk

deviation of percentage change in the real exchange rate. However standard deviation method is used as a surrogate for exchange rate risk. The co- integration procedure is used in order to find out the co-movement among the variables utilized in the model. The augmented dickey-Fuller test is used to determine the order of integration of the individual time series. Akaike information criterion is used to determine the number of lags in the co-integrating equations. The variables include real exports, real foreign activity, bilateral real exchange rate and exchange rate volatility. The results suggest that there is a negative long run relationship between Turkey's real exports and its exchange rate volatility. It is recommended that along with exchange rate policy matters fiscal policy must be paid attention owing to problem of inflation.

Arize *et al*, (2000) examined the impact of real exchange rate volatility on the exports. The quarterly data for 13 LDC's is used from 1973-1996. The methodology is used to test the co integration. To test for the number of co integrating vectors in a non stationary time series TRACE and MAXIMAL EIGEN VALUE statistics are used. Error correction methodology is also used. Variables include volume of country's export goods, world demand, relative price and exchange rate volatility. Trace results showed the presence of one cointegrating vector in each country. So there is a long run relation ship between exports and exchange rate volatility. The coefficient of error correction term is statistically significant and negative showing the presence of equilibrium relation ship among variables in each cointegrating equations. The strength of the study is that empirical results derived here are consistent with the economic theory. It is recommended that fiscal policy must be paid attention while considering exchange rate policy matters in LDC's. LDC's face high inflation rate so exchange rate policy would never be helpful in eradicating exchange rate fluctuation.

Anderton and skudelny, (2001) examined impact of exchange rate volatility on demand for imports and if there is any substitution between extra and intra areas imports due to difference in their exchange rate volatility. The objective of the study is to investigate whether extra-euro area exchange rate volatility has a negative effect on extra areas imports. Their work is based on quarterly data and covers the period 1981Q to 1992Q. In order to get panel estimates the data is pooled. First the study pool data across both the individual euro areas countries and the six import suppliers to the euro areas" the double pool". Second aggregate import data of the euro areas and pool across the six trading partner countries "single pool". The moving average measure of exchange rate volatility is used. It entails current as well as some past volatility and forgets the very distant past. The theoretical model shows various ways by which exchange rate volatility sway demand for imports. The utility function of a firm is used to show the volatility. The model grips different degree of exchange rate instability linked with different import suppliers. Import suppliers include home suppliers, euro area suppliers and non euro area suppliers. The variables include the imports and import price of euro area countries, producer price of euro area country, total final expenditures in constant prices of importers (proxy for demand), extra area exchange rate volatility, intra euro area exchange rate volatility. The results suggest extra area volatility have decreased extra euro area imports about 10percent. A significant negative effect on extra-area bilateral exchange rate volatility on euro area imports is seen. It is recommended to apply the same methodology to other regions of world.

Devereux and lane, (2002) examined that for developing economies external financial liabilities have important effect on the exchange rate volatility. Industrial countries don't face the same situation. Data is over the period 1995:1-2000:9. Nominal exchange rate volatility is measured as the standard deviation of the log first difference of the bilateral exchange rates. The methodology used is ordinary least square. Variables include

exchange rate volatility, set of standard OCA variables, size of domestic financial sector and financial dependence of one country on another. The set of optimal currency area (OCA) variables include trade, cycle (proxy for shocks) and size (proxy for microeconomic benefits of exchange rate stability). The results showed that in developing countries the domestic financial development helps to stabilize exchange rate by adding liquidity to financial market.

Barrell and Hall, (2003) examined the relation ship between exchange rate uncertainty and location of foreign direct investment (FDI) in Europe. The objective of the study is to estimate US foreign investment in the UK and in the continental Europe in a panel of seven manufacturing industries .data is over the period 1982-1998. The generalized method of moments (GMM) developed by Arellano and Bond (1991) is used for estimation of panel. Generalized auto regressive conditional hetroskedasticity (GARCH) measure of exchange rate volatility is used. The variables include FDI, real exchange rate, cost of capital (for which the proxy used is real interest rate), expected profitability and exchange rate volatility. The results showed that exchange rate volatility in the Euro area and in the U.K has strong negative effect on FDI. U.S firms investing in Europe tend to be risk averse and decrease their investment as exchange rate volatility increases. For future it is recommended that this methodology to be extended to sample of developing countries.

Siregar and Pontines, (2005) examined the relation ship between the external debt and exchange rate overshooting. The objective of the paper is to evaluate whether the rapid accumulation of external debts especially around 1995 and 1996 has contributed to the overshooting of the East Asian countries' currencies (rupiah, baht, peso and won). Data is for the period 1990-2004. The methodology used is ARDL and General to specific approach of Henry (1976) to each of ARDL testing where variables with significant coefficients will be included in final regression. The variables include real effective exchange rate, percentage change in the total GDP share of external debt securities, total GDP share of external debt claims on the commercial bank, crisis dummy variable that take the value zero before the major devaluation of local currency in mid to early 1997 and value of 1 for the post devaluation period. The results showed that accumulation of external debts in these economies have partly responsible for exchange rate overshooting of the local currency. For future it is recommended to examine the same connection in other economies.

Aghion *et al*, (2006) examined the link between exchange rate volatility and productivity growth. The basic hypothesis is that exchange rate volatility has a negative impact on the growth of less financially developed countries. Financial shocks are greatly amplified in underdeveloped economies. That is why flexible exchange rate is more suitable for more financially developed countries. Here a panel data analysis for 83 countries is conducted over the year 1960 – 2000. The methodology used is Generalized Methods of Moments (GMM). The variables include output per worker, real exchange rate volatility, financial development, degree of flexibility of exchange rate regime, set of control variables and those include average year of secondary schooling as a proxy for human capital, inflation, government expenditures as a proportion of GDP. Exchange rate flexibility has the impact of dampening the impact of financial shocks. But still it effects negatively on productivity growth in countries that are less sound financially. The results showed that a more rigid exchange rate system is better for financially less developed economies. Productivity growth is affected negatively by exchange rate volatility. Term of trade shocks is largely dependent on nature of exchange rate regime. It is large under a fixed exchange rate regime and close to zero under a floating regime. For future research it is recommended to work with a more articulated structural model that could investigate this trade off in more details.

Benita and Lauterbach, (2007) examined the relationship between daily volatility of exchange rate between US dollar and 43 other currencies. The data used is for over the period 1990-2001. The well known methodology of generalized auto regressive conditional heteroskedasticity (GARCH) is used to study behavior of exchange rate volatility. The factor that may affect exchange rate volatility are central bank interventions which may be either indirect e.g. by adjusting interest rate or direct e.g. foreign exchange trading of domestic currency. Data source is IMF. Exchange rate regimes are classified as pegged, managed and free floating regimes. Variables included within month standard deviation daily devaluation rate of domestic currency against US\$, previous month exchange rate standard deviation, dummy variable for managed exchange rate, dummy variable for free floating exchange rate, dummy for euro block countries, variable that counts the restriction that country imposes for foreign capital flows, expected real interest rate in month, rate of change in country's foreign reserve and within the month standard deviation of daily return on domestic stock market. The results are quite interesting. There is found a positive correlation between exchange rate volatility, real interest rate and central bank intervention. While, when examined a particular country, Israel, the results differ. Here higher exchange rate volatility and greater degree of central bank intervention reduces volatility in exchange rate. The results showed that countries that allow their currencies to float freely experience more volatility. Capital flow restrictions are not effective in reducing volatility. The central bank interventions enhance volatility. The stock market and exchange rate volatility is positively related. The currency crisis is more prevalent in poor countries. These results just tell about the direction of policy variables that are used in analysis and not about their magnitude. For future research it is recommended to focus more about the magnitude of policy variables.

Hnatkovska *et al*, (2008) examined the relationship between exchange rate and interest rate. An increase in interest rate has three effects. The fiscal effects, output effects and money demand effects. The first two effects tend to depreciate the currency while third effect tends to appreciate it. The net effect depends upon the magnitude of the opposing forces. Data for the period 1997-2007 is used. The relationship is studied by estimating VAR in a sample of ten countries, six developing countries and four developed countries. The variables include short term interest rate differential between home and US federal fund rate, nominal exchange rate, industrial production and government fiscal balance. In developed countries exchange rate appreciates in response to increase in interest rate. For developing countries results are opposite in most cases. Thailand is an exception. The sample period can be sub divided into two sub samples and in latter period dollar depreciates as a result of the same innovation and interest rate differential. The results of steady state comparative statics showed that small increase in interest rate appreciates the currency and reduces the rate of currency depreciation while a large increase in interest rate depreciates the currency and increase the rate of currency depreciation. For a moderate increase the exchange rate continue to increase but there is large currency depreciation. For future this methodology can be applied to different samples.

Ogunleye, (2009) examined in his study that exchange rate volatility has deleterious effects on FDI inflows. The objective of the study is to investigate the relationship between exchange rate volatility and FDI in Sub Saharan African countries with particular focus on Nigeria and South Africa. The data is for the span 1970-2005. The methodology used is two stage least square. The exchange rate volatility is obtained by using GARCH model. The variables include FDI inflows to each country, real effective exchange rate, standard deviation of monthly real exchange rate, real exchange rate volatility, demand volatility, real interest rate in host country, infra structure, capital control dummy which takes the value 1 for the period of capital control and zero other wise. The results showed

that causation run both ways. A rise in exchange rate volatility induces reduction in FDI inflows. Large FDI inflows cause a rise in exchange rate volatility. For future it is recommended that FDI- exchange rate volatility linkage be pursued in sectoral context in these countries. A review of all the studies in this chapter indicates that the relationship between trade and exchange rate volatility is ambiguous. Different studies have used different econometric techniques. The most common are the cointegration analysis by Engle and Granger (1987) and Johansen and Juselius (1990). Some studies showed that relationship is positive (De Grauwe) and some studies showed a negative relationship Vergil (1999). Same is the case with exchange rate volatility and debt. In this study an effort has been made to analyze the relationship between variables by using time series data for Pakistan by applying ARDL methodology.

3. Methodology

This part explains the data sources specification of model and methodology used for analysis. The study is aimed to find out the short and long run impact of the exports, foreign direct investment and external debt on exchange rate volatility in Pakistan. Before starting the cointegration test stationarity of each time series is checked because if the regression analysis is done on time series that are not integrated of the same order the results can be spurious. Stationarity means variance and mean of a time series is independent of time. If a series mean and or variance is changing over time this implies that the time series is having a unit root or is non-stationary. It can be made stationary by differencing it. A time series has to be differenced d times to make it stationary then it is called integrated of order d . In this study exchange rate volatility is taken as a dependent variable. There are several ways for volatility measurement. One of the most common measures is the standard deviation. The first step in measuring volatility of exchange rate is to find Real Exchange Rates from nominal exchange rates. The real exchange rate (RER) on monthly basis is calculated as follows.

$$\text{RER} = \text{SP}^* / \text{P}$$

P = Consumer Price Index of Pakistan

P* = Consumer Price Index of USA

S = Nominal Exchange Rate

The monthly data on nominal exchange rates and consumer price indices are obtained from International Financial Statistics by IMF. In the second step the standard deviation of real exchange rates is calculated to estimate volatility of exchange rate. The selection of independent variables is done by review of previous papers. (For example, Larrian , B. *et al* .2002; vergil,1999; Rincon c,1998 etc.). Exports, external debt and foreign direct investment are found most appropriate to be used as explanatory variables. The annual time series data of Pakistan for these variables are collected from previous economic surveys, monthly statistical bulletin of state bank of Pakistan and other national publications.

3.1 Model Specification:

The proposed model would be

$$\ln ERV = f\{\ln(X, FDI, ED)\}$$

The regression form of the model would be

$$\ln ERV_t = \alpha_0 + \alpha_1 \ln X_t + \alpha_2 \ln FDI_t + \alpha_3 \ln ED_t + e_t$$

Where,

ERV_t = Exchange rate volatility. Overshooting (and undershooting) of exchange rate of the domestic currency when the short run exchange rate of a domestic currency depreciates or appreciates against its trading partner's currency at rate that is more or less than the equilibrium exchange rate.

X_t = total exports of goods in million rupee on yearly basis. The expected sign of this variable is negative

²² FDI_t = Foreign direct investment to GDP ratio on yearly basis. The expected sign of this variable is negative.

ED_t = External debt in million rupee on yearly basis. The expected sign of this variable is positive.

e_t = White noise error term

a_0 = Constant

a_1, a_2 and a_3 = elasticities to be estimated

\ln = Natural logarithm

t = 1961-2008 denotes the time period

3.2 Unit Root Test

Before applying ARDL - the bounds testing approach, it is better to check the stationarity status of all the variables. This would give the order of integration of all the variables. This is necessary to ensure that the variables are not I(2). As ARDL approach collapse in presence of I(2) series. The bounds test is based on the assumption that all variables are I(0) or I(1) or mutually co-integrated. So unit Root test is applied to ensure that none of variable is I(2) or beyond. To find the long run relation ship among the variables in the model, Study uses the modern econometric technique bounds testing (or Auto Regressive Distributed Lag (ARDL)) co-integration procedure (Pesaran and shin, 1995, 1998; Pesaran *et al.*, 1996; Pesaran *et al.*, 2001). To find the long and short run relation ship among the variables of interest in the model several techniques has been used. The famous are techniques presented by Engle and Granger (1987) and Johansen and Juselius (1990). But these techniques require that variables should be integrated of the same order. The benefits of using ARDL co-integration procedure over other conventional co-integration procedure is that it does not require the pretesting of variables included in the model for stationarity. It can be applied regardless of stationarity properties of variables involved i.e. whether variables are I(0) or I(1) or mutually co-integrated. The method can be applied to studies that have small samples. It allows estimating the co-integration relationship among the variables by OLS once the lag order of the model is projected. The procedure however collapse in the presence of I(2) series. This approach involves the two stages.

- i. Whether there is or not a long run relation ship among the variables present in the model.

²² As FDI has some negative values so the study used FDI to GDP ratio which has all the positive terms and then Log is applied.

- ii. To estimate the coefficients of long run relations and connected error correction model.

The theory predicts that there is present a relation ship among the variables present in our model represented by eq (1). To find the direction of long run relation ship among the variables following unrestricted error correction regressions are estimated, considering each of the variables in turn as a dependent one.

$$\begin{aligned}
 \Delta \ln \text{ERV}_t &= a_{o\text{ERV}} + \sum_{p=1}^n b_{p\text{ERV}} \Delta \ln \text{ERV}_{t-p} + \sum_{p=0}^n c_{p\text{ERV}} \Delta \ln X_{t-p} \\
 &+ \sum_{p=0}^n d_{p\text{ERV}} \Delta \ln \text{FDI}_{t-p} + \sum_{p=0}^n e_{p\text{ERV}} \Delta \ln \text{ED}_{t-p} \\
 &+ \lambda_{1\text{ERV}} \ln \text{ERV}_{t-1} + \lambda_{2\text{ERV}} \ln X_{t-1} + \lambda_{3\text{ERV}} \ln \text{FDI}_{t-1} \\
 &+ \lambda_{4\text{ERV}} \ln \text{ED}_{t-1} + \varepsilon_{1t}
 \end{aligned} \tag{2(a)}$$

$$\begin{aligned}
 \Delta \ln X_t &= a_{oX} + \sum_{p=1}^n b_{pX} \Delta \ln X_{t-p} + \sum_{p=0}^n c_{pX} \Delta \ln \text{ERV}_{t-p} \\
 &+ \sum_{p=0}^n d_{pX} \Delta \ln \text{FDI}_{t-p} + \sum_{p=0}^n e_{pX} \Delta \ln \text{ED}_{t-p} \\
 &+ \lambda_{1X} \ln \text{ERV}_{t-1} + \lambda_{2X} \ln X_{t-1} + \lambda_{3X} \ln \text{FDI}_{t-1} \\
 &+ \lambda_{4X} \ln \text{ED}_{t-1} + \varepsilon_{2t}
 \end{aligned} \tag{2(b)}$$

$$\begin{aligned}
 \Delta \ln \text{FDI}_t &= a_{o\text{FDI}} + \sum_{p=1}^n b_{p\text{FDI}} \Delta \ln \text{FDI}_{t-p} + \sum_{p=0}^n c_{p\text{FDI}} \Delta \ln \text{ERV}_{t-p} \\
 &+ \sum_{p=0}^n d_{p\text{FDI}} \Delta \ln X_{t-p} + \sum_{p=0}^n e_{p\text{FDI}} \Delta \ln \text{ED}_{t-p} \\
 &+ \lambda_{1\text{FDI}} \ln \text{ERV}_{t-1} + \lambda_{2\text{FDI}} \ln X_{t-1} + \lambda_{3\text{FDI}} \ln \text{FDI}_{t-1} \\
 &+ \lambda_{4\text{FDI}} \ln \text{ED}_{t-1} + \varepsilon_{3t}
 \end{aligned} \tag{2(c)}$$

$$\begin{aligned}
 \Delta \ln \text{ED}_t &= a_{o\text{ED}} + \sum_{p=1}^n b_{p\text{ED}} \Delta \ln \text{ED}_{t-p} + \sum_{p=0}^n c_{p\text{ED}} \Delta \ln \text{ERV}_{t-p} \\
 &+ \sum_{p=0}^n d_{p\text{ED}} \Delta \ln X_{t-p} + \sum_{p=0}^n e_{p\text{ED}} \Delta \ln \text{FDI}_{t-p} \\
 &+ \lambda_{1\text{ED}} \ln \text{ERV}_{t-1} + \lambda_{2\text{ED}} \ln X_{t-1} + \lambda_{3\text{ED}} \ln \text{FDI}_{t-1} \\
 &+ \lambda_{4\text{ED}} \ln \text{ED}_{t-1} + \varepsilon_{4t}
 \end{aligned} \tag{2(d)}$$

As a first step of the ARDL the bounds testing approach the F-test is conducted in order to find the joint significance of the coefficients of the lagged levels of variables included in the model. So the above four equations are estimated by ordinary least square (OLS) in order to find the long run relation ship among the variables included in model by F-test. The null hypothesis of no co-integration among the variables,

For equation 2(a)

$$H_0: \lambda_{1ERV} = \lambda_{2ERV} = \lambda_{3ERV} = \lambda_{4ERV}$$

Against the alternative hypothesis

$$H_1: \lambda_{1ERV} \neq \lambda_{2ERV} \neq \lambda_{3ERV} \neq \lambda_{4ERV}$$

It can also be represented as follow

$$F_{ERV}(ERV / X, FDI, ED)$$

For equation 2(b)

The null hypothesis of no co-integration among the variables

$$H_0: \lambda_{1X} = \lambda_{2X} = \lambda_{3X} = \lambda_{4X}$$

Against the alternative hypothesis

$$H_1: \lambda_{1X} \neq \lambda_{2X} \neq \lambda_{3X} \neq \lambda_{4X}$$

can be denoted as

$$F_X(X \setminus ERV, FDI, ED)$$

For equation 2(c)

The null hypothesis of no co-integration among the variables

$$H_0: \lambda_{1FDI} = \lambda_{2FDI} = \lambda_{3FDI} = \lambda_{4FDI}$$

Against the alternative hypothesis

$$H_1: \lambda_{1FDI} \neq \lambda_{2FDI} \neq \lambda_{3FDI} \neq \lambda_{4FDI}$$

can be denoted as

$$F_{FDI}(FDI \setminus ERV, X, ED)$$

For equation 2(d)

The null hypothesis of no co-integration among the variables

$$H_0: \lambda_{1ED} = \lambda_{2ED} = \lambda_{3ED} = \lambda_{4ED}$$

Against the alternative hypothesis

$$H_1: \lambda_{1ED} \neq \lambda_{2ED} \neq \lambda_{3ED} \neq \lambda_{4ED}$$

can be denoted as

$$F_{ED}(ED \setminus ERV, X, FDI)$$

The calculated F-statistics value is compared with two set of critical values specified by Pesaran *et al* (2001). If the F-statistics is above the upper critical value the null hypothesis of no co-integration among the variables can be rejected. If the F-statistics is below the lower critical value the null hypothesis cannot be rejected. But if F-statistics fall within these two critical values the result is inconclusive. After finding the co-integration (long run relationship) among the variables eq(1) is estimated using the following ARDL (m,n,p,q) model.

$$\begin{aligned} \ln ERV_t = & a_0 + \sum_{p=1}^m a_1 \ln ERV_{t-p} + \sum_{p=0}^n a_2 \ln X_{t-p} \\ & + \sum_{p=0}^q a_3 \ln FDI_{t-p} + \sum_{p=0}^r a_4 \ln ED_{t-p} + w_t \end{aligned} \tag{eq(3)}$$

Before estimating the model the lag length of all the included variables are determined by using Akaike information criterion (AIC) or Schwartz Bayesian criterion (SBC). Maximum two lags are recommended by Pesaran and Shin (1999) for annual data. The lag length which minimizes the SBC or AIC value is selected.

3.3 Short Run Dynamics By ECM:

Short run elasticities can be derived by constructing an error correction model (ECM) of the following form

$$\begin{aligned} \Delta \ln ERV_t = & B_0 + \sum_{p=1}^n B_1 \Delta \ln ERV_{t-p} + \sum_{p=0}^n B_2 \Delta \ln X_{t-p} \\ & + \sum_{p=0}^n B_3 \Delta \ln FDI_{t-p} + \sum_{p=0}^n B_4 \Delta \ln ED_{t-p} + \psi ECM_{t-1} \\ & + \theta_t \end{aligned} \tag{eq(4)}$$

- i. Δ is the first difference operator
- ii. Ψ measures the speed of adjustment reverse to long run equilibrium after short run shock
- iii. B's are the coefficients of the model
- iv. ECM is the error correction term

4. Diagnostic Analysis

4.1 Augmented Dickey-Fuller (ADF) Test for Unit Roots

The study uses augmented Dickey-Fuller test to test the stationarity of variables. The null hypothesis states that there is unit root at some level of confidence. A variable is said to be stationary if ADF statistical value is less than the critical value or in other words we reject the null hypothesis of a unit root. In order to eliminate the auto correlation problem Dickey and Fuller suggested an augmented version of the test. This test includes extra lagged terms. The lag length is most of times determined by Akaike Information Criterion (AIC) or Schwartz Bayesian Criterion (SBC). Following two equations test the stationarity of time series data in this study. One includes intercept and other includes time trend besides intercept.

- i. Model with constant

$$\Delta y_t = a_0 + \gamma y_{t-1} + \sum_{i=1}^p \beta_i \Delta y_{t-1} + e_t$$
- ii. Model with constant and trend

$$\Delta y_t = a_0 + \gamma y_{t-1} + a_2 t + \sum_{i=1}^p \beta_i \Delta y_{t-1} + e_t$$

Table: 4.1 Unit Root Test

Unit Root Tests At Levels		
Variables	Constant	Constant & trend
LERV	-4.263005*	-4.316905*
LX	-0.391455	-2.965698
LFDI	0.195791	-4.092404*
LED	-1.878986	-2.050539
Unit Root Tests At First Difference		
LERV	-9.058626*	-9.004125*
LX	-6.174047*	-6.099634*
LFDI	-4.447266*	-4.507554*
LED	-3.291229*	-3.322752

* Denotes the significance at the 5percent level and rejection of null hypothesis of non stationarity. Critical values obtained are -2.93 and -3.5 for the first and second model respectively. The optimal lag lengths were chosen according to AIC. ERV is level stationary and FDI, ED and EXPORTS are difference stationary. Simple cointegration techniques e.g. as given by Engle and Granger (1987), Engle and Yoo 1987), Phillips and Ouliaris (1990), Stock and Watson (1988), Phillips (1986 and 1987) and Johansen (1988, 1991, 1995) would collapse here. These tests require that economic time series must be integrated of the same order and linear combination of these series must be a stationary variable (I (0)). Because of the presence of both I(0) and I(1) series it become necessary to ARDL approach of cointegration.

4.2 Bounds Test

Table:4.2 F-statistics

Dependent variable	F – statistics	Out come
$F_{ERV}(ERV \setminus X, FDI, ED)$	4.9297	Cointegration
$F_X(\setminus ERV, X, FDI, ED)$	0.61081	No Cointegration
$F_{FDI}(FDI \setminus ERV, X, ED)$	14.9772	Cointegration
$F_{ED}(ED \setminus ERV, FDI, X)$	1.7536	No Cointegration
	Lower Bounds	Upper Bounds
95percent	3.4970	4.7516
90percent	2.8890	3.9931

The equations 2a, 2b, 2c and 2d are estimated to find the long run relation ship. The lag length is selected on the basis of Akaike information criterion (AIC). For the maximum order of lags in the ARDL we chose two because of annual data. F-statistics test the joint null hypothesis. According to null hypothesis of F-statistics the coefficients of lagged level variables are zero. It means there is no long run relation ship among the variables. In the above ARDL-OLS regression each variable is taken as dependent variable one by one and then F-statistics are calculated in each case. In two of the above four cases the out come is cointegration. When normalized on exchange rate volatility and FDI the result is cointegration but when normalized on exports and external debt the result is no cointegration. If The F-statistics obtained are greater than upper bounds critical value then we conclude that cointegration is present. Once we establish that a long run relation ship exists, long run equation will be estimated.

4.3 Estimated Long Run Coefficients using ARDL Approach:

ARDL (1, 0, 0, 0) selected on the basis of AIC.

Table:4.3 Estimated Long Run Coefficient

Regressor	Coefficient	Standard error	t-ratio	Prob
LX	2.0043	.88462	2.2657	.029
LFDI	-0.59608	.37776	-1.5779	.123
LED	-1.4184	.78804	-1.7998	.080
C	-6.6511	3.8206	-1.7409	.090

The long run coefficients are obtained by normalizing on exchange rate volatility and results are presented in table 4.3. Exports have a positive relationship with exchange rate volatility. This is possible if income effect is greater than substitution effect. This concept was given by DE Grauwe in 1988. With increase in volatility, the expected marginal utility of export revenue rises and induces the exporters to export more. 2.0043 is the partial regression coefficient of exports. The results showed that one percent increase or decrease in trade will lead to 2.0043percent increase or decrease in exchange rate volatility with influence of FDI and ED held constant. FDI inflows have a negative relationship with the exchange rate volatility and even significant at 12percent probability. Because the variance of expected profits rise and at the same time the net present value of profits fall with fluctuation in exchange rates coupled with present economic and political situation. So investors would be reluctant while committing resources for FDI. Potential investors will invest in a foreign country as long as the expected returns are high enough to cover for the currency risk.0.59608 is the partial regression coefficient of FDI. ED has a negative relationship with exchange rate volatility. This result is consistent with study of Devereux and Lane (2002) that showed that in developing countries volatility in bilateral exchange rates are negatively effected by external debt. Debt enters with a significantly negative coefficient this suggests that domestic financial development helps to stabilize exchange rate .This may be due to the addition of liquidity to the financial market. So, higher external liability is associated with lower exchange rate volatility. Pakistan is a debtor country. A 1percent appreciation in ED will cause 1.4184percent decrease in exchange rate volatility.

4.4 Error Correction Representation for the Selected ARDL Model:

Table:4.4 Error Correction Representation

Regressor	Coefficient	Standard Error	t-ratio	Prob
dLX	1.1982	.49574	2.4171	.021
dLFDI	-0.35637	.18294	-1.948	.059
dLED	-0.84796	.48719	-1.7405	.090
Ecm(-1)	-0.59785	.14673	-4.0744	.000

Table: 4.4 shows the short run coefficients estimates obtained from the ECM version of ARDL model. The signs of short run dynamic impacts are maintained to the long run. The FDI coefficient is significant at around 5.9percentt probability and has relatively more impact on exchange rate volatility in short run than long run. Exports and FDI have more impact on exchange rate volatility in short run than external debt which is significant at around 9 percent. The ECM coefficient can be viewed as the feed back effect, or the adjustment effect. This shows how much of the disequilibrium is being corrected that is how quickly variables return to equilibrium. In other words the extent to which any

disequilibrium in the previous periods effects any adjustment in the current period. A high significant error correction term is the proof of long run relation ship. It must have a negative sign. The error correction term has highly significant coefficient i.e. -0.59785 with correct sign. This clearly shows a high speed of adjustment to equilibrium after a shock hits to economy. Approximately 59 percent of the disequilibrium from previous year’s shock converges back to long run equilibrium in the current year.

Table: 4.5

R – Squared	.42958
R – Bar – Squared	.36954
SER	.96245
F – Stat	7.1545[.000]
RSS	35.1995
DW – Statistics	1.8187
AIC	-61.7107
SBC	-66.1137

$$ecm = ERV -2.0043*X + .59785*FDI + 1.4184*ED + 6.6511*C$$

4.6 Model Diagnostic Test

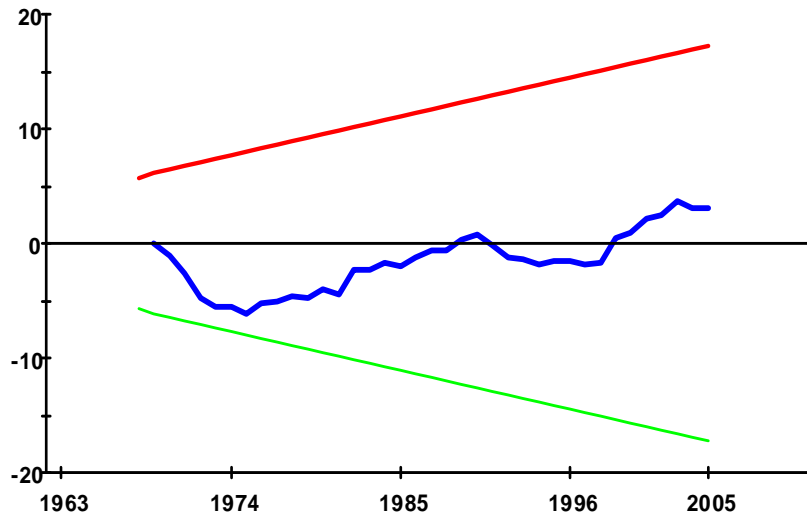
Table: 4.6 Diagnostic Test

Serial co-relation $\chi^2(1)$	1.0156[.314]
Functional Form $\chi^2(1)$.023533[.878]
Normality $\chi^2(2)$	1.2595[.533]
Hetro-Skedesticity $\chi^2(1)$.81971[.365]

- a : Lagrange multiplier test of residual serial correlation
- b : Ramsey's RESET test using the square of the fitted values
- c : Based on a test of skewness and kurtosis of residuals
- d : Based on the regression of squared residuals on squared fitted values

The study applied a number of diagnostic test .there is no evidence of serial correlation and errors are homoskedastic. The RESET test, indicate that model is correctly specified. The model passes Jarque-Bera normality test suggesting that errors are normally distributed. The R² value (0.42958) might seem low but this R² value is statistically significant because the computed F value (7.1545) is highly significant as its p value is zero. The null hypothesis of F-statistics states that all the slope coefficients are zero.R² is less than the Durban Watson statistics so the regression is not spurious. There is found no evidence of positive or negative correlation as the value of Durban Watson statistics is around 2. Borensztein *et al.* (1998) proposed cumulative sum (CUSUM) and cumulative sum square (CUSUMSQ). The tests are applied on the residuals of ECM model. The same tests were used by pesaran and pesaran (1997) to test the stability of long run coefficients. If the plot of CUSUM and CUSUMQ stay with in the critical bounds it would confirm the long run relation ship between the variables and stability of the coefficients. As it is clear from fig that these two plots remain with in the boundary so these two plots also confirm the stability in the coefficients over the sample period.

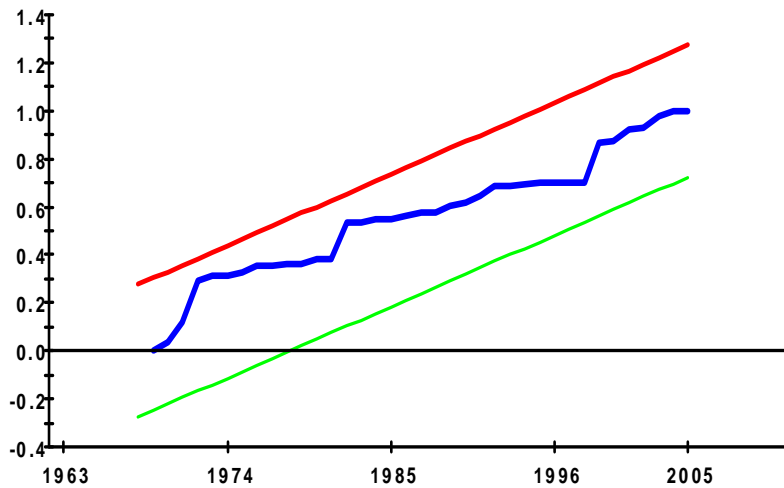
Plot of Cumulative Sum of Recursive Residuals



The straight lines represent critical bounds at 5% significance level

Graph 1

Plot of Cumulative Sum of Squares of Recursive Residuals



The straight lines represent critical bounds at 5% significance level

Graph 2

5. Conclusion

In the last two decades, the liberalization of capital flows and the enormous increase in the scale of cross-border financial transactions have increased exchange rate fluctuation. Currency crises in emerging market economies are special examples of high exchange rate volatility. Volatile exchange rates make international trade and investment decisions more difficult because volatility increases exchange rate risk. Exchange rate risk refers to the potential to lose money because of a change in the exchange rate. There is a correlation between exchange rate volatility, exports, foreign direct investment and external debt. The

review of the theoretical literature on this topic indicates that there is no clear-cut relationship between exchange rate volatility and dependent variables chosen for this study. The ambiguity of the theoretical predictions increases the importance of investigating the issue empirically. Most of Previous time series studies are based on simple Engle and Granger (1987) and johansen and juselius analysis. this is the first ever study in Pakistan that analyses the impact of exports ,FDI, and external debt on the exchange rate volatility in Pakistan by using ARDL methodology.

The paper was motivated by need of an empirical analysis of the impact of exports and FDI and external debt on the exchange rate volatility in Pakistan by using annual time series data from 1961_2006. In this study two tests are used i.e. ADF test in order to find the order of integration of variables utilized in study. Bounds testing approach to cointegration (developed with in an autoregressive distributed lag frame work) to investigate whether there is long run equilibrium relation ship between Exchange Rate Volatility, Exports, External debt and FDI in Pakistan. Error correction model is applied to determine the short run elasticities.

After finding the order of integration our findings suggest that there is found a long run relation ship between the exports, capital inflow and exchange rate volatility in Pakistan. Three important results emerge here from the empirical analysis. One percent increase or decrease in exports will lead to 2.0043percent increase or decrease in exchange rate volatility. The result here is consistent with the findings of De Grauwe (1988).A one percent increase in FDI will lead to approximately 0.6percent decrease in exchange rate volatility. This may be due to the fact that potential investor will invest as long as the expected profits are high enough to cover for the currency risk. A one percent increase in external debt will lead to approximately 1.41percent decrease in exchange rate volatility. Here the results are consistent with the study of Devereux and Lane (2002). They showed that in developing countries volatility in bilateral exchange rates are negatively effected by external debt. This is due to the fact that the external debt adds liquidity to the financial market.

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Review of relationship between Organizational Intelligence and Intellectual Capital

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Abstract

According to researches, intellectual capital and organizational intelligence have much influence on effectiveness and efficiency of organizations and performance of firms, especially in public organization, therefore this study tends to investigate the relationship between intellectual capital and organizational intelligence in East Azerbaijan Documents and realty organization and East Azerbaijan biographic organization of Tabriz in Iran by survey perspective. Albrecht Organizational Intelligence and Bontis intellectual capital questionnaires were applied to collect the data. Pearson correlation coefficient and Enter regression were used to analyze the data. The results illustrated that there is positive significant correlation between the mean scores of intellectual capital and organizational intelligence dimensions namely strategic vision, shared fate, appetite for change, heart, alignment and congruence, knowledge development, performance pressure and total scores of organizational intelligence ($p < 0.01$). The results of Enter regression showed that predictor variables significantly (shared fate, alignment and congruence, development knowledge and performance pressure) have determined 81.8 % of the variance of intellectual capital together. But other variable did not predict the intellectual capital. The results of present study reveal that we should pay specific attention to percept and improve organizational intelligence, new subject, and intellectual capital.

Key words: Organizational intelligence, Intellectual capital, Human capital, Social capital, Organizational capital

1. Introduction

One of roles of present age for management and employee in organization is intelligent. Also, the management and employee try to apply human capital and organizational capital for developed efficiency and effectiveness in their organization. Therefore, these goals will not available unless all of them in organization use intellectual capital as optimum. Most chief executive officers feel that knowledge is the most critical asset of their organization. They believe that their organization's "brain ware", the intellectual capital of their firm, is what gives the said, "if we only knew what we know". In today's movement towards knowledge management, organizations are trying to best leverage their knowledge internally in the organization and externally to their customers and shareholders. They are trying to capitalize on their "organizational intelligence" to maintain in the edge (Liebowitz, 1999). That Organizational IQ has a strong effect on a company's performance. About the different characteristics of Organizational IQ in different countries, Motohashi Kazuyuki conducted a comparison research on the Organizational IQ in high-tech organizations between Japan and the US in 2001 (Haim and Ziegler, 1999).

The different characteristics of Organizational IQ were used to explain the strengths and weaknesses of Japanese Enterprises. Another researcher Massaki Hirano use Organizational IQ frame work to analyze and compare Japanese and the US product development organizations, their research propositions suggested key difference between both countries. Research aim is studding the relationship between OI and Intellectual Capital in two valid non-profit organizations in east Azerbaijan that first organization's name is East Azerbaijan document and realty and second organization's name is East Azerbaijan biographic organization.

2. Literature Review

Intellectual capital: Although increasing in importance of the societies, IC is a complex concept and therefore difficult to define. This is evident in the number of different definitions existing in the literature (Sujan and Abeysekera, 2007) ranging from a subset of intangible capital (Hunter et al., 2005), the difference between the market value and the book value of a firm (Ordonez de Pablos, 2005) and knowledge based resources that contribute to the creation of a competitive advantage for the firm (Ordonez de Pablos, 2005). For this study, IC is defined to include all the knowledge-based intangible processes and assets which are not normally shown on the balance sheet, and can be leveraged to give rise to future value (Roos et al., 1997). Perhaps an easier way to describe IC is by its components. A tripartite framework used in many of the prior ICD studies (Petty and Cuganesan, 2005) is that originally suggested by Sveiby (1997) and consisting of internal (structural) capital, external (relational/customer) capital, and human capital (employee competence). Internal capital refers to "the knowledge embedded in organizational structures and processes" (Petty and Cuganesan, 2005) and consists of two main elements, intellectual property (e.g. copyrights, patents, and trademarks) and infrastructure assets (values, systems and processes used in day-to-day activities). On the other hand external capital category consists of the relationships a firm has with outside stakeholders (Petty and Cuganesan, 2005) such as customers and suppliers, and incorporates relationship methods such as brands, reputation and business collaborations. Finally human capital refers to "the skills/competences, training and education, and experience and value characteristics of an organization's workforce" (Petty and Cuganesan, 2005). Human capital builds the internal structure, and these two categories of capital are mutually reinforcing within an organization (Edvinsson and Malone, 1997).

Earlier researches were in the main descriptive, detailing the level of internal, external and human capital voluntary disclosure exhibited in the annual reports of individual countries (Guthrie and Petty, 2000, Brennan, 2001, Goh and Lim, 2004; Abeysekera and Guthrie, 2005) and in general the findings indicated that the levels of voluntary IC disclosure are low worldwide. In addition, despite differing firm selection criteria and measurement unit in the content analysis, the studies consistently showed that external structure capital was the most frequently reported IC category, usually followed by internal structure capital, with human capital the least frequent (Whiting and Miller, 2008). The OECD (1999) defines intellectual capital as 'the economic value of two categories of intangible assets of a company' – organizational and human capital. Wright et al (2001) argue that intellectual capital is a factor that includes human capital, social capital and organizational capital. For Nahapiet and Ghoshal (1998), intellectual capital refers to the knowledge and knowing capability of a social collectivity, such as an organization, intellectual community, or professional practice. There is a lack of clarity surrounding these and related terms, with numerous definitions abounding. In one study, Gratton and Ghoshal (2003) argue that

intellectual capital is part of human capital, that is, human capital subsumes intellectual capital, and also includes within it social capital and emotional capital. For most commentators, however (e.g. Kaplan and Norton 1993, Harvey and Lusch 1999, Stewart, 1997, Sveiby 1997) intellectual capital has a broad sweep and includes human capital as one of its key dimensions.

2.1 Human capital

The prevailing definition of organizational human capital adopts a competence perspective (Elias and Scarbrough, 2004). Flamholtz and Lacey (1981) emphasized employee skills in their theory of human capital. Later researchers expanded this notion of human capital to include the knowledge, skills and capabilities of employees that create performance differentials for organizations (Nahapiet and Ghoshal, 1998)

2.2 Social capital

According to Nahapiet and Ghoshal (1998), the central proposition of social capital theory is that networks of relationships constitute a valuable resource for the conduct of social affairs. Much of this capital is embedded within networks of mutual acquaintance.

2.3 Organizational capital

The principal role of organizational capital is to link the resources of the organization together into process that creates value for customers and sustainable competitive advantage for the firm (Dess and Picken 1999).

Bontis (2001) was said that there are three elements that are proposed as encompassing intellectual capital, as follow: Human Capital, Structural Capital and Customer Capital. Human capital can be describing as the firm's collective capability to extract the best solutions from the knowledge of its individuals. Structural capital can be thought of as the firm's organizational capability to meet market requirements. Finally, Customer capital refers to the end-user's satisfaction and loyalty to the organization.

2.4 Organizational Intelligence (OI)

The concept of Organizational IQ (Organizational Intelligence Quotient) was first developed by Haim Mendelson and other researches, which conducted a questionnaire survey of firms in Silicon Valley and used the results to analyze the relationship between organizational IQ and Firm Performance. (Haim,1999). Organizational IQ is a quantitative measure of an organization's effectiveness in information distribution, decision making and execution (Synesis, 2001). Organizational Intelligence is the capacity of an enterprise to mobilize all of its available brain power, and to focus that brain power on achieving its mission (Albrecht, 2002). Various definitions have been applied to "organizational intelligence". Some of these definitions include:

Wilensky was said that the problem of gathering, processing, interpreting and communicating the technical and political information needed in the decision making process. Haeckel and Nonal argue that the organization's ability to deal with complexity, that is, its ability to capture, share, and extract meaning from marketplace signals. McMaster (1995) was talked that capacity for computation which can be applied to information that is externally gained or internally generated to meet survival challenges (Liebowitz, 1999).

Information processing functions that permit adaptation to environmental demands are related to innovation, initiation and implementation (Glynn, 1996).The intelligent behavior of organizations as a function of their design (Nonaka, 1994). Building a sharing culture is a necessary element for organizational learning and organizational intelligence (Liebowitz,

1999). Organizational intelligence has become a popular topic recently in business and academia and attracts many researchers and practitioners from different fields. Because of many studies in such different disciplines and perspectives, the interpretation of organizational intelligence shows a discrepancy, resulting in disorder in the organizational literature (Dayan, 2006). Organizational intelligence is a measure of a firm's capabilities to assimilate, manage and use information in order to make effective decisions (Haim and Ziegler, 1999). Individual and organizational intelligences are conceptualized as being functionally similar. Organizational intelligence, however, is a social outcome and is related to individual intelligence by mechanisms of aggregation, cross-level transference and distribution (Glynn Mary Ann, 1996).

Albrecht Designed a Modal That Includes Seven Key Dimensions of OI

- i. Strategic Vision: strategic vision refers to the capacity to create evolve, and express the purpose of the enterprise and not to any particular vision, strategy, or mission concept in and of itself.
- ii. Shared Fate: a sense is as "We're all in the same boat" creates a powerful sense of community and esprit de corps. Without a sense of shared fate, the psychological tone of the culture degenerates into a "Look out for number one" spirit.
- iii. Appetite for Change: Some organizational cultures, usually led by their executive teams, have become so firmly set in their ways of operating, thinking, and reacting to the environment that change represents a form of psychological discomfort or even distress.
- iv. Heart: Separate from the element of shared fate, the element of heart involves the willingness to give more than the standard.
- v. Alignment and Congruence: In the intelligent organization the system, broadly defined, all come together to enable the people to achieve the mission (Albrecht, 2003).
- vi. Knowledge Deployment: Knowledge deployment deals with the capacity of the culture to make use of its valuable intellectual and informational resources.
- vii. Performance Pressure: It's not enough for executives and managers to be preoccupied with the performance of the enterprise, i.e. its achievement of identified strategic objectives and tactical outcomes. In the intelligent organization, everyone owns the performance proposition, i.e. the sense of what has to be achieved and the belief in the validity of its aims (Albrecht, 2003). These seven dimensions or indicators of OI are portrayed in Figure (1).

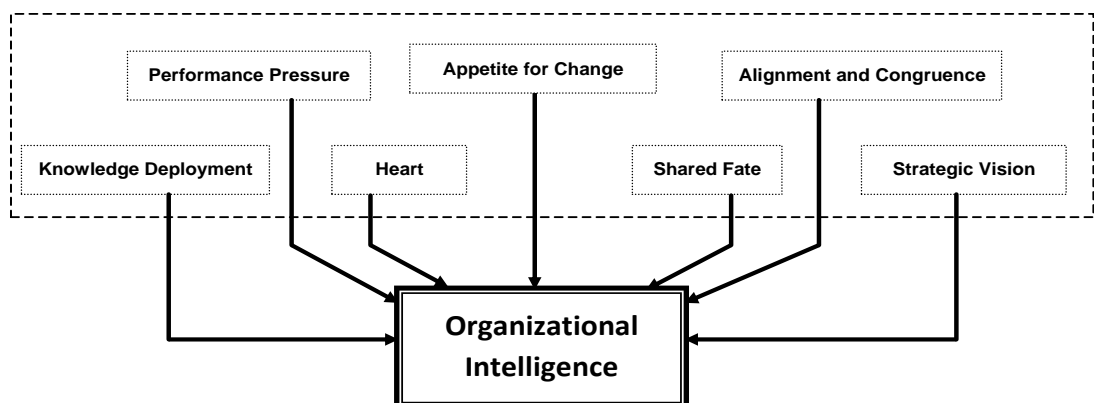


Figure.1: Dimensions of Organizational Intelligence (Albrecht, 2002)

Gardner was divided organizational intelligence to two dimensions that consist of: 1) human intelligence and 2) artificial intelligence. In this division, the human intelligence was combined from eight factors, as follow: 1) Logical intelligence 2) Social intelligence 3) Allocated intelligence 4) Mechanical intelligence 5) Emotional intelligence 6) Musical intelligence 7) Oral intelligence 8) Physical intelligence.

Zangouinezhad and Moshabaki (2009) were studied about the role of structure capital on intelligence. This study aims to explore the role of structural-organizational capital (or intelligence) in gathering, producing and transmitting competitive intelligence (CI) to enhance organization competitive advantage. The findings indicate that the information systems (as the structural capital) and the content factors (as the organizational capital) of the structural-organizational intelligence (SOI) are significantly related in attaining CI. The study also provides empirical evidence that attaining CI is positively related to organization competitive advantage. Bramhandkar, Arikson and Applebee (2007) were studied about relationship between Intellectual capital and organizational performance in pharmacy industry. They were reasoned that there are significant relationship between intelligence and performance at their study's place. Kong (2007) was studied in non-profit branches in the name of The Strategic importance of intellectual capital in the non-profit sector. The result of this study was showed that decision making and determine strategy need to use intellectual capital. Because without intelligence, to select right strategy impossible. Carson, Ranzijn, winefield and Marsden (2004) were studied about Intellectual capital: mapping employee and work group attributes. This study aims to extend the understanding of human and structural capital as key components of intellectual capital by refining their definitions and outlining their relationships. It argues that psychology and sociology can further develop the understanding of intellectual capital despite having not previously been sufficiently recognized as relevant to the debate. The paper draws on these disciplinary areas to develop a model that specifies subsets of human and structural capital, of intellectual capital and the relationship between them, as a basis for a more comprehensive definition and effective measurement of it across a range of industries and firms. Finally, it argues that it is important for employers to determine how to capture human capital and convert it into structural capital so that it is not lost in times of rapid restructuring and high staff turnover. Ordonez (2003) was studied about Intellectual capital reporting in Spain: a comparative view. The result of this study was illustrated that there are three main parts to this paper. First, the growing importance of organizational knowledge-based resources is addressed. Second, a concise review of the most significant on intellectual capital is summarized. Third, an image is shown of what Spanish firms are doing in terms of knowledge management and intellectual capital measuring and reporting. This situation is compared with intellectual capital reports of firms from Asia, the Middle East and other European countries. Abdel Aziz, Jawad and Bontis (2010) were studied about Human resource development, social capital and emotional intelligence: Any link to productivity. The literature review provides evidence that it is logical to assume that the relationship among Human capital, emotional and organization productivity is highly integrated. This finding influenced the authors to conceptualize an integrated model that illustrates the interconnectivity of HRD, social capital, emotional intelligence and organizational productivity with internal and external environmental factors.

3. Research Questions

- i. Is there any significant correlation between dimensions of organizational intelligence and intellectual capital?
- ii. What is regression equation of Intellectual capital on dimensions of organizational intelligence?

4. Research Methodology

4.1 Sample

This study is survey research. The sample size of the present study consist 49 women and 92 men that were selected at random from East Azerbaijan Documents and realty organization and East Azerbaijan biographic organization of Tabriz in Iran.

4.2 Tools Used

Organizational intelligence questionnaire was designed by Albrecht (2002). It contains 49 items and it has 7 dimensions namely: Strategic vision, Shared Fate, Appetite for Change, Heart, Alignment and Congruence, knowledge Deployment and Performance Pressure. Its reliability of this questionnaire was reported 0.953.

Intellectual capital was assessed by Bontis IC Questionnaire that was published with 43 items in 2001 to measure intellectual capital in organization. Its reliability was reported 0.916. Both of them are in 5 point Likert-type scale ranging from "I strongly disagree" to "I strongly agree". Data analysis was carried out by using the statistical program packages SPSS.

5. Results

Table.1 Pearson Correlation between Intellectual capital and Organizational Intelligence with Sub-scales (n=141)

Variable	Strategic Vision	Shared Fate	Appetite for Change	Heart	Alignment and Congruence	Knowledge Development	Performance Pressure	Total OI
Intellectual capital	.835**	.819**	.790**	.682**	.708**	.566**	.582**	.684**

** Correlation is significant at the 0.01 level (2-tailed).

The results of table.1 show that there is positive significant correlation between the mean scores of intellectual capital and organizational intelligence dimensions namely strategic vision, shared fate, appetite for change, heart, alignment and congruence, knowledge development, performance pressure and total scores of organizational intelligence (p<0.01).

Table 2: Model Summary of the Regression of Intellectual capital on Organizational Intelligence and its Dimensions

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.904 ^a	0.818	0.808	9.749

a. Predictors: (Constant), performance pressure, shared fate, appetite for change, development knowledge, strategic vision, alignment and congruence and heart.

As seen the significant predictors (shared fate, alignment and congruence, development knowledge and performance pressure) have determined 81.8% of the variance of Intellectual capital together.

Table 3: Regression Analysis to Predict Intellectual capital on Organizational Intelligence and its Dimensions

Predictor Variable	B	Std. Error	Beta	T	Sig.
(Constant)	32.855	4.856	-	6.766	.000
Strategic vision	.122	.340	.025	.358	.721
Shared fate	.897	.203	.249	4.417	.000
Appetite for change	.226	.295	.052	.764	.446
Heart	-.101	.365	-.023	-.278	.782
Alignment and congruence	-.834	.326	-.183	-2.558	.012
Knowledge deployment	2.152	.348	.462	6.178	.000
Performance pressure	1.992	.238	.492	8.365	.000

As seen, at first step performance pressure has satisfied the entrance criterion of the regression as a very important predictor (Beta=0.492). At second step development knowledge has satisfied the entrance criterion predictor (Beta= 0.462). As seen, at third step shared fate has satisfied the entrance criterion of the regression as a very important predictor (Beta=0.249). At fourth step alignment and congruence has satisfied the entrance criterion predictor (Beta= -0.183). But other dimensions of organizational intelligence namely strategic vision, appetite for change and heart could not satisfy the entrance criterion of the regression, then regression equation of the regression of intellectual capital on organizational intelligence and its dimensions is as follow: intellectual capital= 0.492 (performance pressure) + 0.462 (development knowledge) + 0.249 (organizational intelligence) + (-0.183) (alignment and congruence).

6. Conclusion

In the present age, one of the most important tools that organizations need to success in this competitive environment is intelligence and how to use from organization's intellectual capital. This success is achieved when we know, which force circumstance have in organization. Also, we should know what the proper way to used from forces available to profit organization. This is impossible unless, be used knowledge of organization. The knowledge can be capable that usage the intelligence. A lot of experts of organization were believed that intelligence is essential factor of organization to achieve to missions of organization. According to Gardner's view, organizational intelligence is divided into human intelligence and artificial intelligence. Also he was believed that there are more than a dozen intelligence in organization, as, emotional intelligence, physical intelligence, social intelligence and etc. that all of them are known as intellectual capital. And organization when can use from this capital that can be evaluation the rate of organizational intelligence.

The obtained results of our study, and also other investigators revealed that there is positive correlation between organizational intelligence and intellectual capital. Because of by increasing of organizational intelligence, the intellectual capital would increase vice versa if the amount of organizational intelligence decreases, intellectual capital would decrease. The findings of present study are in conformity with researches of Zangouinezhad and Moshabaki (2009), Arikson and Applebee (2007), Kong (2007), Carson, Ranzijn, winefield and Marsden (2004), Ordonez (2003), Abdel Aziz and Jawad and Bontis (2010). An Important work of organizations should be to invest in intelligence personnel, so do the organizational operations efficiency and effective than they were before. In general it is inferred that intelligence is an undeniable factor for organization's intellectual capital, because the first condition to each organization to be success is having intelligence.

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Design Liability towards Building Maintenance at Post Occupational Stage

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Abstract

Maintenance is a procedure that consists of functions responsible to keep the building or object in working condition. Conventionally this procedure used to be executed only after the evaluation of the building condition. However, in contemporary time building maintenance often become the part of the designer's proposal and its presence could be felt throughout the life of building. Despite the technological advancement, the prevention of building from unplanned maintenance is still a riddle. This study considers that building suffers from the various issues of maintenance caused from decisions of their designer. It is a generally observed that present day buildings are more vulnerable to maintenance as compare to older counter parts. The study has assessed the responsibility of various design factors those instigate the issues of maintenance in building. The study has been conceded through systematic development in order to develop better understanding of the subject matter. Therefore, dividing the paper it into two parts, i.e. Part-1 Introduction of field and developing understanding for formulated definitions and standards, Part-2 Assessing the design factors responsible for causing maintenance and finally reaches at the conclusion. Eventually this research has implied the natural eco system as metaphor to investigate the architectural design balance and established the model of *design balance* system.

Keywords: Design Faults, Building Maintenance, Design Implications.

1. INTRODUCTION TO FIELD AND DEVELOPING UNDERSTANDING FOR FORMULATED DEFINITIONS

1.1 Introduction

Liability of design towards building maintenance has remained neglected part in the field of research, modern society and especially in underdeveloped nations. Designer usually does not realize that what mistakes or bad decision have been taken during a design process and these are only revealed through post occupational survey or users feed back. Those decisions are mostly emerged in a form of certain types of building defects (unplanned maintenance) and unfortunately such unforeseen conditions get to impart with daily life of building as shown in Picture 1,2 and 3

Around the globe various studies have been carried out over subject matter of this article and addressed the design problem in their respective region and domain. Precedent studies have developed a reliable link between the Design and Maintenance issues. According to Ramly (2006), design plays a major role in determining the conditions of the building after completion, mainly in aspects of defects and maintenance. Indirectly design influences the performance and physical characteristic of building and its durability to with stand against the environmental conditions, social interfaces such as graffiti and vandalism. The study further stressed that the link between design and maintenance should not only be seen from the point of increasing the repair work or cost involve, but it also needs to be consider about the impact of design on structure and material installed, at whilst the life cycle of each component of building should also be probed.

In near past it was considered that only old buildings are subject to maintenance because of material decay, weathering, etc. but in contemporary time, thanks to designers, developers and construction teams, the concept has totally changed. Now even newly built structures are subject to intensive maintenance and sometimes require revised design and rework. A deficient design is not only concerned with designer of building but also concerned with the construction team, for example structure failure of Charles de Galle airport in France. Study of Foo (1989) highlights the issue of faulty design as, in recent years many defects, premature maintenances and failure are occurring in relative new buildings. This situation has resulted in users concern, and it reached at a point that user's confidence in both professionals and construction sectors are undermined. Perhaps it would be justified to declare that even new and modern designs of the building could get tainted with plague of unplanned maintenance, if their respective designs would have not been considered skillfully in terms of maintenance, stability and life cycle.

Study of Zavadskas et.al. (1998) have presented the correlation between design of building and its life cycle. A better building life is only accessible with adept consideration at design stage which should be an important issue to its owner and dedicated designer. Normally the design process begins when the client presents the set of a requirement to designer and specifies the limitation. Zavadskas et.al suggests that, at this stage maintenance strategy and objectives should be considered and means should be determined to allow the building to enjoy a longer life cycle. And if the decision regarding the maintenance issue and their means are considered well before the construction phase, it will prevent the building to fall in the pool of bad design and this timely decision helps to enhance the life cycle of building.

Account of above revealed that proportion of the post occupational defects and resulting maintenance is highly controlled or governed by the quality of design. In fact, these two factors of building are inversely proportional to each other, i.e. higher the quality of design lower the maintenance and lower the quality of design higher the maintenance. Precedent studies suggest that it is high time to ponder the design and construction processes at

various stages, i.e. from 2D drawings to application of outer fabric and skin to façade. Such measures will not only prevent the building from highly taxed maintenance but also multiply the life span of buildings.

1.2 Research Methodology

In order to accomplish the research aim, i.e. to enumerate the various defect and maintenance causing design factors, the methodology of this study is principally based on the secondary data collection source. Therefore, intense literature review and case studies have been referred in the context of building design defects, construction defects and maintenance. The study has been categorized into simple understanding of basic definition of field to intricate causes of design faults and maintenance.

1.3 Research Limitations

The subject matter of this studies is to primarily emphasis on the identification of maintenance causing defects in buildings, therefore, has been be carry out under the following parameters.

- i. Design defects
- ii. Defects of construction phase,
- iii. Building materials selection/properties and
- iv. Communication in design development process

1.4 Definitions

There are numerous definitions of what represent a defect. Perhaps the simplest and most comprehensive definition is that provided by the online Oxford Dictionary (2010), which defines defect or faults as, a shortcoming or falling short in the performance of a building element.

According to Chartered Institute of Buildings, CIOB (1982) as, the design stage that the maintenance burden can be positively influenced for better or for worse. Hence it could be concluded as that skillful design can reduce the amount of maintenance work at post occupational stage. The proportion of the building defects and maintenance is highly controlled/governed by the quality of design, in fact these two characters of building are inversely proportional to each other, i.e. higher the quality of design lower the maintenance and lower the quality of design higher the maintenance.

There is an important definition of design and maintenance published by Royal Institute of Chartered Surveyors RICS. According to RICS (1990), the designed and maintenance process in the construction industry needed to be more closely allied as in the motor industry where design and subsequent maintenance frequently have an equal consideration. Perhaps RICS has advised the building design trade professionals to refer the example of mortar industry where high tech car designs are conceived parallel to ambiguities of its maintenance. Conceptual model as shown in Figure 1 demonstrate the graphical comparison between similarities of both motor and building design industry. Machines making industry always considers the design of their products based on its performance and its maintenance

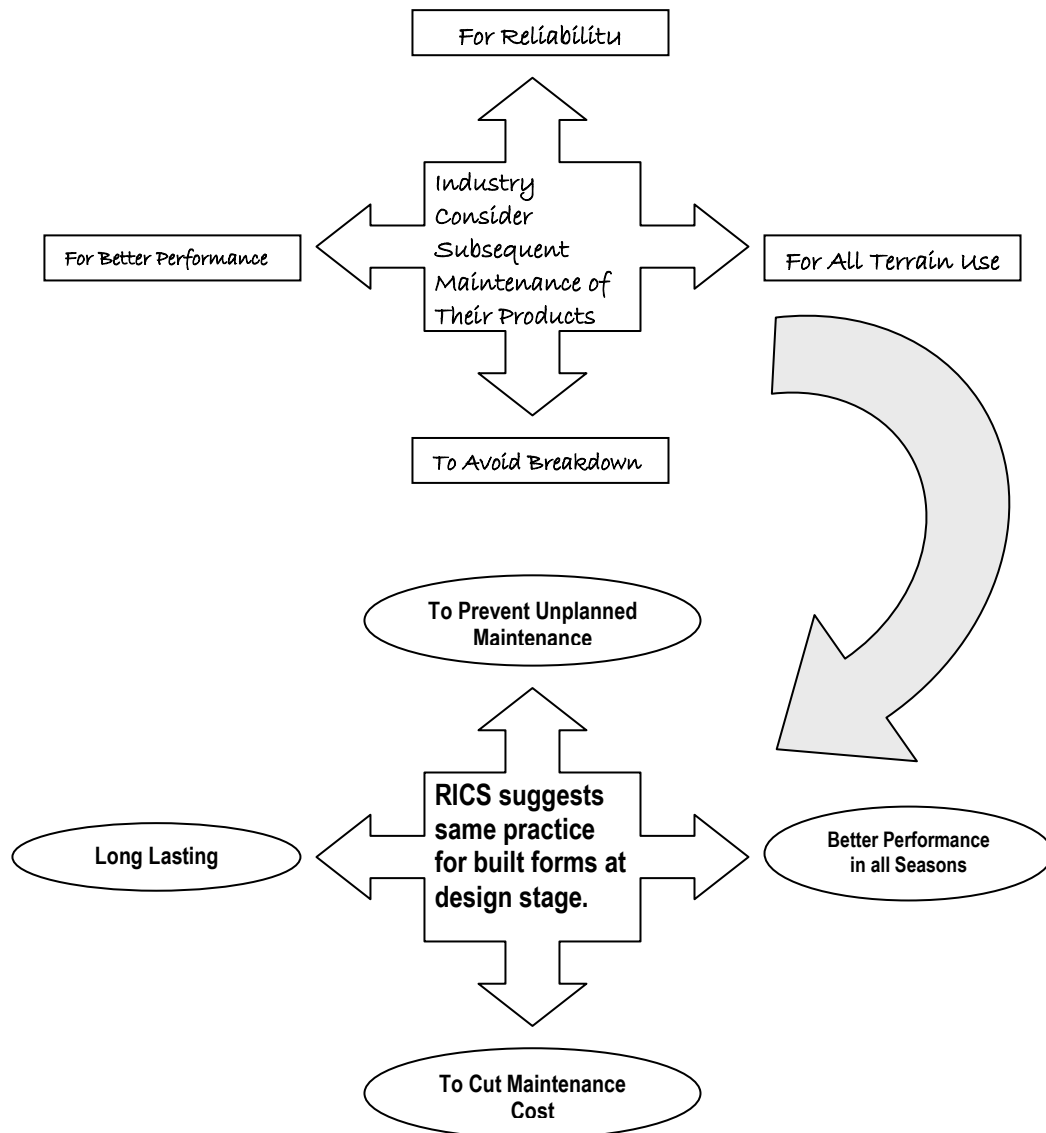


Figure 1: Conceptual Model of RICS Definition for Design & Maintenance

In order to prevent unplanned maintenance at post occupational stage of building, review of machine design could help the building designers to control the unplanned maintenance at post occupational stage. Since the machines are usually provided with manuals of planned and emergency maintenance. Therefore, similar practice in building industry can be introduced by providing manual of built forms, for example manual of independent house, apartment, condominium etc. The manuals of built form may contain the details of materials used, brands, replacement products, schedule of planned maintenance and emergency checklist, etc. This practice can reduce the gap between the maintenance and design.

The definition RICS suggests that design and construction industry should work more closely to work out the successful model of industry. Induction of similar trend in building industry would develop the atmosphere of the healthy competition. And may be a later stage the building industry comes up with some famous brands and their products similar to the auto industry. Whereas Atkinson (1998) has defined the importance of design

development stage and mentions that the most faults that occur in construction result from design errors and omissions or carelessness, negligence as well as lack of knowledge.

The term of design in the context of building appraisal and maintenance is defined by Olubodun (1999) as; the design is concerned not only with building or housing morphology but also with specification and construction methods. These views of the Olubodun emphasize that design of any built form should not be furnished only as a perception of designer, but it should also be correlated with specifications and construction as well, whereas, the absence of such factors could result in maintenance in building at post occupational stage. At whilst, Levy and Salvadori (2000) defines that, the human body is the better metaphor for building design judgment. Perhaps the study of Levy and Salvadori assert that, human body is perfect design and a well designed building is like healthy human body, which always has very fewer chances of breakdown.

The account of above definition could be summarised as that design of building should ensure that, the building at post occupational stage will require only planned maintenance. And during its span of expected life, and it would not fall in pool maintenance caused by design fault. Whereas the term maintenance involves a consistency in keeping property in good condition, encompasses repair and returning the object to working order. Maintenance of the built environment is the exercise of technological knowledge in a commitment to the continued life and use of building; it keeps building alive and healthy.

2. REVIEW OF DESIGN FACTORS LIABLE FOR CAUSING MAINTENANCE

“Doctors bury their mistakes, architects cover them by ivy, engineers write long reports, which never see the light of day”. (Anonyms) quoted by Feld, J. (1968)

This quotation is supporting the importance of this section of research since this part is also responsible to uncover the mistakes made or emerged by design activities of building professionals. The building design practice is consisted of seventeen professions ranging from the architect to public work engineer through to interior designers. It is therefore, added that design process is the hub of all good and faults driven from it. Recognizing the importance of this hub Atkinson (1998), mentions that, most of the faults that occur in construction results from design errors and omissions or carelessness.

Kaplan (1992) suggests that, the building defects result from the procedural inadequacy and consequently, are caused by human error. The human error is likely to occur in all professional fields. In the light of the mentioned verdict, it is factual to mention that presence of human error cannot be denied from any stage of building design i.e. from the drawing board to the final touches towards delivering possession of building.

Refereeing the results of a case study Seeley, (1987) mention that, one third of the maintenance cost of building can be saved if proper care has been taken at design and construction stage. Unplanned maintenance is considered as the tax on building, and it could be explained as the poor design of cars whose operational hours are always coupled with some type of repair either mechanical or body works. One can imagine the amount of trouble and burden on user of that car. However, a poor design of building could cost the user to carry even more monetary lumber and stress than the burden of that car since the house remain in use for around the clock.

The Building Research Establishment (BRE, 1998) has conducted several surveys on housing stocks and work out the factors responsible for maintenance in housing. The glossary of BRE study is given as under.

Table 2.1 HOUSING MAINTENANCE FACTORS, BRE

S.No	Factors of Housing Maintenance	S.No	Factors of Housing Maintenance
1	External walls	13	Cracking
2	Internal walls	14	Condensation
3	Partition Walls	15	Rising Dampness
4	Cavity walls	16	Detachment
5	Separation walls	17	Entrapped water
6	Junction with cavity walls	18	Rain Penetration
7	Junction with walls	19	Dampness
8	Floors & Ceilings	20	Building Regulations
9	Windows & Doors	21	BS Codes & Practice
10	Safety & Habitability	22	Design & Specifications
11	Thermal Insulation	23	Execution
12	Weather tightness & Rising Dampness	24	Materials of Components

Source: BRE (1998)

The study of BRE (1998) has found that 24 factors as major cause of maintenance in housing stock of England, as listed in Table 2.1. The occurrence of these factors is related with several reasons ranging from faulty design, poor workmanship, improper material selection, lack of supervision, non adoption of building codes and standards, and execution of civil works at the site.

Ghasson (2003) conducted a study in high rise flats of Newtown, Birmingham, England and revealed various implicating factors of housing design and maintenance in high rise residential apartments. Results of the study show that many technical and environmental problems are associated with those buildings. Factors like excessive use of concrete, poor workmanship, use of substandard quality of materials, lack of construction detailing were articulated as design faults in these high rise residential flats. Conceivably, the studies consider that design and construction faults during the design development and construction process are major reason for high rate of maintenance in residential apartments.

The availability of the right and appropriate material is very important to consider at design stage, in order to avoid the maintenance at post occupational stage. However, sometimes limited choice of material left no room for designer except to suggest the material that was already proven for weakness Addleson (1996). The study suggests that this situation arises when the designer deliberately opt for wrong or improper material, since designer don't have any alternate material to use and the results are well predicted on early stage of design. Thus it can be mention that factors such as Non Availability or No Alternate of material are also among the causes of the faulty design at post occupational stage.

Flow of communication among various stacks holders is important during design development and construction phase. The defects in finished building which are manifested to various degrees of damage from irritating to the disastrous maintenance are seemed to be the result of failure to communicate within the design and construction process. Therefore, it seems that the problem caused in modern building is also related with deficiencies in managing communications in the design process (Cornik, 1991).

Communication gap among the building trade professionals also causes faults in design. This idea is pronounced by the Gray and Hughes (2002) as, the understanding is missing

link in the design process and there is the deficiency in the way information flows between the people. Account of above studies suggests that communication gap among building professionals and users also causes faults in design. The responsibility of designer has increased many folds since his traditional role as the project leader has been upgraded to the leader of the design team. This includes all the works related with different stages of building development until its completion. And by default the principle designer should act as hub for various professional people involved in building design and construction. Gray and Hughes conceivably assert that designer or architect should act as the communication and coordinating hub for all activities of building design personals. Therefore, efficiency of that hub is heavily relied on the proper communication and developing understanding between all the group of building trade professional and client as well. However, if that hub fails to work accordingly that may cause multiple faults among the work of professionals engage in the design process.

The feed back from the end user is very important for better design because the user can provide the first hand information of high claims of the designer. Propagation of such ideas also held the attention of Gray, and Hughes (2002) describes that, user oriented and research based design is the knowledge upon which a better future can be built. This statement of Gray also advocates that the user's participation can prevent the faults in design leading to maintenance, or in other words, we can say that user's non participation can cause design faults. The end-user is the obvious target of all experiments made in the laboratory of designer during a design process. End user would be lucky if experiments present good results or otherwise the space which is supposed to act as a protective and peaceful enclosure for user would act as a business arena for maintenance contractor and personnel. The feedback from the end user is very important to better design because an user can only provide the first hand information about high claims of the designer. Designers can improve their design and learn from precedent experiences through users feed back.

The account of above discussion could be summarised as, that designer creates the building after contemplation the design through the several stages and construction team turns that 2D dream into reality. However, the stage of construction is also very important for building to perform according to the ideology of its creator (designer). Thus a construction phase can be considered as the link between the design and occupational stage of building, higher the quality of a link most the chances for maintenance free building. It is further added that design excellence and ultimately a better performance of building can be achieved only through quality of construction phase. Construction phase is governed by the various factors like management of the construction, materials knowledge and application and time factors. However, these factors could also act as source or cause of the design faults and maintenance if not managed skillfully during construction phase.

Highlighting the importance of construction phase Ambrose (1992) briefs that, understanding of the construction management is necessary for intelligent design work. Regarding alternate materials Ambrose mentions that, certain details are not feasible to achieve with a particular material or system. The study stresses that designer should accept the facts and provides some alternates to accomplish the design. Ambrose considers management of the available time period as the important factor for good design and states that, the time is important; design work is always done within some time constraints. Conceivably, the study notifies the reader that designer should carefully

distribute/schedule the time for each stage of design to avoid the faults in design, which could occur in case of time shortage.

The study of Peacock (1986) has identified following design factors, failure of which causes maintenance in buildings.

- i. Unsatisfactory detailing
- ii. Incorrect selection of building materials, components and systems
- iii. Lack of standardization
- iv. Failure to appreciate how the structure is used and maintain.

The study of Peacock considers that these factors cause costly unplanned maintenance in building. The study suggests to designers that they could avoid the maintenance and its high cost in buildings if they would improve their design strategies in the context of these factors.

Considering a poor detailing as a cause of multiple faults in building Gilder (1989) mention that, poor detailing that makes incorrect assembly on the site or in the factory impractical to consider it a workmanship fault. The study of Gilder stressing the need to understand the construction phase which is the second most important phase after design phase, towards achieving good design of building. There are number of factors present in this phase, which implicates the maintenance. In fact, the workmanship and detail drawings are two interrelated factors of this phase. However, faults emerged from the lacking or deficient detail drawings are often mistakenly recognized as faults cause by the workmanship.

Highlighting the relation of construction methods and defects Cook (1992) states that, the real significance for the occurrence of a defect is the de-Skilling caused by the departure from traditional methods of construction. Here Cook is indicating two factors causing defects in building. One is non availability of skill personnel and second is switching to new modes of construction. Departure of traditional forms of construction is also considered as the cause of faults in building. The rapid industrial growth gives rise to use pre-cast and industrial products of building components. But such components are not always resulting good design, since they are not produced according to individual need of design. In addition the traditional methods were also responsible for producing good skilled workers.

Macdonald (2003) has addressed the cause of poor construction towards faulty construction and maintenance and mentioned that the performance of reinforced concrete can be severely reduced by poor design and construction techniques. These may cause reinforcement corrosion or degradation of concrete itself, which in turn may lead to reinforcement corrosion.

Discussing the causes of faulty construction Holland and Montgomery (1992), mention that causes of construction are complex, mostly due to falling standards of workmanship, inadequate understanding of how non traditional materials can be worked and installed and poor supervision. Holland and Montgomery also record that, this problem has given birth to deliberate hiding of the genuine mistake to avoid the embracement and save the cost of remedial work. The study further adds that, incorrect choice of material for

exposed and wet condition, inadequate specification of workmanship and tolerance also causes defects.

Study of Calvert (2001) has worked out the various factors of building failure and considers that the bad design and faulty construction are the major causes of building failure. However, maintenance is the first alarm of building failure. According to Calvert the buildings like all structures, are designed to support certain loads without deforming excessively and like long bridges, tall buildings are subject to catastrophic collapse. The study considers following factors as causes of building collapse.

- i. Bad Design (foundation failure and improper loads design)
- ii. Faulty Construction
- iii. Unexpected Failure Modes
- iv. Combination of Causes

Al-Hammad et.al. (1997) has worked out the various types of design defects, which influence building maintenance. The findings were based on the overall opinion of parties mostly concerned with building maintenance, construction, designing, and users. The research highlights the several stages where defects emerge in building and provoke the maintenance procedure. The study has identified the following causes of design those are responsible for maintenance at occupational stage of building; lacking of design consideration in building components, material selection, replacement or alternated materials, ignoring the climatic effect of exterior shape, and improper ventilation design are major causes of faults in building taken under case studies. Where as the lack of references in detail drawings, conflicting drawings and in sufficient details from designer is held responsible to cause of maintenance.

Research of Al-Hammad et.al. has also worked out the influence of construction *specification* on maintenance at post occupational stage and according to findings, various types of specification are subject to cause maintenance in buildings. And among those inadequate definitions of material, specifying inadequate concrete mix design and unclear specifications of materials are most influenced types.

Another important finding of this research is about non provision of *maintenance measures* in buildings causing maintenance. It includes defects caused by improper planning and ignoring the requirements of preventive maintenance during the design stage. And research identifies this maintenance causing factors as underlying access for maintenance equipment, introducing permanent fixations and maintenance requirements in the design. In addition to that the research also relates miscellaneous factors causing maintenance in building, which can be stated as hiring unqualified designers, misjudgment of climatic conditions, lack of designer's technical background and misjudgment of user's intended use.

The overall account of above revealed that presence of factors such as, construction detailing, construction specification, design communication gap could ensure a good quality design and their absence could result in deficient design. This development provides the perception of existence of Design Eco-System in built forms. Most commonly the term Eco-System is considered as natural balance that means if natural balance is disturbed at one end it would affect the other end also. This research considers this natural balance as a metaphor for building design system. Therefore, this study is

suggesting that design, and maintenance should be understood in terms of Design Eco-System. Similar to natural balance, the Design Eco-System can be defined in terms of balance and imbalance design. For example, as shown in Figure 2, design practice in the absence of any one or more than one criterion at stage-1 could disturb the design balance and could result to design with unplanned maintenance. Similarly, if all design criterions at stage-1 would be considered, perhaps it could result in a balance design with planned maintenance only.

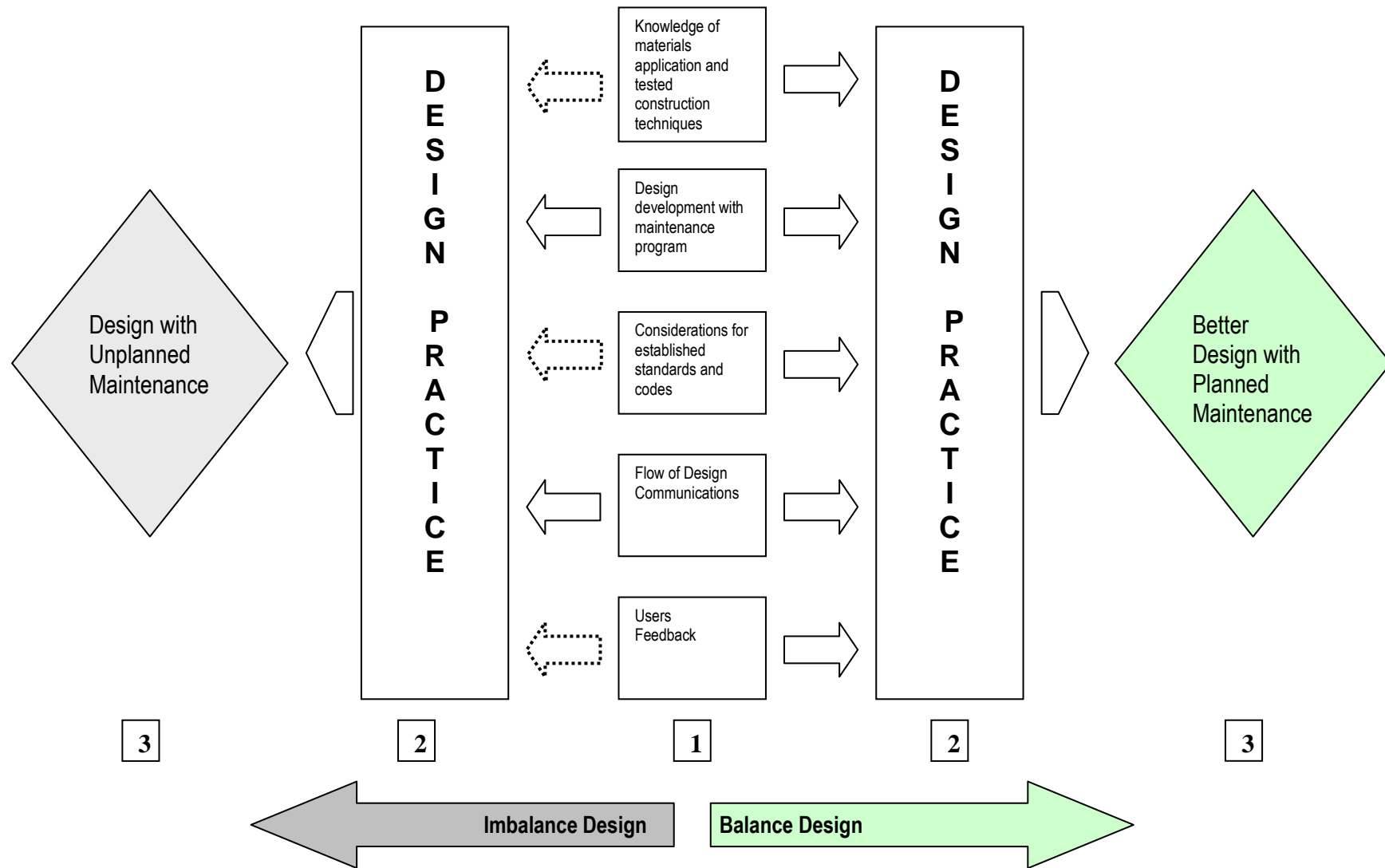


Figure 2 Conceptual Model of Design Echo-System

3. Conclusion

The purpose of this study was to reveal the post occupational issues of maintenance in the built forms and to develop a viable link between design and maintenance. This study has established that designing a built environment should not be done in the isolation of an office or only by some building professional. In order to design a trouble free building it requires consultation and rethinking of the housing design programme in the context of post occupational surveys, maintenance and users feed back. The maintenance experts along with user's interaction and interventions are important to incorporate at design stage. The study of (Ghasson, 2003; Ramly, 2006) have presented a viable link between design and building maintenance. Whereas case studies of (BRE, 1998; Al-Hammad et.al., 1997) has worked out the several building defects and issues of deficient design and maintenance in buildings. (Holland and Montgomery, 1992; Calvert, 2001) have workout the issues of construction phase responsible for building maintenance.

During the review of literature several causes of deficient design and resultant maintenance has been identified at various stages of the design and construction phases. Among them some of the causes act as an independent manner but most of them are correlated. However, the common element among these identified causes is that their severity influences the maintenance procedure in building. Few of these implicate the building as a single defect but most of them implicate in multifaceted. The following factors have been identified by this study as the defect causing elements in built forms.

- i. Lack of construction detailing
- ii. Conflicting drawings
- iii. Incomplete construction specification
- iv. Communication gap,
- v. Feed back from the end user,
- vi. lack of standardization
- vii. Poor workmanship,
- viii. Use of substandard quality of materials,
- ix. Inadequate understanding for use of non traditional materials
- x. No counseling for replacement or alternated materials
- xi. Departure of traditional forms of construction and
- xii. Improper planning and ignoring the requirements of preventive maintenance

These listed factors effectively address the numerous design problems of various built forms and explained that non availability of these factors causes deficient design. This research has established that availability of these factors in design is characterised as factors of the good design. These factors are important to a successful design solution and their presence in design is highly advocated by the precedent researchers. Perhaps it could be asserted that the presence of these factors in design solution could promise the success of built form. Consequently, effectiveness of these factors could help to evaluate and differentiate between a balance and imbalance design. The designers could use these factors as self guiding and design assessing tool during the process of design development. A simple comparison about a presence of these factors in design could lead the designer to have more effective design to cater for different conditions.

Future Research

This research has taken account of design defects and their implications in various types of building. However, for more specific and focused study it is required to categorize the design defects for particular type of building. It is recommended that the future's research could target on the specific type of building to evaluate the design defect and its implications (maintenance) in following types of building:

- i. Hospital buildings,
- ii. Transport (bus terminals, airports, railways stations) buildings
- iii. Educational buildings,
- iv. Office buildings
- v. Commercial centers
- vi. Residential buildings (low to high rise)

These recommended areas of research would help to highlight the specific design problems at post occupational stage in each type of listed building. And eventually this would help to establish a design criterion for designers and building professionals to improve their design practice in context of post occupational assessment.

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Impact of Family Friendly Policies on Employees' Job Satisfaction and Turnover Intention (A study on work-life balance at workplace)

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Abstract

Work-life conflict has a damaging effect on job satisfaction, organizational commitment, productivity turnover, and absenteeism. On an individual level, work-life conflict is associated with employee burnout, mental health issues, substance abuse, and diminished family functioning. Thus, work-life balance is an important issue to the Banking industry, in terms of both organizational effectiveness and occupational health. Long and inflexible work hours are the most consistent predictor of work-life conflict among Banking employees, particularly those working in office. There is considerable resistance to the adoption of new ways of scheduling work within the banking industry. This paper describes the post hoc evaluation of a compressed work week (reducing the length of the working week, but increasing the length of the working day) in a case study. Quantitative and qualitative data are presented to demonstrate the beneficial impact of the initiative on employees' work-life balance. The evaluation provides prima facie evidence that alternative work schedules can improve Banking employees' work-life balance, creating benefits for Banking employees and corporate organizations. The paper concludes that project alliances provide an ideal environment in which work-life balance initiatives can help to create high-performance work systems in the Banking sector.

Key words: Work Life Balance, Absenteeism, Work Life Conflicts, Organizational Effectiveness, High Performance Work System.

1. Introduction

Work- life balance seems to be an important part of corporate social responsibility nowadays. Good employers need to recognize their obligations so that they can ensure employees are not working so hard to damage their lives outside of work or lead to health problems increasing levels of stress can rapidly lead to low employee morale, poor productivity and decreasing job satisfactory. More and more employees are expressing significant to severe stress over workload and work-time pressures. Prior research showed that the benefits of implementing family friendly policies in organization can significantly address employee retention, job satisfaction, employee morale and productivity.

1.1 Statement of Problem

In recent years, there has been an increasing trend for organizations to implement more family friendly policies such as five day work week, flextime, family leave, and employee assistant programs to improve employee morale and productivity by reducing absenteeism and turnover. Our concern is on these factors “*The impact of Family Friendly Policies on Employees' Job*

Satisfaction and Turnover Intention in Banking Industry of Pakistan.” For example, five-day work week is believed as initiative that would most assist employees in achieving work-life balance. Therefore, a comprehensive study on the impact of entire family friendly policies is needed in gaining a better understanding of the policies in order to make the implementation in the future.

1.2 Purpose of the study

The aim of this study is to look at the impact of family friendly policy on employees' job satisfaction and turnover intention. Results of this study will be useful for banks to better decide the policy to use, consequently helping banks increase the productivity and effectiveness and retain the talents. Besides, this study can also aim to cultivate a family friendly workplace in Twin cities and overall Pakistan banking sector as a result to help employee achieve work life balance.

1.3 Research Questions

- i. There is positive relationship between family friendly policies and employees' job satisfaction.
- ii. There is negative relationship between family friendly policies and employees' turnover intention.
- iii. There is positive relationship between employee's job satisfaction and turnover intention.
- iv. Job satisfaction as a mediator between family friendly policies and turnover intention.

2. Literature Review

2.1 Family Friendly Policies

Family Friendly Policies is defined as any benefits and working conditions that an organization has in place to assist an employee balance their work and life (Bardoel, Moss, Smyrniotis & Tharenou, 1999). Literatures revealed family friendly policies that are in place to help employee achieve a balanced work life. It can be effective tools in promoting job satisfaction, productivity and company loyalty among employees. Also, it seemed to generate continued support within the business community. (Saltzstein & Ting, 2001). Some researches showed the impact of family friendly policies on employee's turnover intention. Employees who had access to family-friendly policies showed significantly greater organizational commitment and expressed significantly lower intention to quit their jobs (Grover & Crooker, 1995). Moreover, social justices predict that employees will have more positive attitudes toward organizations that are perceived as treating employees fairly (Greenberg, 1990). For instance, employees will be more committed to the organizations when they were treated with an equitable management system. As a result, the following hypothesis is tested.

In order to get a better understanding of which component of family friendly policies has shown the greatest impact on job satisfaction and turnover intention. The four main components below are tested individually. They are a) five day work week, b) flextime, c) family leave policies and d) employee assistance programs.

a) Compressed Workweeks (Five day work week)

A compressed work week is an arrangement where an employee works the standard number of hours in a one or two week period, but compresses those hours into fewer work days thereby working longer hours at work (Enterprise One Insights, 2006). This article suggested that

compressed workweeks are suitable for employees who do not need to deal with incoming work on a daily basis or there are several employees doing the same job. It revealed that organization can reduce stress; employee absenteeism and turnover thereby increase employee morale and loyalty.

b) Flextime

Flexible working arrangements take a number of forms. These include the flexibility in working time arrangement, the number of hours worked and with regard to place of work

(Papalexandris & Kramar,1997). Nowadays organizations adopt various kinds of flextime policies such as flexible scheduling program, job sharing, part- time work, teleworking etc in workplace. Prior researches on flextime examined that absenteeism and turnover could be reduced and employees' job satisfaction was improved when implementing such flexible programs (Narayanan and Nath, 1982; Pierce and Newstrom, 1983). For employees, flexible working arrangement can facilitate the reconciliation of work and family needs and allow individuals to balance both responsibilities and thereby achieve quality of life. The benefits of flexible work policies were demonstrated in a bank of Australia with improved customer services and reduced turnover and absenteeism. (Papalexandris & Kramar,1997). Besides, Grover and Crooker(1995) also reported a negative relationship between this policy and turnover intention. Therefore, it is believed that employees are more likely to stay in the organization when they were adopted flexibility work schedule.

c) Family Leave

Family leave policies allow employees to be away from the workplace for varying period of time in order to deal with family responsibilities (Bond & Wise, 2003).

d) Employee Assistance Programs

Employee assistance programs are designed to recognize the interaction between people's domestic and working lives and to offer confidential counseling to staff to address personal or other problems, including work-related stress that may be affecting their performance (Clemmet, 1998). The nature of today EAPs is different from organizations to organizations. The typically examples of EAPs included providing assistance in the areas of personal issues, relationship issues, eldercare, childcare, parenting issues, harassment, substance abuse, job stress, balancing work and family, financial or legal and family violence. Some EAPs providers are also able to offer other services including retirement or lay-off assistance, and wellness and health promotion and fitness while others may offer advice on long term illnesses, disability issues, counseling for crisis situation. Therefore, EAPs does not just limit on counseling services and may include life skills programs and fitness programs. It can assist employees in managing stress and resolving personal problems as well. Carolyn & Cooper (1994) reported that EAPs are an important to improve employee mental and physical well-being so that they have better performance at work and enhanced job satisfaction and reduced turnover intention.

2.2 Turnover intention

Turnover intention as the thought of quitting, the intention to search for another job elsewhere, and the intention to quit as assessed in the turnover model of Mobley et al. (1978). It is assumed that employees with high degree of turnover intention fro an organization will subjectively assess

that they will be leaving the organization in the near future (Mowday et al., 1982). Grover & Crooker (1995) had investigated the relationship between different family friendly policies and turnover intention.

Turnover is defined as the cessation of membership in an organization by an individual and their movement out of an organization. Voluntary and involuntary turnover are commonly distinguished. Voluntary turnover is individual movement across the membership boundary of a social system initiated by the individual while involuntary turnover is movement not initiated by the individual, probably by the organization (Price, 1977; Mobley, 1982; Reggio, 2003). Even though turnover is most frequently thought of in terms of negative organizational consequences, the movement of employees in and out of an organization is however able to revitalize an organization. The most obvious positive consequence is replacement of better performers in the organizations. When turnover occurs, it creates opportunities for replacement which subsequently brings with innovation, new ideas and approaches, contributing to organizational effectiveness via change. Turnover may also be able to reduce cost by eliminating or merging vacant positions as high-priced talent may be traded for lower-priced talent with equal capabilities (Roseman, 1981). Besides, turnover may be the last-resort of conflict resolution as many personal or task conflicts are not easily resolved, especially if they stem from differences in fundamental values or beliefs. Turnover may be the ultimate solution to conflict in order for the organization to function effectively (Staw, 1980). Nevertheless, turnover of employees disrupts teams, raises costs, reduces production, and results in lost knowledge (Mustapha & Mourad, 2007). It is a negative aspect, appearing to reflect significant work place problems. The loss of employees through turnover may result in increased recruitment and training costs and loss of productivity as projects lose continuity and key activities are interrupted. Mistakes flourish as overloaded employees try to fill in until replacements are hired and trained (Roseman, 1981; Sagie et al, 2002). There is also a chance even after going through the hiring process that the wrong person for the job was hired. If an organization realized that they have in fact hired the wrong person, either way more time must be invested by either trying to save the new hire, or go through the hiring process once again (Sammer, 2000). In addition, turnover may negatively affect the attitudes and morale of those who remain. When employees leave an organization voluntarily, they often justify their departure by finding fault with their jobs while other employees within the organization will develop their own perceptions of why another employee left. The inferences can damage the work environment and relationships by spreading inconsistent mistruths. A single termination may be accompanied by a series of terminations in rapid succession (Roseman, 1981). Organizational climate is defined as a global impression of one's organization and personal impact of the work environment, which influences the individual's work behaviors and job-related attitudes. It describes the perception of employees towards their organizations which would link to work attitude formation (Litwin & Stringer, 1968; Pritchard & Karasick, 1973). In the organizational climate construct, structures are usually designed to ensure that the mission and strategy of the organization are effectively implemented. It deals with levels of responsibility, decision-making authority, and formal reporting relationship with others in the organization (Isaksen & Laurer, 1998). Litwin and Stringer (1968) defined responsibility as the employees' perceptions of the degree of autonomy extended to them by the organization, the feeling of being their own boss and not having to be double-checked on their decisions made. Employees are found to experience emotional exhaustion when they perceive inconsistencies in management expectations and lack of clarity about their job responsibilities (Jaramillo et al., 2006).

Reward identifies the feeling of being rewarded fairly and equitably as well as the perceived organization's promotion policies. If an employee feels that he or she is unlikely to obtain a good evaluation or promotion even after having great endeavors in such a working environment, he or she will probably search for another job elsewhere (Huang et al, 2003). Support is referring to the perceived helpfulness of the managers and other employees in the group which emphasizes mutual support from people in the organization. Climate with perceived good support is believed to have low level of interpersonal conflict. Empirical findings suggest that perceptions of organizational politics are significantly related to turnover intentions. Even though quitting may not prove feasible due to lack of suitable external opportunities or other restrictions, psychologically the person may still intend to leave the organization. Stephen Robbins (2005, p. 100) defined personality as the sum of ways individual reacts to and interact with others. He commented that an adult's personality is generally made up of both hereditary and environmental factors, moderated by situational conditions. Organizations nowadays are concerned with employees' personality primarily because personality factors are important in organizational settings. Employers are more interested in finding applicant's flexibility to meet changing situations than ability to perform the job. As organizations face a dynamic and changing environment, employees are required to be able to readily change tasks and move fluidly between teams. It is probably more important that employees' personality fit with the overall organization's culture than with the characteristics of any specific job. Personality has the impact on how employees interpret their organizational environment, and hence shaping the behaviors in light of those interpretations. When an individual's personality has a high degree of congruence with the work environment, it is believed to result in stability and lower turnover rate. A dominant employee is one who is confident, effective, competitive, outspoken and shows a greater desire for and the use of power. In contrast, a less dominant employee would be reluctant to exercise authority and possibly reluctant in directing the activities. A dominant personality is associated with turnover intention as dominant employees are highly self-confident which predicts greater emotional stability and self-control and therefore is well-adjusted. A well-adjusted employee is likely to have higher tolerance of stress and attempts to be well adjusted to their work environment (Locke, 1991; Yuki & Van Fleet, 1992; Viswesvaran & Deshpande, 1998). the sociable employee would be one that exhibits comfort and confidence when interacting with others. In contrast, a non-sociable employee would have difficulty interacting with others and might feel uncomfortable when speaking in public (Downey et al, 1975). Sociable individuals possess positive orientation towards the world in general and to social interactions, experiencing positive emotions. Positive emotions are likely to be correlated with job satisfaction and employees tend to be less likely to quit their jobs (Sherman, 1989; Connolly & Viswesvaran, 2000). Turnover intention as the thought of quitting, the intention to search for another job elsewhere, and the intention to quit as assessed in the turnover model of Mobley et al. (1978). It is assumed that employees with high degree of turnover intention from an organization will subjectively assess that they will be leaving the organization in the near future (Mowday et al., 1982). Grover & Crooker (1995) had investigated the relationship between different family friendly policies and turnover intention.

2.3 Job satisfaction

According to Weiss, Dawis, England and Lofquist(1967), job satisfaction is the overall summary evaluation a person make regarding his/her work environment. Spector (1997) defined job satisfaction as an individual's cognitive, affective and evaluation reactions towards his or her

job. Cranny et al. (1992) also defined job satisfaction is a combination of cognitive and affective reactions to the differential perceptions of what an employee wants to receive compared to what he or she actually receives.

2.4 Job satisfaction and Turnover intention

Some literatures demonstrated that employees’ job satisfaction and employees’ commitment are predictors of turnover (Mowday, Porter, and Steers, 1982; Cotton and Tuttle, 1986; Carsten and Spector, 1987). Besides, Ostroff (1992) also showed the close association among job satisfaction, organizational commitment and reduced turnover, and demonstrated the clear influence that job satisfaction had on the turnover intention of engineering staff. Spector (1997) has also investigated the relationship between job satisfaction and turnover intentions. Therefore, the following hypothesis is tested.

2.5 Meditating effect of job satisfaction

Base on the above literatures reviews closely supported the relationship among family friendly policies, job satisfaction and turnover intention. It should be interesting to examine that the mediating effect of job satisfaction between family friendly policies and turnover intention. Therefore, the following hypothesis is proposed.

3. Theoretical Framework

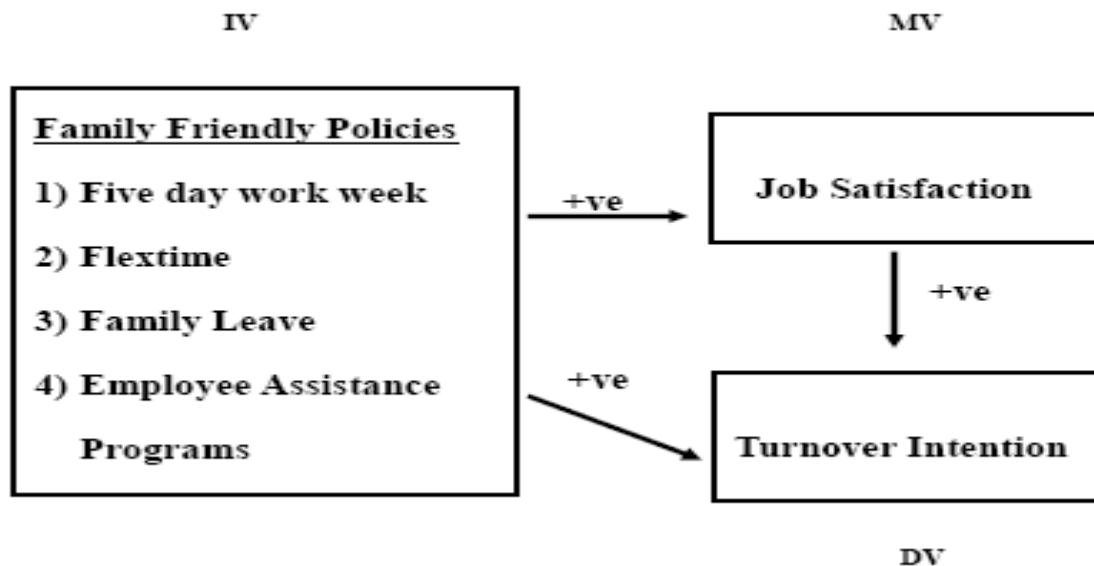


Figure 3.1

4. Methodology

4.1 Sample

Data has been collected by using a questionnaire and direct interviews for measures of the impact of family friendly policies on employee job satisfaction and turnover intention. A questionnaire has been distributed to full time employees in United Bank Limited in different branches of twin cities.

The questionnaires were sent and collected personally. A total of 30 out of 40 questionnaires distributed were returned,

4.2 Measurement Instruments

For demographic factors, respondents were asked to indicate their gender (Male \ female), age, education level, marital status, presence of dependent children, and company size.

5. Data Analysis

There are several steps for analyzing the data. First, using Tabulation and calculate the total number of answers and second the pie charts for showing data in % (percentages).

6. Recommendation

This research only gives an idea of how family friendly policies affect the job satisfaction and turnover intention in the banking industry of Pakistan. The explanation and insight are quite limited for support the finding. Therefore, the analysis approach is suggested for further research to determine which category contributes the greatest extent on the impact on job satisfaction and turnover intention. The implementation of family friendly policies does not ensure their actual utilization. Without the supportive company H.R management and its nature, especially for managers, the desired outcome of implementing the policies will be weakened. The creation of family friendly work culture is one of the most important concerns for future research. It is suggested using family friendly policies for reducing turnover intention and promoting positive outcome such as organizational commitment, employee retention and reduced related stress. It can be determined how and why family friendly policies are utilized and the impact of job-related attitudes and career outcomes.

7. Conclusion

This study examined the significant impact of family friendly policies on employee's job satisfaction and turnover intention. Employee termination/leaving can hurt the overall productivity of an organization and is often a symptom of other difficulties. Some employment leaving comes quickly and as a surprise to both the employees and employer. When there are multiple causes for leaving, one is predominant. Turnover mainly a symptom of other problems, especially dissatisfaction with work or working conditions. Measures taken to prevent turnover are bound to improve other operating results as well. Turnover is costly in terms of time and effort required to recruit, select, and train new personnel. To avoid turnover, organizations may develop some Family friendly Policies. The benefits to the organization for adopting more family friendly policies are clear, to gain a healthy and productive workforce. The findings of this study support and encourage more family friendly workplaces in Pakistan. It serves as reference for organization to propose more effective policies in the future.

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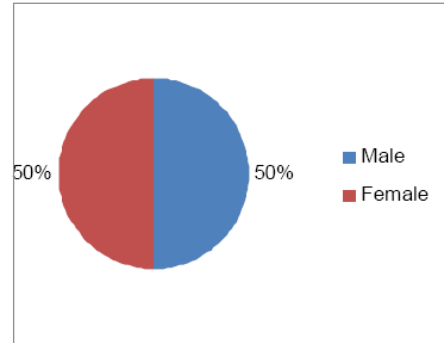
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Annexure

**Table and Graph 1: Descriptive Statistics of Demographics Characteristics (N=30)
Demographic Variable Tabulation and Frequency Percentage**

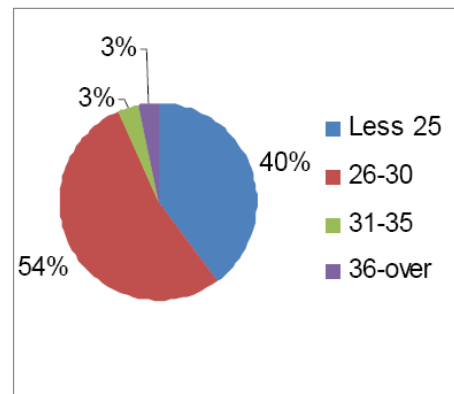
Gender

S.No.	Q No.	Q No.	No.
		D1	D1
1	Male		15
2	Female		15



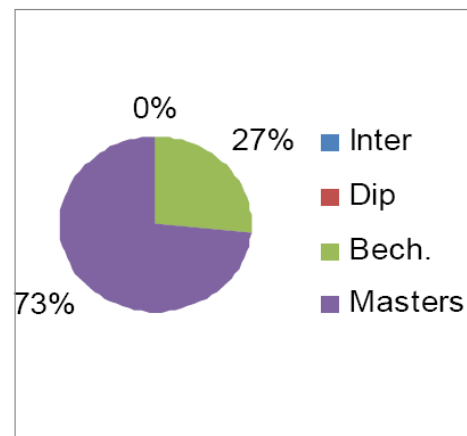
Age

S.No.	Q No.	Q No.	No.
		D2	D2
1	Less25		12
2	26-30		16
3	31-35		1
4	36over		1



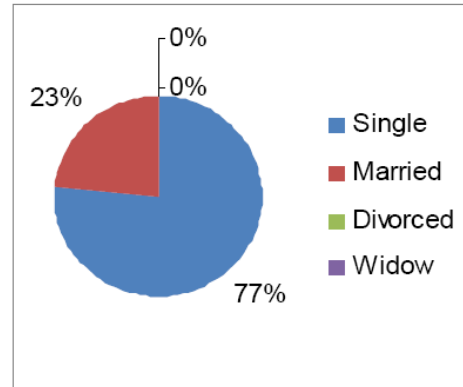
Education Level

S.No.	Q No.	Q No.	No.
		D3	D3
1	Inter		0
2	Dip		0
3	Bech.		8
4	Masters		22



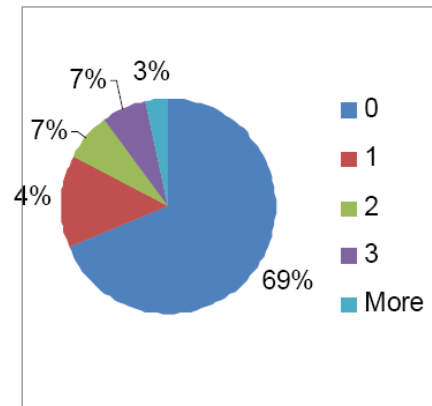
Marital status

S.No.	Q No.	Q No.	No.
		D4	D4
1	Single		23
2	Married		7
3	Divorced		0
4	Widow		0



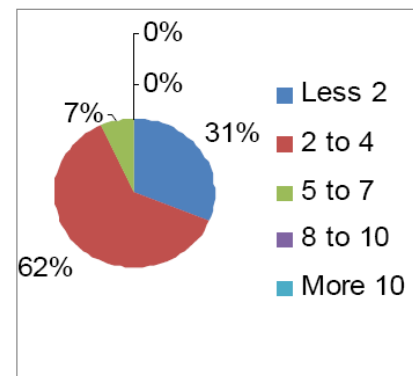
Presence of dependent children

S.No.	Q No.	Q No.	No.
		D5	D5
1	0		20
2	1		4
3	2		2
4	3		2
5	More		1



Tenure

S.No.	Q No.	Q No.	QNo.
		D6	D6
1	Less2		9
2	2 to 4		18
3	5 to 7		2
4	8to10		0
5	More 10		0



Company size

S.No.	Q No.	Q No.
	D7	D7
1	Less500	12
2	500-1000	1
3	1001-1500	1
4	More 1500	14

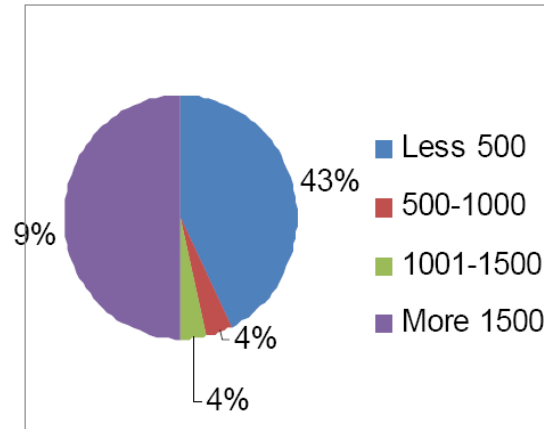


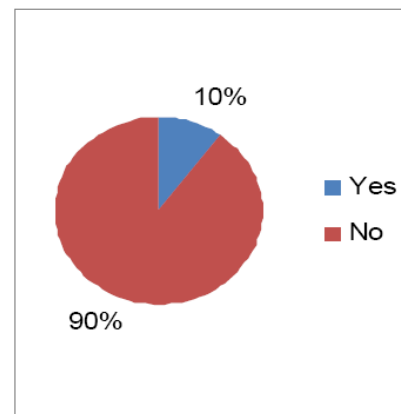
Table and Graph A1: Items of family friendly policies (N=30)

Items of family friendly policies Percentage

Provided Not Provided

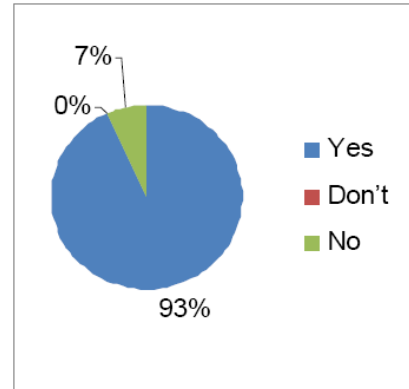
Five day work week

S.No.	Q No.	Q No.
	A1	A1
1	Yes	3
2	No	27



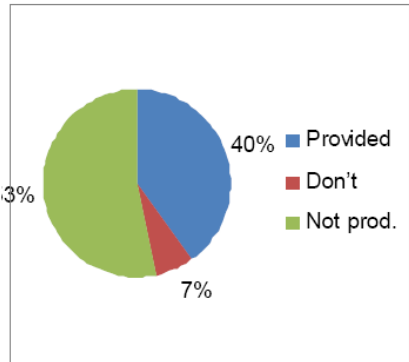
Policy implemented, or not implemented

S.No.	Q No.	Q No.
	A1	A1
1	Yes	28
2	Don't	0
3	No	2



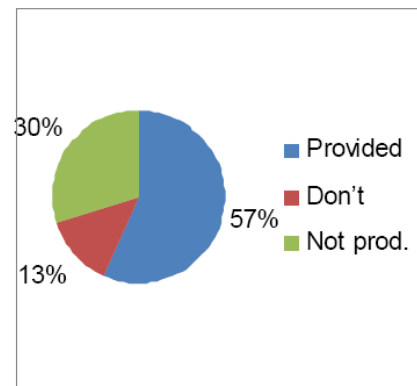
Flexitime

S.No.	Q No.	Q No.
	A5a	A5a
1	Provided	12
2	Don't	2
3	Not prod.	16



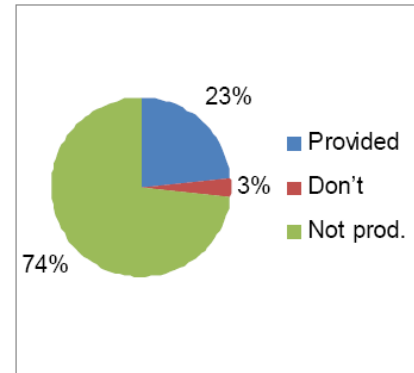
Job sharing

S.No.	Q No.	Q No.
	A5b	A5b
1	Provided	17
2	Don't	4
3	Not prod.	9



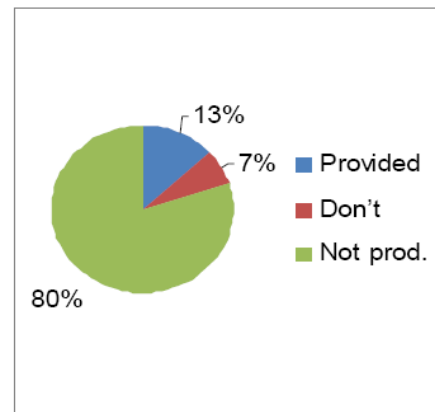
Work at home

S.No.	Q No.	Q No.	No.
		A5c	A5c
1	Provided		7
2	Don't		1
3	Not prod.		22



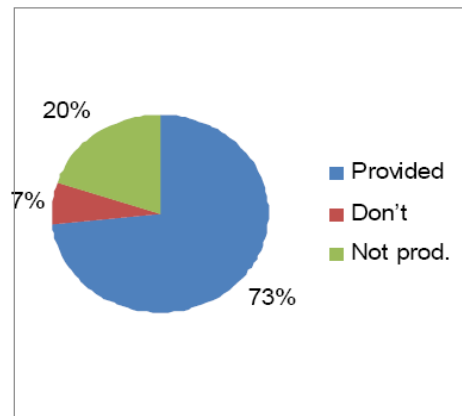
Part time work

S.No.	Q No.	Q No.	No.
		A5d	A5d
1	Provided		4
2	Don't		2
3	Not prod.		24



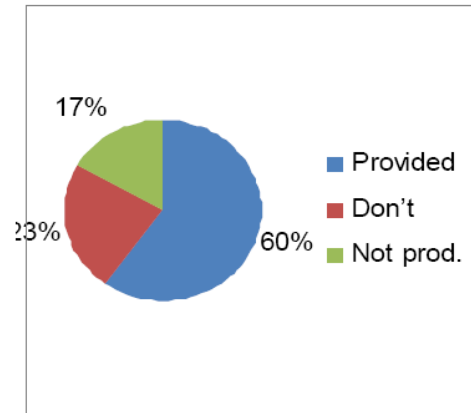
Family leave

S.No.	Q No.	Q No.	No.
		A3a	A3a
1	Provided		22
2	Don't		2
3	Not prod.		6



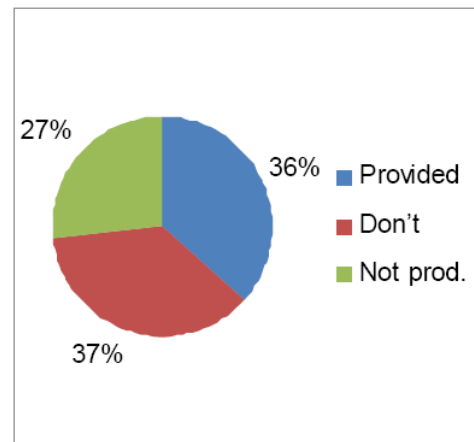
Compassionate leave

S.No.	Q No.	Q No.	No.
		A3b	A3b
1	Provided		18
2	Don't		7
3	Not prod.		5



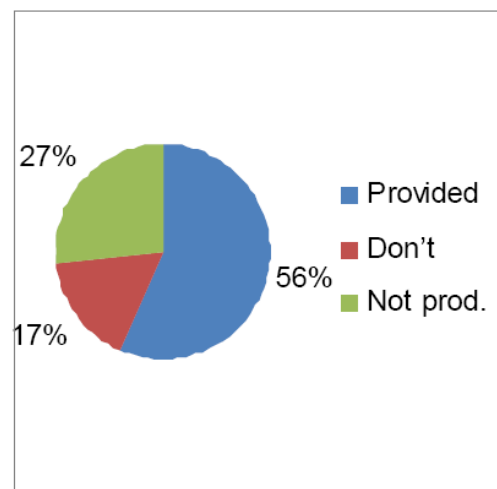
Extended paid maternity leave

S.No.	Q No.	Q No.	No.
		A3c	A3c
1	Provided		11
2	Don't		11
3	Not prod.		8



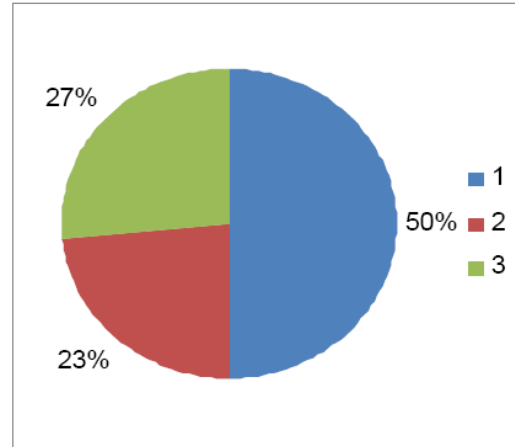
Paid leave to care for sick family members

S.No.	Q No.	Q No.	No.
		A3d	A3d
1	Provided		17
2	Don't		5
3	Not prod.		8



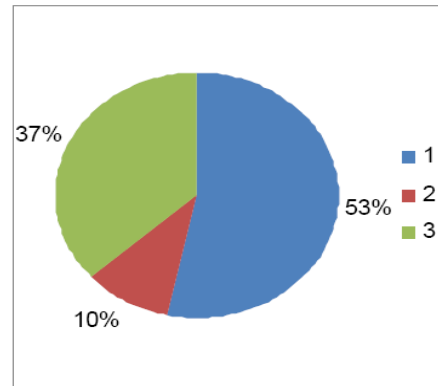
**Employee Assistance Programs(EAPs)
Professional counseling.**

S.No.	No.	Q
		A4a
1	15	
2	7	
3	8	



Employee Wellness

S.No.	No.	Q
		A4b
1	16	
2	3	
3	11	



Subsidized exercise or fitness centre

S.No.	No.	Q
		A4c
1	4	
2	7	
3	19	

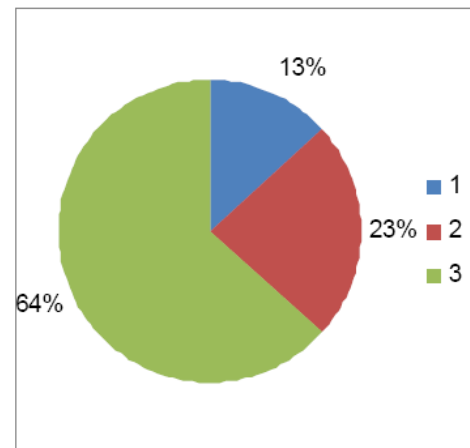
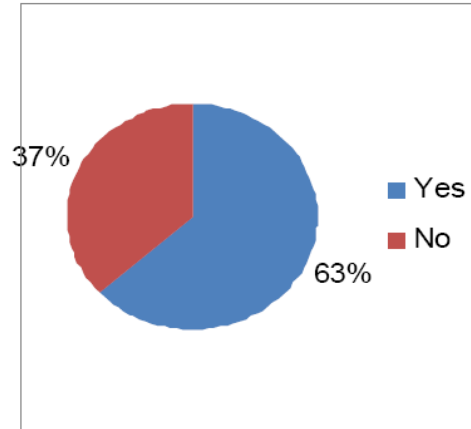


Table and Graph A2 (N=30)
Five day work week follow up question Percentage
YES NO

Q2. Do you support the implementation of five day work week policy in the workplace?

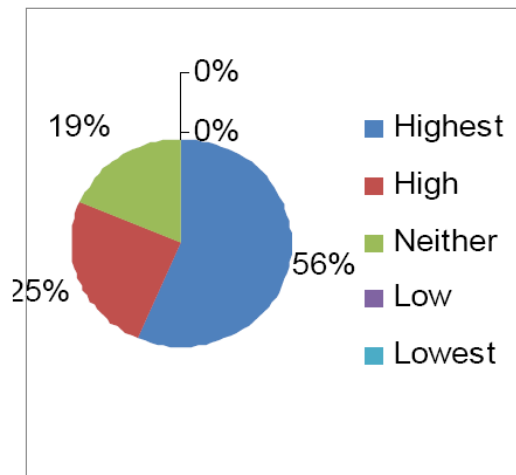
S.No.	Q No.	No.
	A2	A2
1	Yes	19
2	No	11



Q2a. If YES, how will you spend your leisure time during weekend?

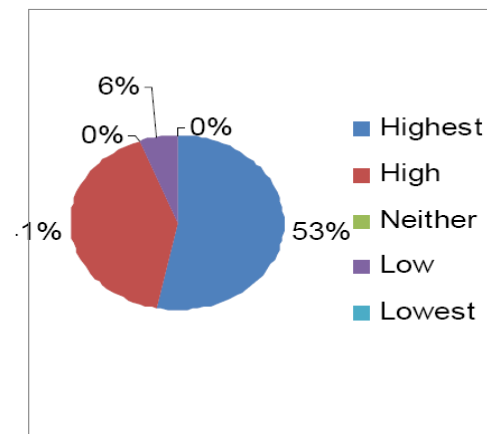
Take care of children

S.No.	Q No.	No.
	A2ai	A2ai
1	Highest	9
2	High	4
3	Neither	3
4	Low	0
5	Lowest	0



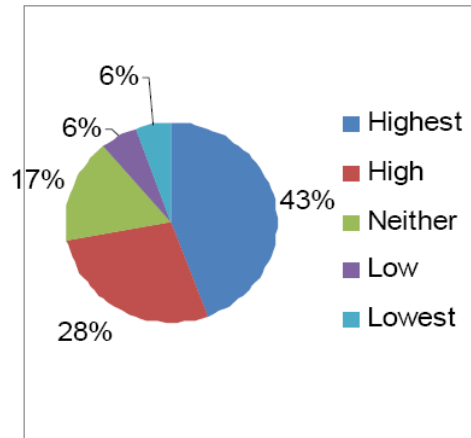
Deal with family issues/ household work

S.No.	Q No.	No.
	A2aii	A2aii
1	Highest	9
2	High	7
3	Neither	0
4	Low	1
5	Lowest	0



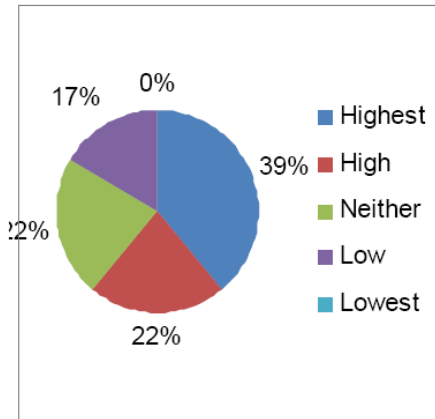
Continuing Education

S.No.	Q No.	Q No.
	A2aiii	A2aiii
1	Highest	8
2	High	5
3	Neither	3
4	Low	1
5	Lowest	1



Enjoy the personal life

S.No.	Q No.	Q No.
	A2aiv	A2aiv
1	Highest	7
2	High	4
3	Neither	4
4	Low	3
5	Lowest	0



A Short Study of E-Commerce in Iran; Barriers and Suggestions

Listed in ULRICH'S



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Abstract

One of the most important factors which help countries in the area of development is trading with Internet and buying and selling their goods by phone, email, or other internet based activities. This kind of marketing has own advantages and disadvantages. This paper aims to study the opportunities, challenges and barriers of E-Commerce in Iran.

Keywords: E-Commerce, Iran, Opportunities, Challenges

1. Introduction

E-Commerce is one of the most factors which enable a country to be competitive in today's turbulent market. It is necessary for all countries to use this technology. Developing countries need E-Commerce much more than developed countries (Arnold & Quelch, 1998; Terri et al, 2000; Nir 2001; Kofi, 2001; BBC News, 2001). Countries which have paid attention to this important and have used from the advantages of this, could develop them and raised their ranking in local and global economy.

In the last decade, the East Asian and Middle East countries like Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE, as the main producers of oil and natural gas may be for the reason of rising oil prices and production and GDP and their IT and ICT have been developed and have experienced a large expansion of ICT. And this has a positive influence on the creation of digital communities NGOs and societies (shirazi, 2009).

This paper discusses E-commerce in Iran.

2. Barriers of E-Commerce in Iran

There are some barriers for E-Commerce in Iran although these barriers are not just for Iran and other developing countries want to be developed have these and here we have listed some the most in Iran.

- i. Economic Barriers, most researches have proofed that having low internet speed caused low economy by measuring their performance (Dewan, & Kraemer, 2000; K.Y. Tam, 19998).
- ii. Lack of more E-Commerce expertise. Although in the recent years the number of expertise is increasing but it is not enough.
- iii. Trust Barriers, because the buyer and seller do not see each other so the buying process should be on trust. The buyers should trust that if the good is damaged they can easily exchange it.
- iv. Number of Internet Providers;

- v. Unavailability of International credit cards, Try to use international credit cards such Master, Visa although these cards have problems sometimes but for internationalizing they are good (Biederman, 2000; Charles, 2003; Claire, 2006)
- vi. The cost of internet using;
- vii. Lack of internet pricing service;
- viii. Social problems, Iranian people especially youth those who should involve more have difficulty to accept involvement in E-Commerce as a job for themselves. Especially when they want to marry they cannot be considered an employed person.

3. Some suggestions for developing E-Commerce in Iran

- i. Partnership with the private and public sectors in IT and ICT. Emerging different companies which provide ADSL and Dial Up internet connections increasingly grow in Iran and this caused the proficiency of services.
- ii. Developing Cognitive Factors, Iranian governors should improve cognition of people for Internet and E-Commerce by holding workshop and seminars for people freely.
- iii. Collaboration of local banks with entrepreneurs in the E-Commerce sections to give loan to them.
- iv. Collaboration of local banks with buyers and suppliers in the process of E-Commerce so that they can easily buy the good they want without refereeing to the bank because of not having good infrastructures of international payment systems 35% - 40 % of transactions are cash based not by card and other systems are not more developed (David, 2000; Kenny, 2003)
- v. Improving delivery system, for example reducing cost of delivering for buyers of E-Commerce. One god from Iranian post office is pay at home for E-Commerce in PISHTAZ POST.
- vi. Outsourcing, companies, public and privates should work on outsourcing their marketing sectors to be outsourced for professional companies in marketing. Those companies can do this better in comparisons by the own company some times (Kshetri, 2007).

4. Discussion and Conclusion

E-commerce is a technology that has tremendous effects on our lives and economy and managerial systems and also in business communities so it is important for our country's economy as the other countries which are trying to develop their E-commerce capabilities (Krovi & Vijayaraman, 2000).

As conclusion the government is more effective to deal with some factors (e.g., infrastructure) than private firms. Also there is much to be learned about e-commerce in the developing world (Kshetri, 2007).

4.1 Iranian governors should do:

Iranian governors should pay more attention for Cognitive barriers, for example they should try to solve the following problems:

- General and computer illiteracy
- Lack of English language skills
- Lack of availability of local language websites
- Lack of awareness and knowledge of e-commerce benefits
- Lack of confidence in service providers

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Open Source Private Cloud Computing

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Abstract

With growing business demands, Cloud Computing got a lot of interest for the researcher's in last few years. Organizations are now thinking to shift towards Cloud System's. However a lot of risk involves while moving towards the cloud environment because it place's organization all data in the 3rd party hand's which is providing cloud service. So there is need for organization to build there in-house private clouds which should be cost effective and should fulfill the security requirements. This paper paid attention towards the various open source cloud system which are helpful in creating private cloud's for organization's and discuss their security rules which they implement.

Keywords: Open Source Private Cloud Computing

1. Introduction

The name "Cloud Computing" got a lot of interest in last few years .Cloud term is basically the concept of providing the computing services over the internet. A Cloud shape refers to represent the Internet in network diagrams to hide the flexible topology and to abstract the underlying infrastructure. Cloud Computing uses the internet to deliver various different computing services including hardware, programming environments ,development resources and software while keeping users unaware of the underlying infrastructure and location.

Cloud Computing make enables users to access various computing resources simply, including computing cycles, storage space, programming environments and software applications (all you need is a web browser). Moreover, Cloud computing promises to provide other benefits:

- i. **Less investment:** With moving towards the cloud environment there is less investment over the resources and also a big saving of the time and space.
- ii. **Scale:** Cloud vendors have vast data centers full of tens of thousands of server computers, offering computing power and storage of a magnitude never before available – cloud computing promises virtually unlimited resources.

- iii. **Manageability:** The user experience is simplified as no configuration or backup is needed.

2. Cloud Types:

Clouds can be classified in terms of who owns and manages the cloud; a common distinction is Public Clouds, Private Clouds, Hybrid Clouds as show in Figure.1.

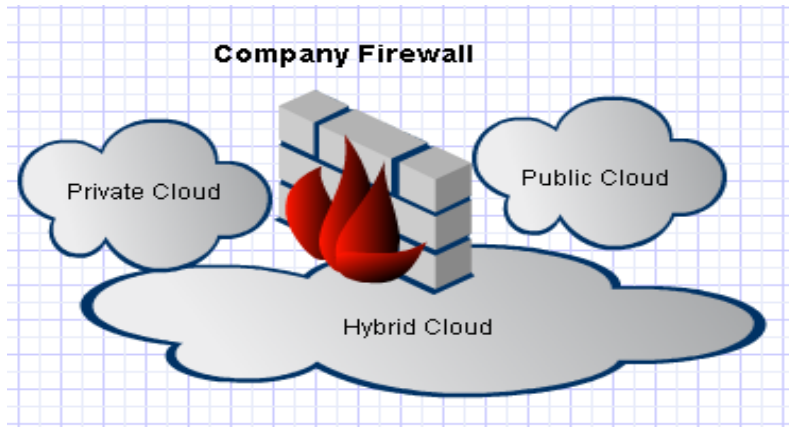


Figure.1 Cloud Types

2.1 Public Cloud:

A public cloud also called as external cloud , in which cloud computing services are made available to the general public on payment demand.

2.2 Private Cloud

A Private Cloud also refer as internal cloud, is used when the cloud infrastructure company want to deploy by themselves inside there company firewall and company perform the management of in-house cloud by itself.

2.3 Hybrid Cloud

In the Hybrid cloud, an enterprise can keep their critical, confidential data, information and applications within their firewall, while hosting the non critical information ones on a public cloud.

However , the security is the the main concern for the organization's while they are moving towards cloud environment.

3. Need of Private Clouds

The aim of a Private Cloud is not to expose to the world a cloud interface to sell capacity over the Internet, but to provide local users with a flexible and agile private infrastructure to run virtualized service workloads within the administrative domain.

Thus in order to prevent the organization data while implement the Cloud System , so organization's thought to develop in-house cloud environment and manage themselves.

4. Private Cloud Providers

A lot number of open source cloud providers are available , which are helpful in creating the private cloud for the organization. However this paper focus on Eucalyptus , OpenNebula and Nimbus which are famous open source cloud toolkit and also discusses there security features.

5. Eucalyptus

Eucalyptus is an acronym for Elastic Utility Computing Architecture Linking Your Programs To Useful Systems, an open-source software infrastructure for implementing “cloud computing” on clusters. The current interface to Eucalyptus is compatible with Amazon’s EC2, S3, and EBS interfaces, but the infrastructure is designed to support multiple client-side interfaces(shown in Fig.2). Eucalyptus is implemented using commonly available Linux tools and basic Web-service technologies making it easy to install and maintain. (<http://gigaom.com/2009/11/06/10-top-open-source-resources-for-cloud-computing/>)

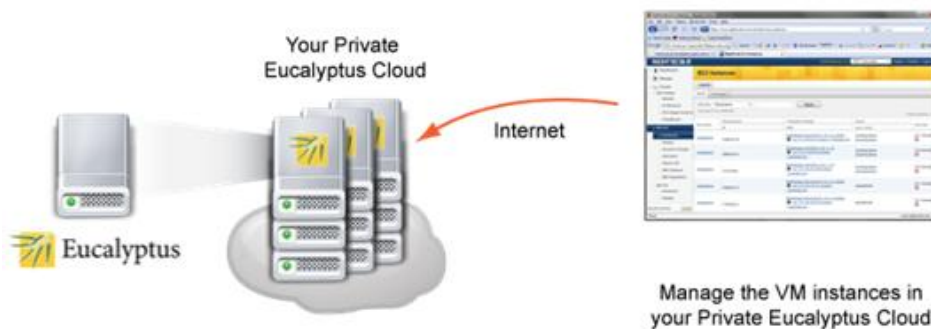


Fig.2 Eucalyptus Overview

Eucalyptus is software that implements scalable IaaS-style private and hybrid clouds. The Eucalyptus architecture is highly modular with internal components consisting of Web services, which make them easy to replace and expand. Eucalyptus' flexibility enables it to export a variety of APIs towards users via client tools. Currently Eucalyptus implements the Amazon Web Service (AWS) API, which allows interoperability with existing AWS-compatible services and tools. This also allows Eucalyptus users to group resources drawn both from an internal private cloud and external public clouds to form a hybrid cloud .

5.1 Architectural Overview

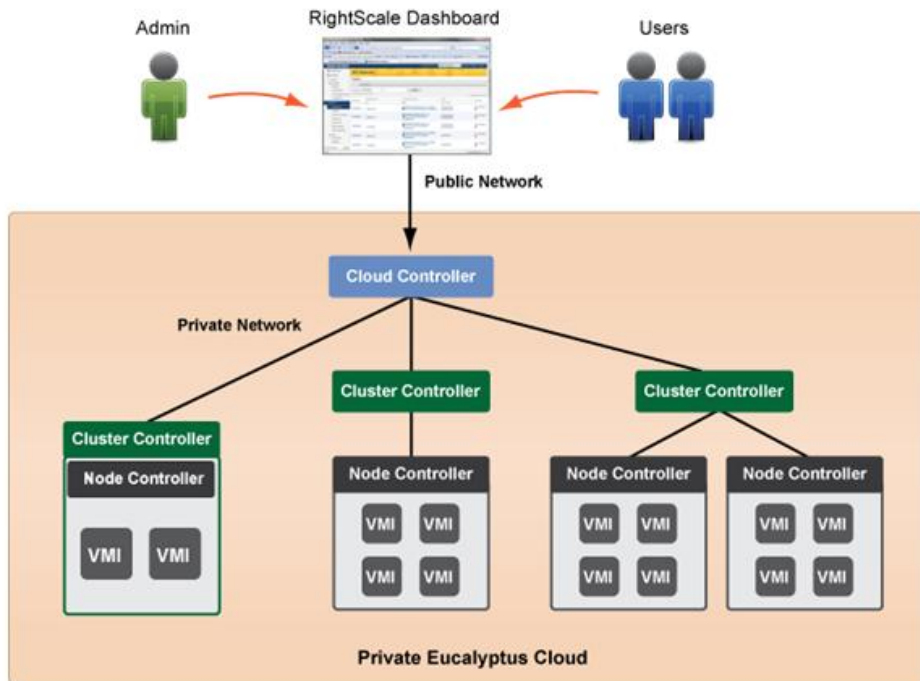


Figure 3: Eucalyptus Architecture

5.1.1 Node Controller

The NC is responsible for executing actions on the physical resources that host VM instances, such as launch, inspect, shutdown, and cleanup. A Eucaplyptus cloud may consist of several Node Controllers. Since each NC can manage multiple virtual machine instances, only a single NC is required for each physical machine.[11]

5.1.2 Cluster Controller

The CC is responsible for managing a collection of NCs (cluster) that work together. The CC has access to both the private and public networks and is usually located on the cluster's head node or front-end server. The CC monitors the state information of all instances in the pool of NCs and coordinates the flow of incoming input requests. The CC will send an input request to the first NC that has enough free resources to handle the job description. Each CC controls a virtual pool of common servers that is similar in nature to an "availability zone" in Amazon EC2.[11] As shown in the diagram above, there is one Cluster Controller per "availability zone".(shown in Fig.3).

5.1.3 Cloud Controller

The CLC is responsible for processing incoming requests from external clients or administrators. Each Eucalyptus cloud will have a single CLC. It's the user-visible entry point and global decision-making component that makes high-level VM instance scheduling decisions, processes authentication and SLAs, and maintains persistent system and user metadata.[11]

5.2 Security in Euclyptus

- Eucalyptus components always use WS-security for authentication.
- SSH keys provide root level access. The cloud controller generates the public/private SSH key pairs and installs them on each instance.
- Admin can invite users to their cloud by providing them with a private token. Users can enter the token in a dialog box to register and gain access to the cloud.
- Admin can add/remove users.

6. OpenNebula

OpenNebula was designed to address the requirements of business use cases from leading companies and across multiple industries, such as Hosting, Telecom, eGovernment, Utility Computing. The principles that have guided the design of OpenNebula are:

- Openness of the architecture, interfaces, and code
- Adaptability to manage any hardware and software combination, and to integrate with any product and service in the cloud and virtualization ecosystem
- Interoperability and portability to prevent vendor lock-in
- Stability for use in production enterprise-class environments
- Scalability for large scale infrastructures
- Standardization by leveraging and implementing standards

6.1 Architectural Overview

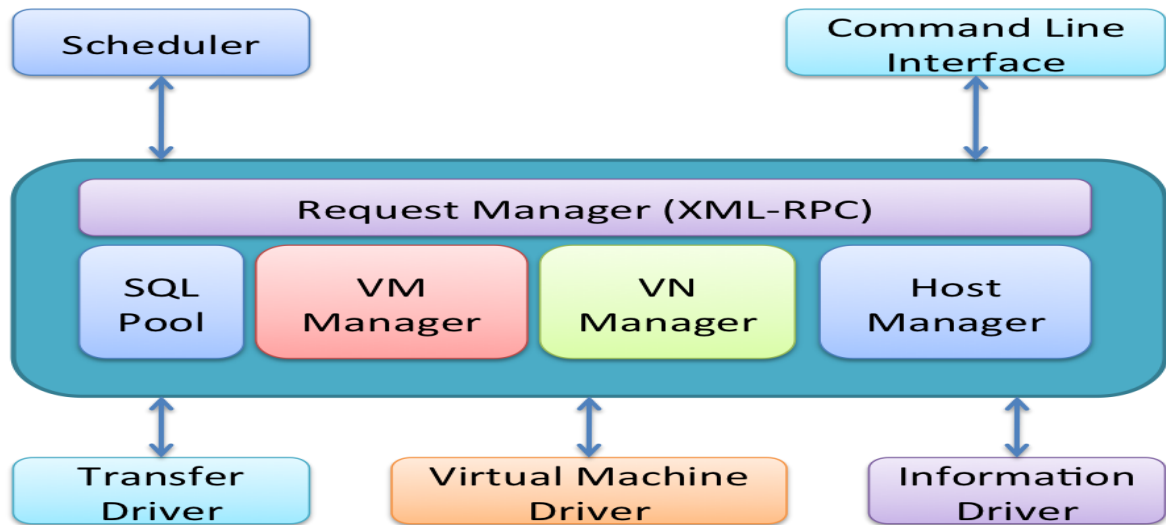


Figure 4: OpenNebula Architecture

- Scheduler: deploy VMs in physical hosts
- Request Manager: implements a XML-RPC interface
- SQL Pool: maintains status of VMs, hosts, virtual networks.
- VM (Virtual Machine) Manager: manages VM life cycles.
- VN (Virtual Network) Manager: generates MAC / IP addresses. (shown in Fig.4).
- Transfer Driver: interacts with the image operations (cloning, deleting, ...)
- Virtual Machine Driver: interacts with the VM life cycle operations (deploy, shutdown, ...)
- Information Driver: gets information about physical hosts (memory, cpu, ...)

6.2 Security in OpenNebula

OpenNebula uses SSH to access VM over the network in order to provide the security. (shown in Figure 5)

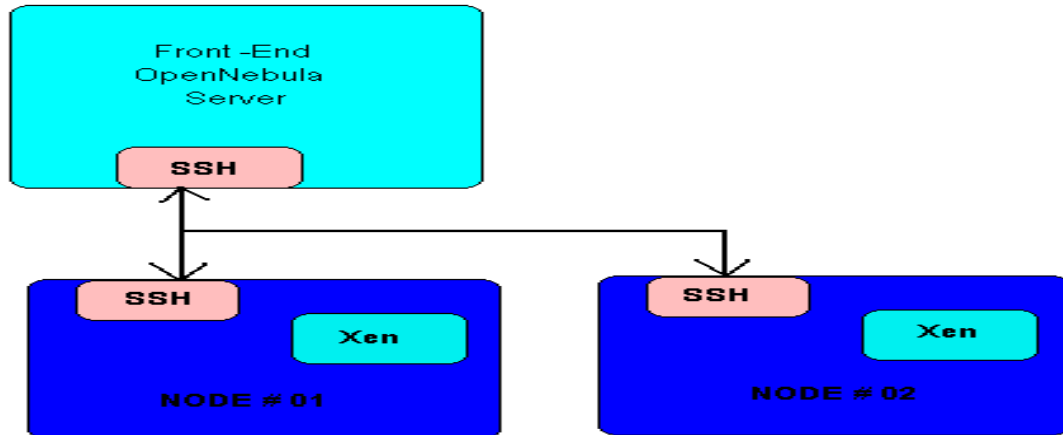


Figure 5: OpenNebula Security

7. Nimbus

Nimbus allows a client to lease remote resources by deploying virtual machines (VMs) on those resources and configuring them to represent an environment desired by the user. This is known casually as *cloud computing* (one definition of it), a little more specifically as an "infrastructure-as-a-service" (IaaS) solution.

7.1 Architectural Overview

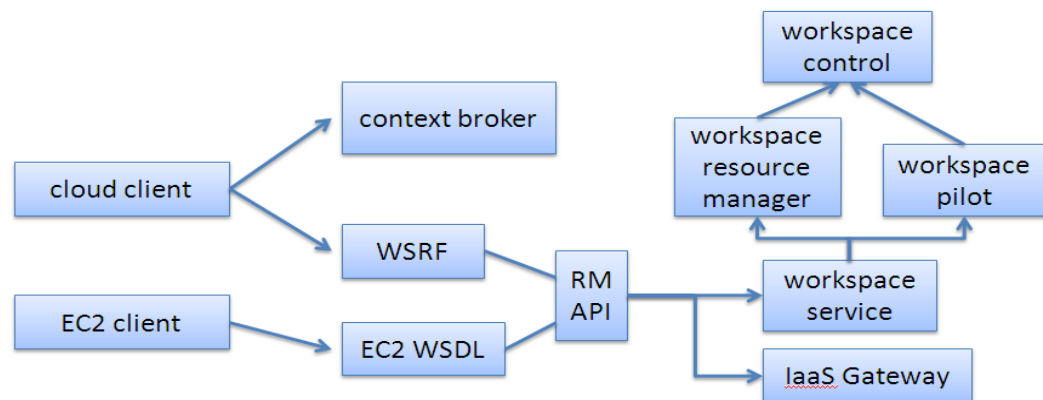


Figure.6 Nimbus Architecture

7.2 Security in Nimbus

Users interested in a strong PKI security model can make use of our web services interface which uses X509 certificates. While the main feature here is strong security, it can also be a great convenience for institutions that are already using DOE certificates or any other certificate authority

8. Future Work and Open Issues

Yet there are other open source cloud providers, but there is need to implement more latest encryption and authentication techniques in order to make the cloud environment secure.

9. Conclusions

Thus in order to move towards private cloud environment the organizations must have to decide which cloud they should utilize. This paper gives the detail features and security measures of different open source famous cloud toolkit which available for private cloud. Each Open Source Toolkit has its own security measures, which should be analyzed by organization before implementing an in-house cloud.

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Some Issues for Women in Cooperative Sector in Iran

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Abstract

Studying about women, the most important issue in Iranian today's society is the issue of women and mainly their authority to work in different sectors, i.e. public, private. This paper aims to study the cooperative sector and women in Iran.

Keywords: Cooperative sector, Iran, Women

1. Introduction

The cooperative sector will continue to play a major role in the development of countries try to be developed or more developed ones. The notion and philosophy of co-operation is to unify the individuals and firms and small or big organizations to come together in a systematic and planned manner to achieve the desired common economic interests ((Noruzi & Westover, 2010). According to Answers (2005) co-operation have a lot of different definitions but here is the one by the Co-operative Planning committee which defines co-operation "as a form of organization in which persons voluntarily associate together on a basis of equality for the promotion of their economic interests" (Answers, 2005). When cooperation founds there should be collective action of participated members and individuals in cooperation to get common goals which may not have been possible for one isolated individual (Answers, 2005; (Noruzi & Westover, 2010).

2. Some definitions of cooperatives

There are many definitions for cooperative and cooperation. It is one of the most important fact that Islam has invited Muslims to do it. According to Novkovic 2008 :

“A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.” (ICA, 1995; Novkovic, 2008)

The ICA also lists co-operative values, as well as personal values of co-operative members:

“Co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity.

In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility, and caring for others.” (ICA, 1995; Novkovic, 2008)

3. Common activities for women in cooperative sector

Islam has never prevented women from working in outside the home but they should obey from specific rules which Islam has explained them. But some jobs may be women have are listed below:

- Loan services in banks, they can establish a loan cooperatives among women and loan themselves.

- Establishing educational offices and institutes, for example English language institutes or other language learning.
- Skill improvement institutes, for example commuter skill learning classes.

4. Iranian Cooperative Sector's Need

All cooperatives need some actions to be survive in today's turbulent market and Iranian co-operations' are not except from this rule

- i. Creating powerful structure for fostering women's cooperative acts.
- ii. Monitoring and supervising the Iranian women established cooperation regularly
- iii. Structuring all Iranian corporations with unified working system for better cooperating
- iv. Participating women members more in cooperation affairs.
- v. Holding workshop for women to foster cooperation among them
- vi. Try to use from successful women in TV programs and seminars
- vii. Accept that women are as essential agents of change and development
- viii. Values the work and contribution of women in all fields on par with those of men
- ix. Admit that women as men can opens many ore doors in economic and political opportunities;
- x. Establishing adequate infrastructure for women cooperation,
- xi. Creating capability to withstand competition,
- xii. Supporting government the women established cooperatives (Vinayagamoorthy, Pithadia, 2007; (Noruzi & Westover, 2010)

5. International Acts for fostering cooperation among women

There is not only Iran but also the other countries should do their best in fostering cooperation morality among women some acts com be as examples:

According to The UNDP Human Development Report-1995 outlines a vision for the 21st century that should build a world order that:

- Creating equal opportunity between women and men
- Eliminates the barriers between men and women and creates an enabling environment for the full productive and creative potential of both
- Promotes more sharing of work and experience between women and men in the workplace as well as in the household;
- solely on merit, without making any distinction;
 - Puts people – both women and men – clearly at the centre of all development processes (Noruzi & Westover, 2010).

The UNDP Report-1995 also states that the GDI [Gender-related Development

Index] ranking can be different in different situations, as is shown by the following conclusions of a recent survey in 2003 so:

- Society should treat its women as well as its men.
- Gender equality should not be depending on the income level of a society.

- Progress should be very fast and organizations should support the fast rate of women established cooperations (Prakash, 2003).

6. Results and Discussions

Iranian organization should use from the women in the cooperation sector suitably and by considering their main rule which the Islam has stated (keeping the bases of family) because as we can understand from the meaning of cooperation (working together) so women should not be taken away from this sector (Noruzi & Westover, 2010).

Iranian cooperative sectors which want to be globalized should note the concept of co-operation emphasizes on the principles of co-operation define the basic characteristics of any co-operative organization in the world. These principles form the common thread that runs through all the co-operative societies which marginal variations (answers, 2005) and Iranian cooperatives can cooperate with other countries cooperative sectors for example Turkey, Azerbaijan and some Arabian countries because of having a common religion for a women based cooperation's.

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Sector-wise Analysis of Working capital Management and Firm Performance in Manufacturing Sector of Pakistan

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Abstract

Working capital management efficiency is imperative for firms specifically in the manufacturing sector. The lack of empirical evidence with reference to sector-wise studies on manufacturing sector of Pakistan provides a strong motivation for examining Working capital management performance on sectoral basis. The present study empirically estimate and compare sector-wise impact of working capital management on performance of manufacturing firms in terms of collection policy, inventory policy, payment policy, Cash Conversion Cycle and Net Trading Cycle using financial data for 204 firms listed on Karachi Stock Exchange classified in 9 sectors during period 1998-2007. The results indicate that there are variations in sectoral performance in terms of different measures of working capital management. There is no consistent behavior of any of the working capital management measure in all of the sectors. In some sectors, some of the measures play their vital role in predicting the profitability while not in others. In case of collection period, only one of the sector synthetic & leather has the significant negative coefficients while in case of inventory turnover in days, four sectors out of nine has significant negative coefficients. These sectors are automobile & engineering, cement & ceramics, sugar & allied and textile sector. If we analyze the average payment period results on sectoral basis, it reveals that coefficient of average payment period is positive and significant only in case of chemical & fertilizer sector. The comparative sectoral coefficients for cash conversion cycle shows that significant negative relationship exists in case of Automobile & Engineering, Chemical & Fertilizer and textile sectors. Other measure of working capital management called as net trade cycle shows similar results as of Cash Conversion Cycle Other variables included in

the model shows that net operating profitability increases with increase in gross working capital turnover ratio, current assets to total assets ratio for almost all sectors. While in some sectors sales growth and size has significant positive impact on profitability. On the other side it decreases with increase in current liabilities to total assets and financial debt ratio and current ratio for some sectors.

Keywords: Manufacturing Sector, Karachi Stock Exchange, Working Capital Management, Cash Conversion Cycle, Net Trade Cycle, Net Operating Profitability, Fixed Effect Model.

1. Introduction

Working Capital is well thought-out to be the life giving force for any economic unit and therefore, its management is categorized among the most important functions of corporate management. Every organization, whether profit oriented or non profit, and irrespective of size and nature of business, requires sufficient amount of working capital for the operations of business (Mukhopadhyay, 2004). The management of such resources is considered as the most critical factor for maintaining liquidity, solvency, continued existence and profitability of business (Siddiquee & Khan, 2009). Furthermore, Shin and Soenen (1998) also emphasized that efficient management of working capital may be important to create value for the shareholders.

Working capital management efficiency is imperative for firms specifically in manufacturing sector, where a major part of assets is composed of current assets²³ (Horne and Wachowitz, 2000). This may therefore, directly affect the profitability and liquidity of firms (Raheman and Nasr, 2007). Kargar and Bluementhal (1994) also point out that firms are likely to fail and may face bankruptcy where working capital management is not given due consideration. Excessive levels of current assets may result in low levels of returns such as return on investment (ROI) for firms. In contrast, firms with lesser amount of current assets might be facing difficulties in maintaining smooth operations (Horne and Wachowicz, 2000).

One of the major functions of manufacturing firms is the production of goods (Kavita, 2009). This function in most firms depends largely on the Working Capital Management. Management of fixed assets falls within the realm of capital budgeting while the management of Working Capital is a continuing function which involves control and flow of financial resources circulating in the firm in one form or the other. Regarding individual items of working capital, Weston and Copeland (1992) explained that, if the forecast of a firm is perfect than it would be holding optimal level of cash required for making payments, adequate inventories²⁴ for meeting the production and sale requirements and the amount of accounts receivable as per the optimal credit policy. An optimal level of holdings of such individual current assets will lead to profit maximization for the firm. However, any of the investment above the optimum level may increase the current assets of the firm without increasing proportionately the profits of the firm. Resultantly the rate of return on investment declines. On the other side Weston & Copeland (1992) also explained that if the investment in current assets falls from a certain level, it may lead to an inability of paying bills on time and may also result in inventory shortage leading to

²³ Manufacturing sector of Pakistan has on average 50.06% current assets in total assets based on manufacturing firms data extracted from their annual report

²⁴ Manufacturing sector of Pakistan has on average 40% inventory value in current assets based on manufacturing firms data extracted from their annual reports.

halting of production activities. It may also lead to loss of sales due to restrictive credit policy by the firm.

Different authors such as (Eljelly, 2004; Smith et al., 1997; Smith, 1980; Walker, 1964; Weston & Brigham, 1975) have addressed this issue of maintaining a trade-off between these two conflicting goals of profitability and liquidity but only gave a general approach to solve the problem. For example Smith (1980) proposed forecasting of liquidity and profitability in an analogous way to maintain a trade-off. Walker (1964) stated that increased investment in working capital is associated with decreased risk of inadequate liquidity, risk of lesser inventory for sales and risk of not granting credit for sales and production. Weston and Brigham (1975) also discussed this trade-off issue and suggested that investment in working capital should be made till the marginal return are more than cost of invested capital. Furthermore, working capital financing should be used instead of long term financing as long as their use does not increase firm's cost of capital. Smith et al. (1997) also emphasized that profitability and liquidity are the most important goals of working capital management.

The lack of empirical evidence with reference to sector-wise studies on manufacturing sector of Pakistan provides a strong motivation for examining Working capital management performance on sectoral basis. Firstly, this study is the first one where sector-wise working capital management performance in terms of average collection policy, inventory policy, payment policy, Cash Conversion Cycle, Net Trade Cycle, liquidity and profitability is compared using financial data for firms listed on Karachi Stock Exchange. Secondly, no other empirical investigation with reference to impact of working capital management on corporate performance on sectoral basis has included such a large sample and time span of ten years as covered in this research. Therefore, the main objectives of the present study are to empirically estimate and compare sector-wise impact of working capital management on performance of manufacturing firms and to find out the similarities and differences between different manufacturing sectors.

The next section of the paper reviews the important Literature related to topic followed by Research Methodology, Results & Discussion and Conclusion.

2. Literature Review

The management of short terms assets falls in the area of Working Capital Management (WCM). WCM is very imperative because it affects the firm's risk, profitability and value (Smith, 1980). Efficiency in working capital management is very important for the manufacturing firms where most of the assets are composed of current assets. Efficient working capital management also increases cash flow to the firms which in turn increase the growth opportunities for the firms and return to the shareholders. Working capital management is a continuous function which is linked to the survival of firms. Firms where working capital management is not given due consideration cannot survive for a longer period.

In developed countries like United States, Canada, England and Australia, it has long been recognized that the efficient management of working capital is critical for prosperity and survival of firms' specially small and medium enterprises (Grablowsky, 1984; McMahan and Holmes, 1991). These researchers indicated that "poor" or "careless" financial management is a major reason of failure for small businesses (Berryman, 1983).

Importance of one of the comprehensive measure of working capital management called as, "Cash Conversion Cycle" was highlighted by Verlyn and Laughlin (1980). They explained that

although working capital management received less attention in the literature than longer-term investment and financing decisions, it occupied the major portion of a financial manager's time and attention.

Most of the empirical studies regarding working capital management and profitability relationship support the traditional belief that reducing current assets proportion in total assets in order to reduce working capital investment, would positively affect the profitability of firm (aggressive policy). Deloof (2003), who analyzed a sample of Belgian firms, and Wang (2002) who analyzed a sample of Japanese and Taiwanese firms, both emphasized that the approach used for managing working capital has a momentous impact on the profitability of firms and increase their profitability by reducing number of days, accounts receivable and reducing inventories. A shorter Cash Conversion Cycle and Net Trade Cycle is related to better performance of firms. Further, efficient working capital management is very important to create the value for shareholders. Shin and Soenen (1998) analyzed a sample of US firms and also has similar type of findings but have used Net Trading Cycle as comprehensive measure of working capital management and found significant negative relationship between NTC and profitability. However, this relationship was not found to be very significant when the analysis was for specific industry (Soenen, 1993). Industry wise analysis was also performed by Jose et al (1996), who measured the ongoing liquidity by Cash Conversion Cycle. Controlling industry and size differences they have concluded that more aggressive liquidity management is associated with higher profitability for several industries.

However, divergent to traditional belief, more investment in working capital (conservative policy) might also increase profitability. When high inventory is maintained, it reduces the cost of interruptions in the production process, decrease in supply cost, protection against price fluctuation and loss of business due to scarcity of products (Blinder and Maccini, 1991). Czyzewski and Hicks (1992) also concluded that firms with the highest return on assets hold higher cash balances but they did not consider liquidity management beyond static cash and assets ratio.

The relationship between Working Capital Management Efficiency and Earning before interest and taxes was examined by Ramachandran and Janakiraman, (2009). They analyzed the paper industry in India during period 1997-98 to 2005-06. The results indicated that the paper industry in India managed the working capital properly. The relationship of Cash Conversion Cycle (a comprehensive measure of working capital management) with firm size and profitability was examined by Uyar, (2009) for firms listed at Istanbul Stock Exchange. The results showed retail/wholesale industry has shorter CCC than manufacturing industries because retail/wholesale industry do not manufacture goods and sell them on cash basis or for very short credit period. Furthermore, they found significant negative correlation between CCC and profitability as well as between CCC and firm size. Another study on the effect of working capital management on firm's profitability with reference to Turkey was presented by Samiloglu and Demirgunes (2008). The quarterly data was collected for a sample of manufacturing firms listed at Istanbul Stock Exchange for the period 1998 to 2007. The results suggest that receivable and inventory period with liquidity has a negative impact on the profitability of the firm while growth is positively associated with profitability. However Cash Conversion Cycle, size and financial assets do not have significant effect on firm's profitability

With reference to small and medium sized Spanish firms, the impact of working capital management on the profitability was empirically tested by Teruel and Solano (2007). The results

suggested that working capital management is very important in case of small and medium sized firms and managers can create value for the shareholders by reducing the inventories level and receivable outstanding days. Further short Cash Conversion Cycle is also associated with improvement in profitability. However their results did not confirm the impact of accounts payable days on profitability because this relation loosed its significance when controlled for endogeneity problem. The relationship of corporate profitability and working capital management was also investigated by Lazaridis & Tryfonidis, (2006) for 131 firms listed in Athens Stock Exchange during period 2001 to 2004. They have reported that there is statistically significant negative relationship between gross operating profitability and the CCC. Furthermore, managers can create profit by properly handling the individual components of working capital which include accounts receivable, inventory and accounts payable to an optimal level.

Lack of empirical evidence on sector-wise working capital management and its impact on the firm performance in case of manufacturing sector of Pakistan is main motivating force to study the subject in more detail. There are few studies with reference to working capital management in Pakistan like Afza and Nazir (2008) investigated the factors determining the working capital requirements for a sample of 204 firms in sixteen manufacturing sub sectors during 1998-2006. Another study by Afza and Nazir (2007) investigated the relationship between aggressive and conservative working capital policies for a sample of 205 firms in 17 sectors listed on Karachi Stock Exchange during 1998-2005. Raheman and Nasr (2007) analyzed the relationship between working capital management and profitability for 94 firms listed on Karachi Stock Exchange using ordinary least square method. Another study on the relationship between working capital management and profitability is by Shah and Sana (2006) using a very small sample of 7 Oil and Gas sector firms to investigate the relationship for period 2001-2005. The results suggested that managers can generate positive return for the shareholders of Oil and Gas firms by managing working capital. Further, working capital management practices explain the changes in firm's profitability.

The above studies indicate that if firms are efficient in their working capital management, they will be more profitable. It implies that there is a negative relationship between measures of working capital management and corporate profitability. The measure of working capital management includes Cash Conversion Cycle and its components. Those components are Average Collection Period, Inventory Turnover in Days and Average Payment Period. The above analysis of different studies identifies that there are no reported studies with reference to manufacturing sector of Pakistan where impact of working capital management on corporate performance is compared on sectoral basis for manufacturing firms listed in Karachi stock exchange. Therefore, in this study the impact of working capital management on corporate performance is estimated and compared for nine groups of sectors and also find out the working capital investment and financing policies followed by different sectors.

3. Research Methodology

The impact of working capital management on corporate performance for nine groups of manufacturing sectors is tested by using panel data. The panel data methodology used has certain benefits like using the assumption that firms are heterogeneous, less multi-collinearity between variables, more informative data, more degree of freedom and more variation in data which results in more efficiency of the estimator (Baltagi, 2001). In addition, panel data allows us to control heterogeneity and generate better predictions and provide micro-foundations for aggregate data analysis (Hsiao, 2003).

3.1 Model Specification

In order to find out the relationship between Net operating profitability and other independent variables for nine groups of manufacturing sectors, first Pearson Correlation Coefficients are calculated. The impact of working capital management on firms' performance for these sectors is investigated using balanced panel data of manufacturing firms listed at Karachi Stock Exchange. For this purpose, we develop an empirical framework first used by Deloof (2003) and subsequent work of Padachi (2006). We specify our models as;

$$NOP_{it} = \beta_0 + \beta_1 (ACP_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \eta_i + \lambda_t + \varepsilon_{it} \text{ ----- (3.1)}$$

$$NOP_{it} = \beta_0 + \beta_1 (ITID_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \eta_i + \lambda_t + \varepsilon_{it} \text{ ----- (3.2)}$$

$$NOP_{it} = \beta_0 + \beta_1 (APP_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \eta_i + \lambda_t + \varepsilon_{it} \text{ ----- (3.3)}$$

$$NOP_{it} = \beta_0 + \beta_1 (CCC_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \eta_i + \lambda_t + \varepsilon_{it} \text{ ----- (3.4)}$$

$$NOP_{it} = \beta_0 + \beta_1 (NTC_{it}) + \beta_2 (GWCTR_{it}) + \beta_3 (CATAR_{it}) + \beta_4 (CLTAR_{it}) + \beta_5 (FDR_{it}) + \beta_6 (LOS_{it}) + \beta_7 (SG_{it}) + \beta_8 (CR_{it}) + \eta_i + \lambda_t + \varepsilon_{it} \text{ ----- (3.5)}$$

In these models, NOP is Net Operating Profitability which is used as a measure of firm's performance. The key variables representing Working Capital Management are ACP, ITID, APP, CCC and NTC of the firm. These five key variables are used in above five equations respectively. It is expected that if we reduce number of days in receivables (ACP), inventory (ITID), Cash Conversion Cycle (CCC) and Net Trade Cycle (NTC), it will enhance the corporate profitability of firms in these sectors. Furthermore, Average Payment Period (APP) is directly associated with profitability. Other explanatory variables typically assumed to affect corporate performance and remain same in all the equations. These variables are GWCTR is the Gross Working Capital Turnover Ratio, CATAR is the Current Assets to Total Assets Ratio and CLTAR is the Current Liabilities to Total Assets Ratio. FDR is Financial Debt Ratio and natural logarithm of sales LOS representing size. SG is Sales growth which represents the investment growth opportunities while CR is Current Ratio to measure liquidity of firm. η_i measures the specific characteristics of each firm called unobservable heterogeneity, whereas λ_t is a parameter for time dummy variables which is equal for all firms in each year but changes over time and ε is the error term.

A classical test for the panel data is one of Random effect model versus fixed effect model (Yafee, 2003). For estimating the models, first we need to determine whether there exists a correlation between the independent variables. If the correlation exists then a fixed effect model will give consistent results otherwise random effect model will be an efficient estimators and it is estimated by generalized least square (Teruel and Solano, 2007). Fixed effects are computed by subtracting the "within" mean from each variable and estimating Panel Least Square using the

transformed data. In fixed effect model, it assumes firm specific intercepts and capture effects of those variables which are specific to each firm and constant over time. In random effect model it is assumed that there is a single common intercept and it varies from firm to firm in a random manner. To determine which of these two models is appropriate, coefficients are estimated by both fixed and random effects. We have used Hausman (1978) test to determine whether fixed or random effect should be used. If the null hypothesis i.e. $E(\eta_i / x_{it}) = 0$ is accepted, then random effect will be an efficient estimator otherwise in case of rejection of null hypothesis, fixed effect estimation will give better or efficient estimation of betas. Hausman test rejects the null hypothesis, therefore decision is taken to use fixed effect model. We have used EVIEWS to estimate the above models.

3.2 Measurement of Variables.

The formula and abbreviations used for measurement of all the variables are presented in the following Table 3.1.

Table No. 3.1: Measurement of Variables and Abbreviation

Variable	Measurement	Abbreviation
Net Operating Profitability	(Earning before Interest and Tax + Depreciation) / Total Assets	NOP
Average Collection Period	Accounts Receivable / Net Sales*365	ACP
Inventory Turnover in Days	Inventory / Cost of Goods Sold*365	ITID
Average Payment Period	Accounts Payable / Purchases*365	APP
Cash Conversion Cycle	ACP +ITID – APP	CCC
Net Trading Cycle	(Accounts Receivable + Inventory – Accounts Payable) / Net Sales*365)	NTC
Gross Working Capital Turnover Ratio	Net sales / Current Asset	GWCTR
Current Assets to Total Assets Ratio	Current assets to Total assets	CATAR
Current Liabilities to Total Assets Ratio	Current Liabilities / Total assets	CLTAR
Financial Debt Ratio	Total Financial Debt / Total Assets	FDR
Size of firm using Log of Sales	Natural Logarithm of Sales	LOS
Sales Growth	(Current year N. sales-Last year N. Sales) / Last year's N. Sales	SG
Current Ratio	Current Assets / Current Liabilities	CR

3.3 Data and Sample.

The data is collected for nine sectors which are grouped on the basis of similar activities performed during period 1998 to 2007. The list of sectors can be seen in the following Table 3.2.

Table 3.2: Grouping of Sectors

S. No.	Sectors	Firms
1	Automobile and Engineering	25
2	Chemical, Pharmaceutical and Fertilizer	25
3	Sugar and Allied	26
4	Textile Sector	58
5	Oil, Gas and Power / Energy Sector	14
6	Food, Vanaspati and PC Products	16
7	Synthetic, Leather and Jute	13
8	Cement and Ceramics	15
9	Paper and Tobacco	12
	Total Firms	204

The data is extracted from the audited annual reports of the firms belonging to different sectors and listed on Karachi Stock Exchange. The data is only collected for those firms which remained listed on the Karachi Stock exchange during the study period i.e. 1998-2007 to form a balanced panel data. The data is collected from stock exchanges, websites of different firms and from the websites of different data maintaining agencies (KHI Stocks, Pak Search and Business recorder).

4. Results and Discussion

Impact of working capital management on performance of manufacturing firms at sectoral level is estimated during the period 1998 – 2007. These sectors include (Automobile and Engineering), (Chemical, Pharmaceutical and Fertilizer), (Sugar and Allied), (Textile Sector), (Energy Sector), (Food Vanaspati and PC Products), (Synthetic Leather & Jute), (Cement & Ceramics) and (Paper & Tobacco). Panel data analysis using fixed effect model is used in order to see the impact of working capital management on manufacturing firms performance on sectoral basis to analyze the similarities and differences.

4.1 Descriptive Analysis

The sector-wise mean values and standard deviation of different variables in the model during the period 1998 to 2007 are presented in the Table 4.1. Manufacturing firms on average has 52 days of Cash Conversion Cycle and 78 days of Net Trade Cycle with standard deviation of 141 and 101 days respectively. The firms have an Average Collection Period of 39 days, Inventory Turnover in Days of 78 days and Average Payment Period of 64 days. The sample firms have on average about 50% of the total assets in current form and sales growth of almost 17% annually while on average 62% of the assets are financed with debt. The higher financial debt ratio of average 62% is attributed to two major sectors having on average highest debt financing which include Textile and Sugar sectors where the debt financing is on average 75% and 72%

respectively. The performance measure used in the analysis is Net Operating Profitability of the firms, which is on average 14% with a standard deviation of 0.12.

The sample firms belong to different sectors and each sector has its own characteristics and policies, therefore, overall manufacturing sector has relatively high standard deviation for almost all the variables. The standard deviation is the highest for Energy sector for almost all the variables. This deviation for the energy sector might be explained as it consists of the firms from Oil & Gas sector, with a good performance in terms of working capital management and power sector firms rated as worst performers.

The individual components of working capital management including Average Collection Period (ACP), Inventory Turnover in Days (ITID) and Average Payment Period (APP) presented in Table 4.1 shows that the energy sector firms grant their customers 92 days for payment which is the longest period while the minimum time to collect money from account receivables is given for the firms in sugar sector. Inventory turnover in days indicate that inventory is stored for the longest time period for synthetic & leather sector and also relatively higher for automobile & engineering, chemical pharmaceutical & fertilizer and food Vanaspati and PC product sectors. ITID also indicates that inventory is stored for the shortest time period in case of energy sector because this sector does not manufacture any item but most of the firms are trading concerns. In case of average payment period, it is the highest for the cement sector and relatively higher for the energy sector. It implies that Energy sector is taking more time to collect amount from receivables and therefore paying late to the suppliers. Average payment period is lowest in case of sugar & allied sector because sugar mills have to purchase the sugarcane for their whole year requirement at one time during the season of sugarcane and have to make quick payments to the sugarcane growers. ACP, ITID and APP are almost same for the paper & tobacco sector.

The three components discussed above, jointly form Cash Conversion Cycle (CCC) and Net Trade Cycle (NTC). Both CCC and NTC almost depict similar type of pattern for different sectors. Cash Conversion Cycle and Net Trade Cycle is the highest in case of Automobile & Engineering sector where CCC is on average 109 days and NTC is 118 days. CCC and NTC are also on higher side for chemical Pharmaceutical & Fertilizer and for Synthetic Jute & Leather sectors. Cash Conversion Cycle is at its minimum level for Cement and energy sectors.

Mean values of Current Assets to Total Assets Ratio (CATAR), Current Liabilities to Total Assets Ratio (CLTAR) and Financial Debt Ratio (FDR) reflects that the highest CATAR is for the Automobile & Engineering sector (0.65). The Cement, Textile and Sugar sectors have the lowest ratio of (0.33), (0.38) and (0.38) respectively. Other sectors have around (0.50) ratio of current assets to total assets. The higher CATAR ratio indicates a lower degree of aggressiveness in working capital investment policy. Current Liabilities to Total Assets Ratio (CLTAR) is highest for Synthetic Jute & Leather sector, followed by the Textile, Sugar and Automobile sectors. The higher ratio of current liabilities to total assets ratio indicates the higher degree of aggressiveness in working capital financing policy. Textile and Sugar sectors have their CLTAR higher than CATAR therefore; both sectors have negative net working capital. Financial Debt Ratio (FDR) shows that the Textile and Sugar sectors have the highest debt utilization i.e. 75% and 72% respectively. Textile and Sugar sectors also have the negative working capital and used major portion of long term debt.

The Current Ratio (CR) and Gross Working Capital Turnover Ratio (GWCTR) for all nine groups of sectors show that Paper & Tobacco has the highest CR followed by the energy sector

whereas; Textile sector has the lowest CR which is less than one. CR for all other sectors ranges between 1.22 to 1.66 times. The GWCTR is highest for the Textile and Sugar sectors while it is lowest for the Synthetic Jute & Leather sector. This ratio tells us that how effectively a firm manages its current assets to generate sales. The mean values for the size measured in terms of natural logarithm of sales in table 4.1 are highest for the Energy and Automobile & Engineering sectors while lowest for Textile, Tobacco and Sugar sector. Similarly sales growth is highest for the Automobile & Engineering sector followed by Cement sector while lowest for chemical and Sugar sectors.

Net Operating Profitability for different sectors reveals that the Food Vanaspati & Personal care product and Paper & Tobacco sectors have the highest profitability while the Sugar, Synthetic & Leather and Textile sectors are laggard in terms of profitability. The Sugar and Textile sectors were also among the laggard sectors in terms of net working capital and with higher debt utilization and lower Current Ratio.

The above descriptive analysis summarizes that Sugar and Textile sectors are facing both liquidity and profitability problems with higher debt ratio, lower Current Ratio and also deficient in terms of profitability. Inventory Turnover in Days is the lowest for the energy sector because this sector does not manufacture items but most of the firms are trading concerns. Energy sector is taking more time to collect amount from receivables and paying late to the suppliers. Average Payment Period is at maximum for the Cement sector and the lowest for Sugar & Allied sector. Cash Conversion Cycle and Net Trade Cycle almost depict similar pattern for different sectors. Cash Conversion Cycle and Net Trade Cycle is the highest for Automobile & Engineering sector.

4.2 Sectoral Correlation Analysis

Sector-wise correlation coefficients between Net Operating Profitability and other variables are presented in Table 4.3. It is observed that in general (overall) Net Operating Profitability is negatively associated with measures of working capital management (Average Collection Period, inventory turnover in days, Average Payment Period, Cash Conversion Cycle and Net Trade Cycle). The correlation coefficients for all the measures of working capital management are significant except for Cash Conversion Cycle.

The comparison of results on sectoral basis between different measures of working capital management reveals that Average Collection Period is negatively associated with Net Operating Profitability for all sectors except Sugar & Allied and Textile sector. The negative relationship is not significant only in case of Synthetic Jute and Leather sector. In case of Textile sector, it is showing significant positive relationship with the profitability while in case of Sugar sector it is although positive but not significant. The strongest negative relationship between NOP and ACP is for the Paper & Tobacco sector. These results show that collecting receipts from customer in shorter time period enhances the firm's profitability. Inventory Turnover in Days (ITID) also has a significant negative association with Net Operating Profitability (NOP). ITID has significant negative relationship with NOP for five sectors and Automobile and Engineering sector is the top one with highest negative relationship. Paper & Tobacco and Energy sector has the significant positive association between NOP and ITID. In general and for most of the sectors, the results indicate that keeping inventory for a lesser time increase profitability for the firms. Therefore efforts must be towards reducing the time period needed to convert inventory into sales.

The results of Average Payment Period (APP) are similar to the above two components of working capital management. There exists negative association between NOP and APP for all the sectors and insignificant only in case of Energy, Food and chemical sector. It indicates that reducing payment time period also increase the profitability which might be due to the reason that less profitable firms wait longer to pay their bills.

The correlation results for Cash Conversion Cycle on sectoral basis reveal that four sectors have negative association between CCC and NOP but significant only in case of two sectors i.e. Automobile & Engineering and Chemical Pharmaceutical & Fertilizer. This indicates that reducing CCC enhances profitability for firms. The CCC has positive relationship with NOP in case of five sectors but significant only incase of Paper & Tobacco sector. This might be possible because longer Cash Conversion Cycle might also increase profitability because it may leads to increase in sales. This positive correlation for CCC is also consistent with the view that resources are blocked at different stages of supply chain therefore increasing CCC. The result of correlation between CCC and NOP for different sectors reveals that this relationship is sensitive to industry factors like product type, its durability, production process, capital intensity, marketing channels and competitive forces.

Another alternative measure of working capital management efficiency is the Net Trade Cycle. The correlation coefficients reflect a negative association of NOP for all the sectors except the Textile sector. In most of the sectors the negative correlation is significant at 5% level of significance. The overall result also indicates a significant negative association between NTC and NOP. It implies that if firms are able to reduce the Net Trade Cycle period, it can enhance the profitability for the firms in turn value creation for the shareholders. Shin & Soenen (1998) also confirmed that a shorter NTC is associated with higher profitability.

The gross working capital turnover has significant positive association with NOP for all the sectors except Food and Textile sectors where it is insignificant. The CATAR and CLTAR are included for analyzing the working capital policies followed in different sectors. The variable CATAR has positive relation ship with profitability for all sectors and significant only for Automobile, Cement and Textile sector while the other variable CLTAR has significant negative association with NOP for all sectors except Energy and Food sector. It indicates that most of the sectors are following conservative working capital management policy.

Current Ratio (CR), one of the traditional measures of liquidity has positive association with NOP in most of the sectors. Although, it has negative association with NOP only for energy and Sugar sectors but insignificant. The results indicate that CCC and NTC are measuring liquidity different from more conventional Current Ratio. In general, the understanding about traditional liquidity ratios like Current Ratio is that it has certain deficiencies in measuring working capital management efficiency of firms. One of the deficiencies is that this ratio incorporates those assets which are not readily convertible to cash and also ignore timing of cash conversion. Financial Debt ratio is included to see the impact of leverage on the profitability. It indicates that there is significant negative relationship between FDR and NOP for all sectors. It implies that increase in debt utilization by the firms in these sectors will put a negative effect on the profitability for those firms. Other two variables sales growth and natural logarithm of sales show a positive relationship with profitability. In case of LOS which represents size, it is significantly correlated with NOP for all sectors while SG is significant only in case of Sugar sector.

The above correlation analysis suggests that the differences exist between different industries. It suggests that both aggressive and conservative working capital management policies exist for different sectors. However, while interpreting the correlations results care must be exercised because these are not reliable indicators of association because it does not consider the correlation of other explanatory variables (Padachi, 2006). Therefore, we are also applying panel data methodology using fixed effect model in the following discussion.

4.3 Empirical Models

There is no single optimal working capital policy which can be applied on all firms because of the presence of industry or sector specific characteristics having an impact on firm's decision on the level of investment in working capital (Moyer et. al. 2003). The analysis includes firms from all manufacturing sectors. It is known that significant sectoral effect exists on a firm's working capital investment. Hawawini et. al. (1986) explained that industry/sector benchmarks exist in industry groups, which needs to be kept in mind while setting working capital investment policy.

Therefore, the impact of working capital management on corporate performance on sectoral basis is estimated using the Panel data methodology to check whether results are sector/industry specific. We have used fixed effect model to take into account the firm specific intercept, which capture the effects of the variables that are particular to each sector and are constant over time. Referring to equations 3.1 to 3.5, models are estimated for nine sectors on the basis of different components of working capital management which include Average Collection Period (ACP), Inventory Turnover in Days (ITID), Average Payment Period (APP), Cash Conversion Cycle (CCC) and Net Trade Cycle (NTC). These measures are considered to be sectoral characteristics and analyzed in this section.

4.3.1 Sector-wise Analysis of Average Collection Policy

Sector-wise regression results for Average Collection Period (ACP) which represent collection policy are presented in Table 4.5. The results of this table helps us to identify the sectoral impact of collection policy on corporate performance opted in different sectors. In this table, Net Operating Profitability is regressed on the Average Collection Period for different sectors. The result indicates that coefficient of Average Collection Period for manufacturing sector is negative but insignificant.

The sectoral results of Average Collection Period indicate that the coefficient of ACP is negative and significant only in case of Synthetic & Leather sector where the p-value is (0.0406). All other sectors with positive and negative signs are not significant resulting in overall insignificant result for manufacturing sector.

The coefficients of other variables included in the model for different sectors reveals certain points which are as follows. The impact of Gross working capital turnover and current assets to total assets ratio on NOP is significant and positive for all the sectors except for Energy sector where it is negative for both variables but insignificant. This might be due to the fact that the energy sector includes firms from Oil & Gas sectors which are among the leading sectors in terms of productivity and working capital efficiency and from Power Generation sector which is the laggard sector in both productivity and working capital management efficiency resulting in insignificant result of energy sector.

Current liabilities to total assets ratio is showing a negative impact on profitability for seven sectors. It means that most of the sectors are following conservative working capital financing policy. Synthetic & Leather sector has the significant positive impact of CLTAR on Net Operating Profitability which indicates higher degree of aggressiveness in working capital financing policy. The Textile sector has insignificant result.

The leverage impact is negative for all sectors except Energy sector. It is significant for five sectors which include Cement, Paper & Tobacco, Sugar, Textile and Synthetic & Leather sectors. The reason might be that highly levered firms in these sectors are soft competitors that will reduce investment (Myers, 2003). Therefore, insufficient Power of competition might leads to decrease in profitability. The size effect on profitability although indicates significant positive impact for overall results but on sectoral basis, it is significant only for Cement and Sugar sector. Current Ratio which is a traditional measure of measuring liquidity has negative impact on profitability in the literature. In our study, we found a positive impact of Current Ratio but not significant. Sectoral result of Current Ratio indicates that it is negatively associated with NOP for four sectors out of nine. There is significant negative impact of Current Ratio on profitability for energy Food and Tobacco sector.

Chemical & Fertilizer sector has the highest adjusted R-square (77.69%). The lowest values of these R-square and adjusted R-squares are for the Textile sector where these values are (35.76%) and (27.64%) respectively. The adjusted R-square for the rest of the sectors ranges between 60 to 74%. The F statistics is significant for all the sectors and for the overall manufacturing sector.

4.3.2 Sector-wise Analysis of Inventory Policy

In Table 4.6 regression models are estimated using fixed effect model for all sectors where we have same independent variables except for substitution of Average Collection Period with inventory turnover in days. There exists significant negative relationship between Net Operating Profitability and Inventory Turnover in Days ($P\text{-value} = 0.0000$) for the manufacturing sector. This implies that profitability can be improved by reducing the inventory turnover in days. It also means that by keeping inventory for lesser time can improve profitability of firm. The estimated equation for Inventory Turnover in Days for different sectors reflects that Automobile, Cement, Sugar and Textile sector has significant negative impact of ITID on Net Operating Profitability.

These significant results for sectors gave an overall significant impact of Inventory Turnover in Days on NOP for the manufacturing sector. Other sectors have negative but insignificant relationship except for Food & Vanaspati sector, where a significant positive association is found between ITID and NOP.

The rest of the independent variables included in the equation are similar to one calculated using Average Collection Period for different sectors. The results and significance of these variables which include GWCTR, CATAR, CLTAR, FDR, LOS, SG and CR are also similar to ones found in the table 6.5. The F-statistics is also significant in all equations of different sectors.

4.3.3 Sector-wise Analysis of Average Payment Policy

The results of Average Payment Period model as a measure of working capital policy with other independent variables are presented in Table 4.7. The coefficient of Average Payment Period is positive but insignificant for the manufacturing sector. If we analyze the Average Payment

Period results on sectoral basis, it reveals that six out of nine sectors are having their APP coefficient positive but significant only in case of chemical & Fertilizer sector (P-value 0.0264) and Automobile & Engineering sector (P-value 0.0972) significant at 0.10 level of significance. It implies that lengthening the payment period increases profitability. This significant positive result for both sectors does make economic sense because longer a firm takes time to make payments to credit suppliers, the higher level of working capital it reserves and is used to improve profitability. There is also a significant negative impact of APP on the Net Operating Profitability in case of Sugar and Allied sector where the p-value is (0.0496). It means that for Sugar sector increasing payment time period reduces profitability for the firms. It might be possible as less profitable firms wait longer to pay their bills.

Other independent variables have similar type of relationship with the NOP for different sector as in the previous table except Paper and Tobacco sector for financial debt ratio. It shows significant negative impact on profitability in this model. The size which is represented with natural logarithm of sales is also showing significant positive relationship with NOP in case of Cement sector which was insignificant in the previous table. R-square and adjusted R-square are depicting a similar pattern for different sectors as in the previous two tables. The F-statistics is also significant for all sectors but lowest value is for the Textile sector.

4.3.4 Sector-wise Analysis of Cash Conversion Cycle

Cash Conversion Cycle, a comprehensive measure of working capital Management with other variables is included in Table 4.8. The results provide a strong evidence of negative impact of Cash Conversion Cycle on corporate profitability for the manufacturing sector where the coefficient is negative and highly significant. It is consistent with the view that decreasing the Cash Conversion Cycle will generate more profits for the company. It also implies that firms can create value for their shareholders by keeping the Cash Conversion Cycle to minimum.

The comparative sectoral coefficients for Cash Conversion Cycle shows that seven out of nine sectors have negative coefficients but significant in case of Automobile & Engineering, Chemical & Fertilizer and Textile sectors. There are two sectors where the coefficient is positive but not significant. Therefore it indicates that if the firms in different sectors are able to reduce this time period, it will enhance their profitability and will also create value for shareholders.

Other independent variables depict similar type of results for different sectors as shown in the previous three tables. There significance almost remains same in all regression models. There is a minor difference in the coefficient value and also in the level of significance but the overall results remain the same. The value of R-square varies between 65 to 81% for all sectors except Textile sector where it is 37%. Similarly adjusted R-square ranges between 60 to 78% except Textile sector with 29%. F-statistics is significant in all sectors but lowest value is for the Textile sector.

4.3.5 Sector-wise Analysis of Net Trade Cycle

We have included Net Trade Cycle instead of Cash Conversion Cycle in the model presented in Table 4.9, while all other variables are same as in the previous equations. The overall result of this equation provides a strong evidence of negative relationship between Net Trade Cycle and profitability of firms as the coefficient of NTC is negative and highly significant. It implies that a

firm with relatively shorter NTC is more profitable. All other variables have similar type of results as in the previous equations.

These results show that six out of nine sectors have their NTC coefficient negative while it is significant for Cement, chemical & Fertilizer, Sugar and Textile sector. Three sectors are with the positive coefficient but all are insignificant. These sectors are energy, Food and Synthetic & Leather. Therefore it implies that reducing Net Trade Cycle days enhance profitability for different manufacturing sectors. If firms in different manufacturing industries / sectors want to enhance their profitability they would need to give importance to reducing the length of Net Trade Cycle as well. Soenen (1993) also conducted a study on sectoral basis but did not find a consistent relationship between NTC and return on assets for different industries. As this relationship varies from positive to negative for different industries which identified the industry effects. Another study by Kmath, (1989) also reported an inverse relationship between NTC and corporate profitability in retail grocery industry but these findings did not hold true for every year of study

Other variables included in the model shows that Net Operating Profitability increases with increase in gross working capital turnover ratio, current assets to total assets ratio for almost all sectors. While in some sectors sales growth and size of the firms measured by natural logarithm of sales has significant positive impact on profitability. On the other side it decreases with increase in current liabilities to total assets and financial debt ratio and Current Ratio for some sectors.

The results of all models suggest that managers can increase the profitability by reducing the Cash Conversion Cycle, Net Trading Cycle, Average Collection Period and Inventory Turnover in Days. Further increase in the size, sales growth and decrease in the debt ratio can also lead to increase profitability. The adjusted R-Square in all models is between 60 to 79% in all the above tables for all sectors except Textile sector which ranges between 26 to 31%. F-statistics is also significant for all sectors and Textile with the lowest value. The R-Square and adjusted R-square which was round 50 to 53% in case of OLS improved to 76 to 82% in case of fixed effect model except Textile sector. In the fixed effect model using firm specific intercept improves the explanatory Power of the models.

5 Conclusions

The contribution of manufacturing sector, which is the second largest sector of our economy, plays a significant role in the economic growth of Pakistan hence; this sector needs to be analyzed at industry as well as at firm level. The firm level study is also important because the performance and financial position of manufacturing firms is a major determinant of financial stability of this sector. In this perspective, the main objectives of the study were to empirically analyze and compare the impact of working capital management on performance of manufacturing firms classified into different sectors and listed at Karachi Stock Exchange using panel data.

These results indicate that there are variations in sectoral performance in terms of different measures of working capital management. There is no consistent behavior of any of the working capital management measure in all of the sectors. The results vary from sector to sector. In some sectors, some of the measures play their vital role in predicting the profitability while not in others. In case of average collection period, only one of the sector synthetic & leather has the

significant negative coefficients while in case of inventory turnover in days, four sectors out of nine has significant negative coefficients. These sectors are automobile & engineering, cement & ceramics, sugar & allied and textile sector. If we analyze the average payment period results on sectoral basis, it reveals that coefficient of average payment period is positive and significant only in case of chemical & fertilizer sector. The comparative sectoral coefficients for cash conversion cycle shows that significant negative relationship exists in case of Automobile & Engineering, Chemical & Fertilizer and textile sectors. Other measure of working capital management called as net trade cycle shows similar results. There exists significant negative impact of NTC on NOP in case of cement, chemical & fertilizer, sugar and textile sector. Other variables included in the model shows that net operating profitability increases with increase in gross working capital turnover ratio, current assets to total assets ratio for almost all sectors. While in some sectors sales growth and size of the firms measured by natural logarithm of sales has significant positive impact on profitability. On the other side it decreases with increase in current liabilities to total assets and financial debt ratio and current ratio for some sectors.

Theoretically, it is found that there exist a negative relationship between liquidity and profitability of the firms; therefore, the measures of liquidity, Current Ratio should have negative association with the profitability. However, empirical researches have found both positive and negative association between current ratio and profitability. Similarly, in our research negative relationship is not proven between current ratio and net operating profitability. Furthermore, we also found that CCC and NTC measures the liquidity different form conventional Current Ratio.

Based on the results of the present study we conclude that working capital management should be the concern of all the manufacturing sectors and need to be given due importance however, the Cable & Electric Goods, Engineering, Leather & Tanneries, Pharmaceutical, Glass and Ceramics sectors need to pay more attention to all the aspects of working capital management issues, especially the inventory conversion period and collection period. Since proper management of inventory and collection from receivables by the firms in these sectors can convert these laggard sectors into better performers. It should also be noted that sectors which are dominating in terms of working capital management are mainly due to proper inventory management. Therefore, the management of manufacturing sub-sectors should properly plan and execute their inventory procurement, handling and utilization.

The collection and payment policies of the firms in manufacturing sectors, in general, need to be thoroughly reviewed. It is generally argued that firms need to accelerate their cash collections and slowdown their payments. This can only be possible with some professional advice and supervision. Furthermore, significant Sectoral or industry effects exist on a firm's investment in working capital which must also be kept in mind while formulating working capital investment policies.

Textile sector, being the largest sector in terms of size needs special attention by the policy makers. The Textile Composite and Textile Spinning sectors need to formulate policies for all areas of working capital management including collection, inventory and payment policies. However, Textile Weaving sector firms should pay special attention in the collection and payment policies. Power generation sector, where no inventory or goods are manufactured needs to emphasize more on the collection and payment policies.

The findings of the study indicate that firm managers/executives can enhance performance of the firms by reducing the number of days in inventories, Cash Conversion Cycle and Net Trade

Cycle to a reasonable minimum. This is only possible if the components of Cash Conversion Cycle and Net Trade Cycle (ACP, ITID and APP) may be dealt individually and an optimal / effective policy is formulated for these components. Furthermore, efficient Management and financing of working capital (current assets and current liabilities) can increase the operating profitability of manufacturing firms.

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Table 4.1: Descriptive Statistics of Variables for different Manufacturing Sectors

Variables		Auto & Eng.	Cement & Ceramics	Che. Phar & Fertilizer	Energy	Food Van & PC Pro.	Paper & Tobacco	Sugar Sector	Synt.Jute & Leath	Textile Sector	Manufacturing Sector
	N	250	150	250	140	160	120	260	130	580	2040
ACP(in days)	Mean	49	34	54	92	21	57	8	30	33	39
	S.D	(56)	(43)	(55)	(113)	(22)	(70)	(15)	(26)	(34)	(58)
APP(in days)	Mean	45	126	64	105	49	59	35	67	57	64
	S.D	(71)	(108)	(71)	(147)	(101)	(96)	(38)	(62)	(96)	(103)
ITID(in days)	Mean	106	60	100	21	87	57	66	126	70	78
	S.D	(78)	(72)	(79)	(25)	(43)	(42)	(71)	(82)	(70)	(78)
CCC(in days)	Mean	109	22	90	8	58	55	38	89	45	52
	S.D	(97)	(151)	(141)	(193)	(112)	(92)	(80)	(76)	(106)	(141)
NTC(in days)	Mean	118	36	104	62	69	82	42	111	65	78
	S.D	(104)	(86)	(102)	(135)	(41)	(70)	(70)	(110)	(98)	(101)
CATAR(ratio)	Mean	0.65	0.33	0.55	0.52	0.6	0.48	0.38	0.57	0.38	0.48
	S.D	(0.2)	(0.19)	(0.21)	(0.24)	(0.17)	(0.2)	(0.17)	(0.23)	(0.16)	(0.22)
CLTAR(ratio)	Mean	0.48	0.32	0.39	0.42	0.45	0.33	0.49	0.52	0.48	0.45
	S.D	(0.17)	(0.2)	(0.16)	(0.26)	(0.17)	(0.21)	(0.36)	(0.32)	(0.29)	(0.26)
CR(ratio)	Mean	1.53	1.22	1.66	1.83	1.48	1.9	1.34	1.34	0.9	1.35
	S.D	(0.83)	(0.73)	(1.09)	(2.17)	(0.610)	(1.29)	(2.35)	(0.77)	(0.39)	(1.27)
FDR(ratio)	Mean	0.56	0.52	0.48	0.53	0.52	0.49	0.72	0.64	0.75	0.62
	S.D	(0.2)	(0.25)	(0.18)	(0.28)	(0.21)	(0.6)	(0.5)	(0.34)	(0.41)	(0.38)
GWCTR(ratio)	Mean	2.07	2.35	2.11	2.95	3.24	2.93	3.57	1.92	3.61	2.92
	S.D	(0.96)	(1.1)	(1.04)	(2.26)	(1.36)	(1.95)	(2.44)	(0.91)	(2.49)	(2.02)
LOS(ln)	Mean	21.08	20.72	20.78	22.98	20.78	20.58	20.62	20.84	20.37	20.82
	S.D	(1.62)	(0.91)	(1.9)	(2.17)	(1.27)	(1.89)	(0.74)	(1.72)	(1.07)	(1.57)
SG	Mean	0.32	0.26	0.11	0.19	0.14	0.13	0.12	0.2	0.14	0.17
	S.D	(0.95)	(1.2)	(0.29)	(0.61)	(0.3)	(0.37)	(0.45)	(1.47)	(0.63)	(0.74)
NOP	Mean	0.16	0.14	0.17	0.13	0.21	0.18	0.1	0.1	0.11	0.14
	S.D	(0.11)	(0.11)	(0.11)	(0.11)	(0.13)	(0.12)	(0.11)	(0.11)	(0.12)	(0.12)

Standard Deviations are shown in parenthesis

Table 4.2: Sector-wise Correlation Coefficients of NOP and other Variables

		Automobile & Engineering	Cement & Ceramics	Chemical, Pharma & Fertilizer	Energy	Food, Vanaspati & PC product	Paper & Tobacco	Sugar & Allied	Synthetic, Jute & Leather	Textile
		NOP	NOP	NOP	NOP	NOP	NOP	NOP	NOP	NOP
	N	250	150	250	140	160	120	260	130	580
ACP	Pearson Correlation	-.353**	-.177*	-.382**	-.324**	-.143	-.455**	.044	-.018	.089*
	Sig. (2-tailed)	.000	.031	.000	.000	.072	.000	.478	.843	.031
ITID	Pearson Correlation	-.467**	-.265**	-.327**	.281**	.123	.200*	-.217**	-.042	-.173**
	Sig. (2-tailed)	.000	.001	.000	.001	.122	.029	.000	.632	.000
APP	Pearson Correlation	-.337**	-.263**	-.075	-.145	-.032	-.532**	-.298**	-.176*	-.178**
	Sig. (2-tailed)	.000	.001	.239	.087	.685	.000	.000	.045	.000
CCC	Pearson Correlation	-.334**	.012	-.295**	-.043	.048	.302**	-.040	.092	.075
	Sig. (2-tailed)	.000	.885	.000	.610	.544	.001	.521	.296	.072
NTC	Pearson Correlation	-.486**	-.259**	-.417**	-.149	-.042	-.184*	-.090	-.101	.010
	Sig. (2-tailed)	.000	.001	.000	.079	.600	.044	.148	.252	.810
CR	Pearson Correlation	.418**	.513**	.188**	-.141	.110	.247**	-.115	.452**	.141**
	Sig. (2-tailed)	.000	.000	.003	.097	.167	.007	.064	.000	.001
CATAR	Pearson Correlation	.416**	.213**	.041	.048	.110	.106	.005	.138	.232**
	Sig. (2-tailed)	.000	.009	.521	.571	.165	.248	.930	.118	.000
CLTAR	Pearson Correlation	-.175**	-.268**	-.227**	-.132	-.055	-.287**	-.265**	-.341**	-.081
	Sig. (2-tailed)	.006	.001	.000	.119	.489	.001	.000	.000	.053
FDR	Pearson Correlation	-.465**	-.459**	-.433**	-.243**	-.207**	-.283**	-.307**	-.471**	-.245**
	Sig. (2-tailed)	.000	.000	.000	.004	.009	.002	.000	.000	.000
LOS	Pearson Correlation	.386**	.134	.466**	.159	.510**	.513**	.503**	.526**	.205**
	Sig. (2-tailed)	.000	.102	.000	.060	.000	.000	.000	.000	.000
SG	Pearson Correlation	.061	.046	.077	.141	.129	-.015	.311**	.039	.065
	Sig. (2-tailed)	.338	.579	.225	.097	.105	.869	.000	.658	.116
GWCTR	Pearson Correlation	.495**	.216**	.351**	.212*	.093	.488**	.296**	.436**	.046
	Sig. (2-tailed)	.000	.008	.000	.012	.244	.000	.000	.000	.274

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4.3: Sector-wise Average Collection Period Regression Results (1998-2007)

Dependent Variable : Net Operating Profitability										
Regression	Fixed Effect model									
	Auto & Engineering	Cement & Ceramics	Chemical Fert &	Energy Sector	Food Vana. & PC prod.	Paper & Tobacco	Sugar and Allied	Synthetic Jute & Leather	Textile	Overall
C	-0.29471	-0.45157	-0.24917	-0.05796	-0.41299	-0.27887	-0.91000	0.01057	0.24487	-0.30114
	(0.0362)	(0.0206)	(0.1736)	(0.8407)	(0.176)	(0.4841)	(0.0071)	(0.9626)	(0.3073)	(0.0001)
ACP	-7.75E-06	0.00023	-0.00011	0.00024	0.00041	-8.03E-05	-0.00032	-0.00082	0.00014	0.00002
	(0.9609)	(0.4608)	(0.4766)	(0.0600)	(0.3069)	(0.6446)	(0.3608)	(0.0406)	(0.5294)	(0.8153)
GWCTR	0.05421	0.03253	0.03646	-0.00152	0.06212	0.01945	0.03128	0.05133	0.01575	0.02207
	(0.0000)	(0.0013)	(0.0000)	(0.8166)	(0.0000)	(0.0178)	(0.0000)	(0.0005)	(0.0000)	(0.0000)
CATAR	0.22836	0.46840	0.39268	-0.03623	0.73116	0.48297	0.35847	0.12900	0.24037	0.24284
	(0.0002)	(0.0000)	(0.0000)	(0.5792)	(0.0000)	(0.0000)	(0.0000)	(0.1754)	(0.0002)	(0.0000)
CLTAR	-0.06283	-0.08064	-0.03802	-0.20366	-0.43299	-0.53200	-0.04298	0.13787	0.00680	-0.03610
	(0.3605)	(0.3668)	(0.5767)	(0.0079)	(0.0044)	(0.0000)	(0.2517)	(0.0220)	(0.8202)	(0.0132)
FDR	-0.02817	-0.17121	-0.08287	0.03719	-0.09981	-0.02816	-0.08786	-0.2085	-0.08099	-0.06347
	(0.5504)	(0.0014)	(0.1609)	(0.5206)	(0.1186)	(0.0801)	(0.0074)	(0.0000)	(0.0004)	(0.0000)
LOS	0.01019	0.02229	0.00811	0.01154	0.01882	0.02060	0.04114	-0.00263	-0.01109	0.01484
	(0.1543)	(0.0170)	(0.3624)	(0.3738)	(0.2054)	(0.2702)	(0.0126)	(0.8257)	(0.3478)	(0.0001)
SG	0.00131	0.01168	-0.00766	0.01252	0.02793	0.02148	0.01624	0.01123	0.01109	0.00912
	(0.7821)	(0.0158)	(0.5483)	(0.2272)	(0.2271)	(0.2754)	(0.2221)	(0.0084)	(0.1390)	(0.0005)
CR	0.01332	0.00380	0.01215	-0.00937	-0.11749	-0.03249	0.00544	0.03900	-0.00370	0.00159
	(0.1701)	(0.8489)	(0.0571)	(0.0086)	(0.0008)	(0.0023)	(0.6950)	(0.0043)	(0.8643)	(0.5361)
R-Square	0.7069	0.6858	0.8055	0.6698	0.7091	0.7546	0.6584	0.7789	0.3576	0.5985
Adj. R-Squ	0.6636	0.6313	0.7769	0.6110	0.6599	0.7080	0.6074	0.7383	0.2764	0.5522
Fstatistics	16.35	12.59	28.09	11.40	14.41	16.18	12.93	19.20	4.40	12.91
Prob(F-sta)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
No. of Obs.	250	150	250	140	160	120	260	130	580	2040

The *P-values* are shown in parentheses.

Table 4.4: Sector-wise Inventory Turnover in Days Regression Results (1998-2007)

Dependent Variable : Net Operating Profitability										
Regression Model	Fixed Effect model									
	Auto & Engineering	Cement & Ceramics	Chemical Fert &	Energy Sector	Food Vanasp. &PC product	Paper and Tobacco	Sugar and Allied	Synthetic Jute & Leather	Textile	Overall
C	-0.15056 (0.3022)	-0.23059 (0.2774)	-0.19892 (0.3045)	0.15185 (0.6234)	-0.60616 (0.0441)	-0.34625 (0.3373)	-0.77654 (0.022)	0.16563 (0.4591)	0.22501 (0.3308)	-0.18819 (0.0142)
ITID	-0.00023 (0.0122)	-0.00042 (0.0373)	-0.00003 (0.7790)	-0.00036 (0.2845)	0.00083 (0.0038)	-0.00026 (0.4098)	-0.00019 (0.0324)	0.00012 (0.3966)	-0.00059 (0.0000)	-0.00031 (0.0000)
GWCTR	0.04566 (0.0000)	0.02360 (0.0205)	0.03731 (0.0000)	-0.00299 (0.6506)	0.07177 (0.0000)	0.01758 (0.0400)	0.02904 (0.0000)	0.06660 (0.0000)	0.00977 (0.0010)	0.01797 (0.0000)
CATAR	0.24397 (0.0001)	0.44122 (0.0001)	0.38742 (0.0000)	-0.01470 (0.8201)	0.74486 (0.0000)	0.46548 (0.0000)	0.37664 (0.0000)	0.10984 (0.2569)	0.25178 (0.0000)	0.23769 (0.0000)
CLTAR	-0.10668 (0.1206)	-0.08148 (0.3546)	-0.04980 (0.4490)	-0.21143 (0.0063)	-0.45059 (0.0023)	-0.51967 (0.0000)	-0.04301 (0.2471)	0.12980 (0.0336)	0.00049 (0.9867)	0.01436 (0.0097)
FDR	-0.00886 (0.8495)	-0.17188 (0.0011)	-0.08043 (0.1782)	0.04403 (0.4521)	-0.08122 (0.1879)	-0.02691 (0.0954)	-0.08330 (0.0103)	-0.22645 (0.0000)	-0.06419 (0.0043)	-0.05756 (0.0000)
LOS	0.00549 (0.4469)	0.01462 (0.1362)	0.00571 (0.5219)	0.00345 (0.7999)	0.02191 (0.1244)	0.02468 (0.1487)	0.03515 (0.0332)	-0.01210 (0.3213)	-0.00733 (0.5216)	0.01113 (0.0027)
SG	0.00154 (0.7404)	0.00819 (0.104)	-0.00639 (0.6126)	0.00987 (0.3433)	0.02605 (0.2466)	0.02172 (0.2641)	0.01715 (0.1933)	0.01113 (0.0102)	0.01073 (0.1415)	0.00847 (0.0011)
CR	0.01095 (0.2464)	0.00579 (0.7684)	0.01252 (0.0507)	-0.00987 (0.0063)	-0.10088 (0.0032)	-0.03111 (0.0039)	0.00442 (0.7469)	0.03882 (0.0051)	-0.00713 (0.7356)	0.00214 (0.4003)
R-Square	0.7152	0.6950	0.8051	0.6630	0.7245	0.7557	0.6645	0.7717	0.3902	0.6086
Adj. R-Sq.	0.6732	0.6422	0.7764	0.6030	0.6779	0.7093	0.6145	0.7298	0.3131	0.5634
F statistics	17.03	13.16	28.02	11.05	15.55	16.28	13.29	18.42	5.06	13.47
Prob(F-sta)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
No. of Obs.	250	150	250	140	160	120	260	130	580	2040

The *P-values* are shown in parentheses.

Table 4.5: Sector-wise Average Payment Period Regression Results (1998-2007)

Dependent Variable : Net Operating Profitability										
Regression Model	Fixed Effect model									
	Auto & Engineering	Cement & Ceramics	Chemical Fert &	Energy Sector	Food Vanasp. & PC prod.	Paper and Tobacco	Sugar and Allied	Synthetic Jute & Leather	Textile	Overall
C	-0.33586 (0.0149)	-0.43316 (0.0254)	-0.35076 (0.0600)	-0.03157 (0.9131)	-0.32786 (0.2633)	-0.20439 (0.5889)	-0.77946 (0.0220)	0.13299 (0.5481)	0.25296 (0.3026)	-0.3158 (0.0000)
APP	0.00016 (0.0972)	0.00004 (0.9579)	0.00018 (0.0264)	0.00016 (0.1377)	0.00003 (0.7570)	-0.00016 (0.2086)	-0.00035 (0.0496)	0.00009 (0.5646)	0.00002 (0.8254)	0.00008 (0.2267)
GWCTR	0.05724 (0.0000)	0.03087 (0.0021)	0.04156 (0.0000)	-0.00149 (0.8215)	0.05812 (0.0000)	0.01849 (0.0236)	0.02962 (0.0000)	0.06232 (0.0000)	0.01566 (0.0000)	0.02239 (0.0000)
CATAR	0.23943 (0.0001)	0.45807 (0.0001)	0.40106 (0.0000)	0.01480 (0.8234)	0.71612 (0.0000)	0.45968 (0.0000)	0.31863 (0.0000)	0.10909 (0.2693)	0.25019 (0.0001)	0.24793 (0.0000)
CLTAR	-0.05488 (0.4125)	-0.07862 (0.3838)	-0.05453 (0.3985)	-0.21033 (0.0064)	-0.41716 (0.0060)	-0.51511 (0.0000)	-0.0488 (0.1913)	0.10919 (0.0964)	0.00696 (0.8161)	-0.03840 (0.0089)
FDR	-0.03845 (0.4119)	-0.17192 (0.0014)	-0.06497 (0.2641)	0.02900 (0.6284)	-0.08929 (0.1615)	-0.03045 (0.0582)	-0.06316 (0.0670)	-0.21191 (0.0001)	-0.08130 (0.0005)	-0.06398 (0.0000)
LOS	0.01125 (0.1113)	0.02208 (0.0192)	0.01109 (0.2051)	0.00978 (0.4508)	0.01549 (0.2854)	0.01766 (0.3183)	0.03548 (0.0320)	-0.00953 (0.4169)	-0.01150 (0.3378)	0.01536 (0.0000)
SG	0.00131 (0.7803)	0.01123 (0.0230)	-0.00495 (0.6908)	0.01136 (0.2740)	0.02701 (0.2441)	0.01395 (0.4970)	0.02113 (0.1173)	0.01062 (0.0156)	0.01107 (0.1418)	0.00904 (0.0006)
CR	0.01321 (0.1634)	0.00429 (0.8316)	0.01470 (0.0218)	-0.00947 (0.0082)	-0.11493 (0.0012)	-0.03179 (0.0026)	0.00736 (0.5902)	0.03779 (0.0071)	-0.00314 (0.8850)	0.00155 (0.5455)
R-Square	0.7106	0.6844	0.8095	0.6660	0.7071	0.7579	0.6633	0.77089	0.3572	0.5988
Adj. R-Sq.	0.6678	0.6297	0.7813	0.6066	0.6575	0.7119	0.6131	0.7288	0.2759	0.5525
Fstatistics	16.64	12.51	28.80	11.20	14.27	16.48	13.21	18.33	4.39	12.93
Prob(F-sta)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
No. of Obs.	250	150	250	140	160	120	260	130	580	2040

The *P-values* are shown in parentheses.

Table 4.6: Sector-wise Cash Conversion Cycle Regression Results (1998-2007)

Dependent Variable :		Net Operating Profitability								
Regression Model		Fixed Effect model								
	Auto & Engineering	Cement & Ceramics	Chemical Fert &	Energy Sector	Food Vanaspati and PC product	Paper and Tobacco	Sugar and Allied	Synthetic Jute & Leather	Textile	Overall
C	-0.17224 (0.2154)	-0.40308 (0.0424)	-0.24603 (0.1651)	0.03662 (0.8997)	-0.43004 (0.1515)	-0.36127 (0.3175)	-0.87172 (0.0099)	0.12021 (0.5965)	0.11020 (0.6452)	-0.30268 (0.0001)
CCC	-0.00021 (0.0022)	-0.00005 (0.5141)	-0.00013 (0.0333)	-0.00002 (0.8399)	0.00014 (0.1424)	0.00007 (0.5646)	-0.00010 (0.2018)	-0.00004 (0.7424)	-0.00025 (0.0008)	-0.00018 (0.0000)
GWCTR	0.04881 (0.0000)	0.03081 (0.0017)	0.03536 (0.0000)	-0.00247 (0.7088)	0.06084 (0.0000)	0.02009 (0.0143)	0.03062 (0.0000)	0.05983 (0.0001)	0.01423 (0.0000)	0.020915 (0.0000)
CATAR	0.26556 (0.0000)	0.44940 (0.0001)	0.37977 (0.0000)	-0.00531 (0.9388)	0.72434 (0.0000)	0.48907 (0.0000)	0.37626 (0.0000)	0.09715 (0.3102)	0.28989 (0.0000)	0.245561 (0.0000)
CLTAR	-0.11107 (0.1015)	-0.07162 (0.4267)	-0.02725 (0.6779)	-0.21178 (0.0065)	-0.42319 (0.005)	-0.53809 (0.0000)	-0.04137 (0.2692)	0.11641 (0.0721)	0.00439 (0.8819)	-0.04238 (0.0034)
FDR	-0.01556 (0.7348)	-0.16933 (0.0016)	-0.09037 (0.1216)	0.05201 (0.3789)	-0.08547 (0.1759)	-0.03003 (0.0659)	-0.09198 (0.0054)	-0.21191 (0.0001)	-0.08358 (0.0002)	-0.06255 (0.0000)
LOS	0.00590 (0.4028)	0.02044 (0.0346)	0.00846 (0.322)	0.00766 (0.559)	0.01868 (0.1998)	0.02417 (0.1574)	0.03930 (0.0171)	-0.00814 (0.5038)	-0.00435 (0.7126)	0.015187 (0.0000)
SG	0.00159 (0.3612)	0.01060 (0.0344)	-0.00833 (0.5048)	0.01029 (0.3249)	0.02730 (0.2354)	0.0205 (0.3023)	0.01503 (0.2568)	0.01084 (0.0133)	0.00911 (0.2207)	0.008726 (0.0008)
CR	0.00863 (0.7309)	0.00619 (0.7594)	0.01452 (0.0234)	-0.00961 (0.0079)	-0.10631 (0.0027)	-0.03335 (0.0017)	0.00499 (0.718)	0.03848 (0.0059)	-0.00011 (0.9958)	0.001965 (0.441)
R-Square	0.7193	0.6854	0.8091	0.6598	0.7114	0.7548	0.6596	0.7704	0.3709	0.6052
Adj R-Squ	0.6779	0.6310	0.7810	0.5992	0.6626	0.7083	0.6089	0.7282	0.2914	0.5596
Fstatistics	17.38	12.58	28.74	10.89	14.58	16.20	13.00	18.28	4.66	13.28
Prob(F-sta)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
No. of Obs.	250	150	250	140	160	120	260	130	580	2040

The *P-values* are shown in parentheses.

Table 4.7: Sector-wise Net Trade Cycle Regression Results (1998-2007)

Dependent Variable :		Net Operating Profitability								
Regression Model		Fixed Effect model								
	Auto & Engineering	Cement & Ceramics	Chemical Fert &	Energy Sector	Food Vanaspati and PC product	Paper and Tobacco	Sugar and Allied	Synthetic Jute & Leather	Textile	Overall
C	-0.23483 (0.1118)	-0.22682 (0.2942)	-0.17473 (0.3243)	0.029446 (0.9195)	-0.3207 (0.3373)	-0.30584 (0.4208)	-0.83512 (0.0126)	0.051824 (0.8327)	0.244202 (0.2985)	-0.33548 (0.00000)
NTC	-7.90E-05 (0.2872)	-0.00034 (0.0494)	-0.00022 (0.0191)	1.67E-06 (0.9867)	4.42E-08 (0.9999)	-6.16E-05 (0.6654)	-0.00022 (0.0186)	5.47E-05 (0.4275)	-0.00024 (0.0007)	-0.00016 (0.00000)
GWCTR	0.05143 (0.0000)	0.025718 (0.0099)	0.032852 (0.00000)	-0.00249 (0.7072)	0.058407 (0.00000)	0.019085 (0.0219)	0.029609 (0.00000)	0.064386 (0.00000)	0.013919 (0.00000)	0.016352 (0.00000)
CATAR	0.238057 (0.0001)	0.442862 (0.0001)	0.374708 (0.00000)	-0.01055 (0.8768)	0.716652 (0.00000)	0.484056 (0.00000)	0.397639 (0.00000)	0.086093 (0.3675)	0.271458 (0.00000)	0.261272 (0.00000)
CLTAR	-0.08861 (0.2159)	-0.08054 (0.361)	-0.01895 (0.7739)	-0.21126 (0.0066)	-0.41862 (0.0061)	-0.53175 (0.00000)	-0.03799 (0.3061)	0.138976 (0.0291)	0.010177 (0.731)	-0.0353 (0.0128)
FDR	-0.0101 (0.839)	-0.16702 (0.0016)	-0.09676 (0.0983)	0.054232 (0.3507)	-0.09101 (0.1527)	-0.02739 (0.092)	-0.09643 (0.0032)	-0.21889 (0.00000)	-0.07781 (0.0006)	-0.06472 (0.0000)
LOS	0.007925 (0.283)	0.013767 (0.172)	0.005992 (0.4793)	0.008028 (0.542)	0.015224 (0.3333)	0.021933 (0.2181)	0.037786 (0.0207)	-0.00591 (0.634)	-0.01057 (0.3616)	0.015473 (0.0000)
SG	0.012336 (0.1971)	0.00803 (0.1152)	-0.00944 (0.4502)	0.010394 (0.3206)	0.026965 (0.245)	0.021787 (0.2668)	0.015905 (0.2257)	0.010861 (0.0122)	0.010074 (0.1745)	0.00879 (0.0006)
CR	0.001347 (0.7747)	0.007318 (0.7112)	0.014052 (0.027)	-0.0096 (0.0086)	-0.11694 (0.0009)	-0.03245 (0.0024)	0.002327 (0.8657)	0.040547 (0.0039)	-0.00243 (0.9097)	0.0023 (0.3591)
R-Square	0.7083	0.6938	0.8099	0.6597	0.7068	0.7545	0.6660	0.7715	0.3713	0.6104
Adj R-Sq	0.6653	0.6408	0.7819	0.5991	0.6572	0.7078	0.6162	0.7295	0.2918	0.5654
Fstatistics	16.47	13.08	28.90	10.89	14.25	16.17	13.38	18.40	4.67	13.57
Prob(F-sta)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)	(0.00000)
No. of Obs.	250	150	250	140	160	120	260	130	580	2040

The *P-values* are shown in parentheses.

A Study on the Perceived Organisational Support in the Financial Industry in Malaysia. A Literature Review

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Abstract

Organizational support has become an important issue in companies as it is essentially linked to organizational performance. This is very important especially in globalizations and also the saturation of the job market due to the recent downturn in the economic. In economic downturn financial industry is most important sector and very badly effected. Therefore this study aims to examine the influence of Perceived Organisational Support (POS) on the organisational behaviours of employees working in the financial sector in Malaysia. To explain the POS influence, the organisational behavioural concepts were identified for this study which is job satisfaction, affective commitment and turnover intention. The purpose of this study is to identify the perceived organisational support related to the job satisfaction, affective commitment and turnover intention.

Key words: Perceived organizational support, financial sector and organizational performance

1. Introduction

In this current climate of competitiveness in the business world, there are high expectations being placed on the shoulders of each and every employee. Employees are expected to achieve given targets although some of them are highly unrealistic. Extra bonuses and incentives are only given out if those unrealistic targets are hit. Corporate organisations are trying to maximise the effort that they can get out from the employees at a lower cost. It is inevitable as business competition increases as well as the cost and the lower margin of error.

These situations will lead to employees being aimed as the central component in any business organisations. Job unsatisfactory, lower perks and rewards, poor organisational support and others will cause the employee to leave the company for others who have better job offers. Besides that, in the current economic climate where the financial crisis is affecting the whole world, employees particularly of those working in the financial sector will be worried about their job security and future in their companies. Thus, organisations need to know about their employees' sentiments and opinions about the current working environment and other relevant factors in order to prevent an exodus of employees especially the talented ones.

The financial sector is a prime example for this problem. The financial sector is defined by RBA (2009) as 'the sector of the economy that comprises financial institutions and financial markets'. For this research, the scope of the financial sector is narrowed down to three main industries, namely banking, insurance and investment. The sheer competitiveness of this industry is adequate to inflict enough pressure on the industry players. Financial companies require their staff to achieve a certain level of target whether in sales, loans, credit cards, insurance policies and many others. It is vital to find out about how these people feel about their companies and whether they have other plans in mind.

2. Research Problem and Purpose of Research

In light of the global financial crisis, banks around the world are facing new challenges and threats to the financial sector. Major international banks are going through a difficult period and this is no different for Asian banks. Asian banks have had to retrench their workers especially of those who work in branches of international banks such as HSBC and Citigroup (Wassener, 2008). During this tough period, employees are bound to feel insecure and lack of confidence in their job security. In addition, employees are considered as a key factor in the financial sector due to the intangible knowledge that they provide (Huang, 2008). This emphasise the need to understand the employees feelings and behaviour in the companies when facing challenges.

In a research by Muse and Stamper (2007), perceived organisational commitment is found to be linked to job satisfaction and affective commitment in the manufacturing industry. In that research, the author mention that there are room for further improvements in this area of study by examining affective commitment as a potential mediator of relationships among POS and behaviours directed more toward the organisation, such as turnover, absenteeism and withdrawal behaviours.

Aube, Rousseau and Morin (2007) in their research mentioned that research on POS and organizational commitment has been conducted in various organisational settings, such as manufacturing, private non-manufacturing, health, and education. Thus, a study on this subject in the financial sector would further enhance the relationship between POS and organisational commitment in a different setting.

Liu (2004) stated that future research should incorporate felt obligation as a critical part of the theoretical framework in explaining and understanding social exchange relationships. In that research, it is also suggested that there might be other variables that function as mediators of this relationship such as employees' overall satisfaction with the job or the degree to which employees are embedded in the organisation.

Therefore, POS is believed to be one of dominant factors for the organizational commitment, intention turnover and affective commitment as postulated by the researchers. However, little is known about the influence of this on the financial industry. Hence, the research question of this article is "What is overall impact of Perceived Organisational Support on the organisational behaviour of financial sector employers in Malaysia?"

The objective of the study was to examine evaluate the effects of perceived organisational support towards the organisational behaviour of the employees in the financial sector in Malaysia.

3. Literature Review

According to Saunders et al (2007, p.595), literature review is a 'detailed and justified analysis and commentary of the merits and faults of the literature within a chosen area, which demonstrates familiarity with what is already known about the research topic. There are two major reasons for reviewing the literature (Sharp et al, 2002). Firstly, the preliminary research helps generate and refine the research ideas. The second reason is mainly about the critical review of the literature which forms the core of the study.

3.1 Perceived Organisation Support

The social exchange theory by Blau (1964) and the norm of reciprocity by Gouldner (1960) provide the theoretical framework for understanding between organisational support and organisational behaviour. The basic premise of social exchange theory is that relationships

providing more rewards than costs will yield enduring mutual trust and attraction (Blau, 1964). These obligations may be enacted in the form of increased commitment to the relationship and over time, a pattern of reciprocity evolves, resulting in perceived balance in the exchange relationship (Rousseau, 1989). Organisational support theory recognises that to determine the organisation's readiness to reward increased work effort and to meet socioemotional needs, employees develop global beliefs concerning the extent to which the organisation values their contributions and cares about their well-being (Eisenberger et al, 1986; Shore & Shore, 1995). According to organisational support theory, the development of Perceived Organisational Support (POS) is encouraged by employees' tendency to assign the organisation humanlike characteristics (Eisenberger et al, 1986).

Perceived organisational support is an employee belief that the organisation cares for and values his or her contribution to the success of the organisation (Kaufman, Stamper & Tesluk, 2001). Perceived organisational support encompasses policies promoting employee well-being and feelings of accomplishment, a sense of positive contribution to the organisation, and personal and organisational goal attainment (Eisenberger et al, 2001). POS has shown to be related to a range of positive employee attitudes and behaviours at work such various forms of citizenship and discretionary behaviour, and attendance which resulted in increased interest among both organisational scholars and practitioners in that subject in recent years (Rhoades & Eisenberger, 2002).

Antecedents of POS include procedural justice, supportive and respectful acts by supervisors, recognition, fair pay and rewards, promotions, job security, autonomy, and training (Rhoades & Eisenberger, 2002). Consequences of heightened POS are increased organisational commitment, job satisfaction, positive effect, task interest, task performance, and intentions to remain with the organisation (Rhoades & Eisenberger, 2002). High level of POS is thought to engender feelings of trust, long-term obligations and organisational identification among employees (Loi et al, 2006; Rhoades & Eisenberger, 2002). It is argued that based on the norm of reciprocity in social exchange, employees with higher levels of POS are more likely to repay the organisation with positive attitudes and favourable work behaviours (Eisenberger et al., 1986; Eisenberger, Fasolo, & Davis-LaMastro, 1990; Eisenberger, Cummings, Armeli, & Lynch, 1997).

Eisenberger et al.'s (2001) specifically examined reciprocation's role in the relationships of POS with employee commitment and job performance. Their research suggests that an important mediator of the POS-outcome relationship is felt obligation, which refers to an employee's belief regarding whether he or she should care about the organisation's well-being and should help the organization obtain its goals (Eisenberger et al., 2001).

Shore and Shore (1995) suggested that human resources practices showing recognition of employee contributions should be positively related to POS. A variety of rewards and job conditions have been studied in relation to POS, for example, recognition, pay, promotions, job security, autonomy, role stressors, and training. POS can only be generated as long as employees believe that organisational rewards they receive are based on discretionary choice as opposed to external constraints beyond the organisation's control (Eisenberger et al, 1997). According to organisational support theory, favourable opportunities for rewards serve to communicate a positive valuation of employees' contributions and thus contribute to POS. Accordingly; opportunities for recognition, pay, and promotion have been found to be positively associated with POS (Eisenberger et al, 1997; Eisenberger, Rhoades & Cameron, 1999; Guzzo et al, 1994; Wayne et al, 1997).

In the POS literature, organisational commitment, organisational citizenship behaviours, job performance, and turnover intention have been the set of outcome variables that are usually found to be related to POS. In addition, these variables also represent the major organisational outcomes generally examined in the organisational behaviour literature. The psychological link between a person and his or her occupation that is based on an affective reaction to that occupation, namely, the commitment to one's occupation or profession (Lee, Carswell, & Allen, 2000), is likely to affect one's attitudes and behaviors in the employing organization (Meyer, Allen, & Smith, 1993).

According to Eisenberger et al (2004), POS is assumed to be a global belief that employees form concerning their valuation by the organization. Based on the experience of personally relevant organizational policies and procedures, the receipt of resources, and interactions with agents of the organization, an employee would distill the organization's general orientation toward him or her. Shore and Shore (1995) argued that employees are aware that, because they are disadvantaged in their exchange relationship with the organization, they run a high risk that their efforts on behalf of the organization will fail to be adequately compensated. According to Shore and Shore, this is because: (a) the employee is the less powerful partner in the exchange; (b) there is often a delay inherent in employer fulfillment of obligations; and (c) multiple agents may influence whether obligations are fulfilled.

Favourable HR practices that signify an investment in human capital and demonstrate recognition of employee contributions have been suggested to promote POS (Allen et al. 2003). Shore and Barksdale (1998) found that employees who reported strong mutual obligations between themselves and their organisation had higher levels of POS than employees who reported low mutual obligations between themselves and their work organisation.

Eisenberger et al. (2001) found a positive relationship between postal employees' POS and a general felt obligation to help the organisation. The felt obligation that POS is presumed to produce should enhance performance. Accordingly, Eisenberger et al. (2001) found that felt obligation mediated the positive relationship between POS and extra-role behavior. In stressful situations, POS might reduce psychological strain by indicating the availability of emotional and tangible support (George et al. 1993; Robblee 1998).

3.2 Job Satisfaction

According to Robbins and Coulter (2005), job satisfaction is referring to employees' general attitude toward their jobs. Another definition is it shows the employees' overall affect-laden attitude toward their job (Witt, 1991). It is associated with how well the employee's expectations at work are in line with outcomes (McKenna, 2000). Ostroff (1992) stated that job satisfaction influences organisational performance. However, McAllister (1995) argued that job satisfaction no longer holds a guarantee for job performance.

Greenberg and Baron (1997) define job satisfaction as an individual's cognitive, affective and evaluative reactions towards his or her job. Locke (1984) defined job satisfaction as the state where one's needs and one's outcomes match well. Job satisfaction is traditionally defined as an attitude held by an employee regarding various aspects of work and attitudes have both affective and cognitive components the differential perceptions of what an employee wants to receive compared to what he or she actually receives (Cranny et al, 1992).

This foundation of this theory was developed by Herzberg in 1959 based on 2 important dimensions of job satisfaction. It is called the Herzberg two-factor view. The two factors involved are known as the motivators and hygiene factors. The factors are listed as in the following table:

Herzberg's two-factor view

<u>Motivators (intrinsic)</u>	<u>Hygiene (extrinsic)</u>
Feelings of achievement	Pay
Meaningful work	Status
Opportunities for advancement	Job security
Increased responsibility	Working conditions
Recognition	Fringe benefits
Opportunities	Policies and procedures
	Interpersonal relations

Gibson et al (2006) stated that the presence of extrinsic conditions or job context to the satisfaction of the employees does not necessarily motivate them, but their absence results in dissatisfaction. The extrinsic conditions also known as the dissatisfies or hygiene factors are needed to maintain at least a level of "no dissatisfaction". On the other hand, the absence of intrinsic conditions does not prove highly dissatisfying. However, the intrinsic conditions which are also called the satisfiers or motivators, will build strong levels of motivation that result in good job performance.

A well-known measurement scale for job satisfaction is the McCloskey/Mueller Satisfaction Scale (MMSS). Thirty-three items were constructed based on McCloskey's previous work on the three dimensions of incentives or rewards hypothesised to promote job satisfaction which are safety, social and psychological dimensions (Mueller & McCloskey, 1990). In 1990, Mueller and McCloskey revised this scale and identified eight factors which are:

- Control and responsibility
- Scheduling
- Interaction opportunities
- Professional opportunities
- Extrinsic
- Co-workers
- Praise and recognition
- Balance of family and work

These eight factors can be grouped into the three originally hypothesized job satisfaction domains. Safety rewards included extrinsic rewards, scheduling, and balance of family and work. Social rewards encompassed co-workers and interaction opportunities. Psychological rewards comprised of professional opportunities, praise and recognition, and work control and responsibility.

Tourangeau et al. (2006) identified seven new factors for determining job satisfaction based on the original McCloskey and Mueller satisfaction scale. After considering the original eight-factor scale was not applicable for their studies, they decided to adapt the scale and include new factors and combine some of them. A number of 31 items were analysed and grouped into seven new factors. They are:

- Satisfaction with work conditions and supervisor support

- Satisfaction with scheduling
- Satisfaction with social and interaction opportunities
- Satisfaction with collegial relationships and support
- Satisfaction with scholarly opportunities
- Satisfaction with salary and benefits
- Satisfaction with support for family responsibilities.

Although there are only seven factors which are founded by Tourangeau et al (2006), the model continues to be consistent conceptually with the theoretical foundation of the original MMSS. The three conceptual dimensions of rewards including safety, social and psychological dimensions remain distinguishable in the new factor structure.

If people claim to be satisfied with their jobs, they are usually expressing something more like a feeling about their job rather than their thoughts about it. Seeing job satisfaction as essentially an affective rather than cognitive response means the concept can be placed more squarely in the broader context of well being. The ten best aspects of job that consistently correlate with employees' affective states have been assembled by Warr (2002):

- Autonomy- absence of close supervision, discretion.
- Opportunity for skill use- skill utilization.
- Externally generated goals- job and task demands, workload, role demands, role conflicts.
- Variety- skill variety, task variety.
- Environmental clarity- feedback, role clarity, information about the future, absence of job insecurity.
- Availability of money- income level, financial resources.
- Physical security- noise and temperature level, good working conditions, safety.
- Supportive supervision- effective leadership.
- Opportunity for interpersonal contact- quantity and quality of interaction.
- Valued social position- wider social evaluations of job status.

3.3 Affective Commitment

Commitment is defined as 'a sense of identification, loyalty and involvement expressed by an employee toward the organisation or unit of the organisation' (Gibson et al, 2000). According to Meyer and Allen (1997), a committed employee is the one who stays with the organisation through thick and thin, attends work regularly, puts in a full day (maybe more), protects company's assets, shares company goals and others. Commitment is said to be developed through the process of identification in which a person experiences something of some ideas as an extension of the self (Iverson, 1996). Organisational commitment is defined as the degree to which the employee feels devoted to their organisation (Spector, 2000).

However, Meyer and Allen (1997) argue that there is not a great deal of evidence to link high commitment and high levels of organisational performance. Another argument is that high commitment might even reduce the performance of the organisation. Cooper and Hartley (1991) suggest that commitment might decrease flexibility and inhibit creative problem solving.

There is general acceptance that organisational commitment has three main facets: affective, continuance, and normative, each with its own underlying 'psychological states' (Meyer & Allen, 2000).
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1997). Affective commitment is defined as 'an affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization' (Allen & Meyer, 1990). Affective commitment refers to the emotional bond and the identification the employee has with the organisation. For the employees the positives include enhanced feelings of devotion, belongingness, and stability (Meyer, Allen & Smith, 1993). Three aspects characterize affective commitment: the acceptance of organisational goals and values, the willingness to exert effort on behalf of the organisation and the intention to remain in the organisation (Dipboye et al., 1994; McCaul et al., 1995).

Continuance (economic/calculative) commitment refers to what the employee will have to give up if they have to leave the organisation or in other terms, the material benefits to be gained from remaining. Employees whose primary link to the organisation is based on continuance commitment remain with the organisation because they feel they need to do so for material benefits (Meyer, Allen & Smith, 1993). The difference between affective commitment and continuance commitment is that employees high in affective commitment stay with the organisation because they want to, while employees high in continuance commitment stay because they have to (Meyer et al., 1990).

Lastly, normative commitment or moral commitment (Jaros et al, 1993) reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organisation (Bentein et al, 2005).

Behaviours related to organisational support (e.g. promotions, salary increases, training, tangible help) appear to be interpreted by employees as marks of respect and consideration on the part of their employer, which in turn appears to increase their trust in and the quality of their relationship with the latter (Chen et al., 2005; Cheung, 2000; Eisenberger et al., 2001). Organisational rewards have been found to be related to affective commitment (Gaertner & Nollen, 1989; Gregersen, 1992). In other words, in order to show their gratitude to their employer, employees appear to develop a positive attitude towards the organisation, increasing their level of affective commitment. Three major categories of work experiences which are organisational rewards, procedural justice and supervisor support have been found to be positively related to affective commitment (Meyer & Allen, 1997). Meyer and Allen (1997) and Allen et al (1999) suggested that associations between favourable work experiences and affective commitment are partially mediated by POS.

3.4 Turnover Intention

Employee turnover is the rotation of workers around the labour market; between firms, jobs and occupations; and between the states of employment and unemployment (Abassi and Hollman, 2000). Turnover intention is defined as an employees decision to leave an organisation voluntarily (Dougherty, Bluedorn & Keon, 1985). Turnover intention refers to "an individual own estimated probability that they are permanently leaving the organisation at some point in the near future (Vandenberg & Nelson, 1999). Another definition include is turnover intentions are the thoughts of the employee regarding voluntarily leaving the organization (Whitman, 1999).

Employees leave for a number of reasons, some to escape negative work environments, some are more in alignment with their career goals, and some to pursue opportunities that are more financially attractive. Involuntary turnover is usually employer initiated, where the organisation wishes to terminate the relationship due to incompatibilities in matching its requirements. Involuntary turnover can also include death, mandatory retirements, and ill health (Mobley, 1977).

Researchers have found intent to leave or stay as the strongest predictor of actual turnover (Hendrix et al., 1999).

The exiting of employees also has indirect cost implications that include reduced morale, pressure on the remaining staff, costs of learning, and the loss of social capital (Dess & Shaw, 2001). One of the main consequences for organisations that have a high turnover is the financial cost. The total costs of employee turnover are hard to measure, in particular the effects on the organisation's culture, employee morale, and social capital or loss of organisational memory (Dess & Shaw 2001).

If managers could develop reward systems that retained the best performers and caused poor performers to leave, the overall effectiveness of an organisation would improve (Gibson, Ivancevich & Donnelly, 2000). Martin (2003) investigated the determinants of labour turnover using establishment-level survey data for the UK and concluded that there is an inverse relationship between relative wages and turnover. For example, companies with higher relative pay had lower turnover). Griffeth et al (2000) noted pay and pay-related variables have a modest effect on turnover. Their analysis also included studies that examined the relationship between pay, a person's performance and turnover. They concluded that when high performers are insufficiently rewarded, they leave.

4. Relationship between Perceived Organisational Support and Job Satisfaction

Eisenberger et al. (1986), in two studies, correlated perceived organisation support with increased employee efforts to attain organisational goals. This can be directly linked to job satisfaction as employees with higher satisfaction will put more effort into helping the organisation achieving its goals and employees with lower job satisfaction would be less motivated to strive harder for the organisation.

POS should contribute to overall job satisfaction by meeting socio-emotional needs, increasing performance-reward expectancies, and signalling the availability of aid when needed (Rhoades and Eisenberger, 2002). In one study, Eisenberger et al. (1990) reported perceptions of organisational support to be related to their voice behaviour by offering constructive suggestions for improving the organisation. This can indicate that the employees are satisfied with their current position within the organisation which enabled them to provide good insights for the company. POS has been found to be related to, yet distinct from, job satisfaction (Eisenberger et al, 1997).

5. Relationship between Perceived Organisational Support and Affective Commitment

On the basis of the reciprocity norm, POS should create a felt obligation to care about the organisation's welfare (Eisenberger et al, 2001). Consistent with the view that employees form a general belief regarding the organisation's commitment to them, Eisenberger et al. (1986) reported that employees showed a consistent pattern of agreement with statements concerning whether the organisation appreciated their contributions and would treat them favourably or unfavourably in differing circumstances.

It is argued using a social exchange framework that employees who perceive a high level of support are more likely to feel an obligation to 'repay' the organisation in terms of affective commitment (Eisenberger et al, 1986). The obligation to exchange caring for caring should

enhance employees' affective commitment to the personified organisation. Additionally, Shore and Tetrick (1991) suggested that POS might reduce feelings of entrapment that occur when employees are forced to stay with an organisation because of the high costs of leaving. Kaufman et al (2001) reported that POS was strongly related to loyalty, an aspect of organisational commitment directed toward the organisation. Eisenberger et al (2001) added POS would enhance affective commitment by producing a felt obligation to care about the organisation's welfare and by incorporation of organisational membership and role status into social identity. Affective commitment is also a key indicator of employee integration at work which, because of its reported positive effects on important organisational phenomena, such as turnover, voluntary absenteeism, and various aspects of both in-role and discretionary performance, is of central interest to organisational scholars and practitioners alike (Meyer et al, 2002).

Although POS is a commitment concept, it is different from the traditional approach of studying employee commitment to the organisation, thus creating a distinction between POS and affective commitment (Shore & Wayne, 1993). Employees may interpret the support provided by their employer as a demonstration of commitment towards them (Eisenberger et al., 1986; Rhoades and Eisenberger, 2002; Shore and Shore, 1995), which in turn tend to enhance their commitment to the organisation. A meta-analysis conducted by Rhoades and Eisenberger (2002) shows that POS is strongly and positively correlated with affective commitment.

Eisenberger et al (1990) found that POS was positively related to express affective and calculative involvements in the organisation. Due to this, it is questionable whether POS may be necessary for understanding employee behaviour because affective commitment may be the outcomes of organisational support and thus may be more closely linked to employee behaviour. However, these forms of commitment are not redundant with POS (Shore & Wayne, 1993).

6. Relationship between Perceived Organisational Support and Turnover Intention

Several researchers (Indvik, 2001; Kephart and Schumacher, 2005; Meyerson and Fletcher, 2000) observed in their research that women's perceptions of lack of support for their advancement are in fact related to their turnover intentions. POS enhances employees' effort-outcome expectancy (i.e. employees believe that greater effort towards meeting organisational goals will be rewarded later). High POS employees tend to express stronger feelings of affiliation and loyalty to their organisation and to interpret the organisation's gains and losses as their own. It follows that the effort-outcome expectancy and the incorporation of organisational membership resulting from enhanced POS would reduce employees' intentions to leave the employing organisation.

Since people value norm of reciprocity and often reciprocate in kind (Sherony and Green, 2002). POS has been found to be associated with turnover intention but not with actual turnover (Allen et al, 1999; Wayne et al, 1997). One avenue to reciprocate is to have a lower intention to leave the organisation. When employees perceive a lack of support, they are likely to display withdrawal behaviours including intentions to leave the organisation (Wayne et al, 1997). Empirically, POS was found to be negatively related to leave (Masterson et al, 2000).

7. Conclusion

Undeniably, POS and job satisfaction, effective commitment and turnover intention significantly related and improvisation of performance for any organization. The proposed relationship in this study seeks to close the gap in the literature for the assessment of the POS. Furthermore, this relationship seeks to advance the literature regarding the relationship of POS research and at the

same time, to provide a means for the both practitioners and the academicians to better comprehend the link between POS practices and organizational behaviours. The initial study on the proposed relationship which is to examine the link between POS and job satisfaction, effective commitment and turnover, has led to further studies on the job satisfaction, affective commitment and turnover intention relationships of POS, which are to be important attributes. As for improvements, further surveys and research should be done using the multivariate analysis to test, validate and enhance the model.

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WEAK FORM EFFICIENCY: KARACHI STOCK EXCHANGE-PAKISTAN

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Abstract

Purpose to write this paper is to check either Karachi Stock Exchange (KSE) in Pakistan is weak form efficient or not. This study has been conducted by analyzing stock prices through making use of three tests including unit root test, runs test and autocorrelation function test. In order to estimate the movements of stock prices and to apply these three tests we collected two years data from Karachi Stock Exchange, on every day basis. All tests provided the same results and have given the evidence, that market is weak form in efficient, series is not random and data is not normally distributed. Past values of stock prices can predict future values of stock prices and an investor may have abnormal profits.

Keywords: KSE 100 index, weak form efficiency, unit root test, runs test, autocorrelation function test, inefficient market, returns

Introduction

Financial market concept is driven from the general concept of market. It has been known since the world and people have started living. With the passage of time the financial markets made the rules and time by time these rules were modified as per the demand of economic development and as social changes influence them. The needs and demands of individuals and technological development have risen in this modern era (Mishkin and Eakins, 2009).

A financial market has not limited its roots and it is not confined in the frame work only but it always find the effective tools of communication where the sellers and the buyers are concerned. The market has made specialized in the types of investment and for instrument also (Besley and Brigham, 2003).

There are many empirical studies in the past to find out whether the specific markets are “efficient” or not? On the other hand, there are some researchers whose technical theories and strategies are useless while predicting prices of securities. There are many views and theories in the world regarding efficiency or inefficiency of the market. Many practitioners describe the market as neither perfectly efficient nor it is completely inefficient and these variations comes due to other factors. While discussing the market efficiency some researchers said that the efficiency of market varies from market to market, as some of the market is more efficient than the others. Bond market by government are extremely efficient and according to some of the researchers, large capitalization stocks are consider to be efficient while considering the small capitalization stocks and internationally stocks they are comparatively less efficient.

The market efficiency can be determined with the help of Efficient Market Hypothesis (EMH) by Fama (1965) and he has described that the market prices give complete information that is available in a particular market. The EMH circulate around the idea of “random walk”, which is the series of price where changes in all of the prices reflect random variation from previous prices. Moreover, efficient market hypothesis enables the market competition in such a way that none of the investor can exploit the market in shorter term as well as in longer term. According to Fama (1970) and Samuelson (1965), in efficient market hypothesis (EMH) prices in stock market not only give complete available market information but also follow a random walk process for the hypothesis.

In order to investigate Weak Form Efficiency (WFE) further in emerging as well as developing markets, we have prolonged this chain of struggle and conducted an empirical study in Pakistani Karachi Stock Exchange. By analyzing data of *KSE 100* index on daily basis, we have assessed the WFE of Pakistan for two years, i.e. 2008-2009. The findings of Unit Root Tests, Autocorrelations in addition to Runs Test have strongly rejected the efficient market hypothesis in the case of Pakistan. There are clear and vivid patterns as well as market directions that provide help in prediction of the future prices and consequently assist the investors in yielding abnormal returns of high volumes and makes Pakistani market unproductive and inefficient. In Pakistani capital market there are informational limitations, which lead the market towards weak form inefficiency. The subsequent section of this paper presents a thorough literature review.

Literature Review

Definition of efficient market is the direct consequence or output of the development of the efficient market theory and in 1969 Fama has given the first definition of market efficiency. According to Fama, a market when adjusts rapidly to new information is known as efficient market. After one year, Fama in late 1970s modified the definition by giving more precision and said that the markets in which prices provide all available information are known as efficient market.

In the beginning when the concept of efficient market was introduced in the financial economical field, it was not given much importance and didn't earn the fame. But when the evident version of efficient market hypothesis was introduced then the efficient market concept was well recognized. Later on, in 1970 Fama has provided some influential work in the EMH or efficient market hypothesis and provided the platform of Random Walk Model. Researcher didn't make one or some specific model and technique rather developed many techniques to measure one thing which usually creates bit confusion. There are many empirically studies and techniques including parametric as well as non-parametric tests, in order to find out the weak form efficiency in the stock market but in the whole scenario both focus on the model of random walk.

Mainly, empirical researchers wanted to find out that whether past prices when they goes up and down might help in the prediction of future prices path or not? The theory which is based on

these predictions of prices is weak form of market efficiency and in 1960s; the theory of random walk was broadened into capital market equilibrium theory, which is called as efficient market theory (Ibbotson & Brinson, 1989). Concept of this theory explains the patterns of market prices; it says if prices in the market are not following the pattern, then the actual present price reflects the prediction of future. If prices move randomly then it gives birth to great challenge, which is faced by market analyst who are always in the process of prediction of future path of prices in the securities of market.

While categorizing the efficiency, Fama defines the efficiency as weak form efficiency, semi strong form of efficiency and strong form efficiency as well. The theory of weak form efficiency explains that the security shows complete information that may affect the pricing since it was publicly offered. By moving forward with this concept, past information affects the price competition while the prices of securities are formed. These data show that technical analysis is impossible in the weak form efficiency. It does eliminate the functioning of technical analysis and may provide meaningful information about the pricing function. In these types of cases we need to have analysts in such a market.

Semi strong form market efficiency is the second form from Fama and it explains the efficiency of market in the situation in which we have both past information of market and all the public information that is present and will leave the impact on the formulation of share prices. These predictions and explanations made the company to decide the trends of market immediately. Share price will find the new prices and none of the investor in market will be able to attain the abnormal profit as they used to get previously.

The third form of efficiency by Fama is the strong form efficiency and in that, the prices are equitable in markets where the efficiency is completely provided and due to this no one in the market can get the abnormal profit. This thing happens because of the reason the information, which has been provided in the market, is completely new and reflect the prices formation quickly and the security prices will not face the problem of over valuation or under valuation. All the information in the company is present in the market and because of that reason the doubts of valuation of security prices will be eliminated and neither the technical analyst with historical

data nor the basic analysts will be able to seek the information, which the public doesn't seek it so the elimination of abnormal profit is done.

Some researcher's findings say that the weak-form efficiency in developing market of comparatively less developed market is in a state of controversy. This problem was faced by less developed market because of thin trading problem. There is always a discussion that the markets, which are emerging are not very efficient but the study goes against this concept. Moreover, by taking this concept of markets, there are two different theories that differ with each other on the basis of their studies.

In other previous studies, researchers believed that those markets that are developed have the weak-form efficiency. But when we compare developed market with the dynamics of emerging markets we required clarification. There are two important elements in the emerging capital markets which are:

- Comparison
- Additional information on equity prices dynamics.

So an empirical question raises and this is also case with the less developed market stock exchanges. In 2002 Basdevant and Kvedaras worked again on the efficiency analysis and opened the new gates on research for the weak form efficiency.

These researchers have used different tools and procedures to test the efficient market hypothesis and when concluded they have the contradictory results. Some of the researchers have agreed and accepted the weak form efficiency while on the other hand some of the researchers defined this fact of weak form efficiency. Thus there is always a controversy on the efficiency of emerging and developed capital markets and it will be continued with the period of time. So it contains the importance of all the time and should be re-examined.

Methodology

After going through an extensive literature review of markets and having review of various techniques that are applied in order to perform a study regarding WFE of the stock market, our

research does not concentrate on merely single test. Rather we have used the unit root testing, auto correlations function test and runs test for testing the WFE in stock market of Pakistan. We have used software of eviews for estimation of results. We have applied three tests because it has provided the robustness of estimated outcomes and has added rigor or thoroughness to the study as well.

Unit Root Test

Random Walk Hypothesis (RWH) test, in returns series has been considered as an ultimate measure in order to study weak form efficiency of a stock market. Extensive empirical literature that has examined the WFE of stock markets put emphasis on random behavior of stock prices that makes sure successive movements of price are not depending on each other. Current price of stock is independent of precedent stock prices and do not assist in forecasting the expected stock price movements.

In returns series, an important unit root test formulates the foundation of random walk and makes certain the WFE of stock market. Opposing to it, at five, ten and fifteen percent levels, rejection of unit root form illustrates successive movement of prices have dependency on each other and this point out time trend and makes market weak form inefficient. In fields of statistics as well as in econometrics, a unit root test that has been applied in a time series sample is known as an Augmented Dickey Fuller test or ADF. Dealing with more complex and larger set of models of time series, it has been used as an advanced version of Dickey Fuller test. In the test, ADF statistic is a negative number and if it is more negative, then rejection of hypothesis is stronger that shows at some level of confidence there is a unit root.

Runs Test

For a two-valued sequence of data, runs test or Wald–Wolfowitz test examines a randomness hypothesis and provides help in testing of hypothesis, i.e. elements of the series are mutually not dependent of each other. In a sequence, a run is a maximal non-empty part that comprises of adjacent equal elements.

Formula to calculate expected runs is:

$$E(R) = \frac{2N_1 N_2}{N} + 1$$

Where,

N_1 = Number of positive (+) symbols

N_2 = Number of negative (-) symbols

N = Total number of observations

Formula to calculate standard deviation of runs is:

$$\sigma_R = \sqrt{\frac{2N_1 N_2 (2N_1 N_2 - N)}{N^2 (N - 1)}}$$

Formula for calculation of probability is:

$$E(R) - 1.96 \sigma_R \leq R \leq E(R) + 1.96 \sigma_R$$

Where, R is the number of actual runs in a sample. Runs tests can be used to test the randomness of a distribution and to check whether a function fits well to a data set or not?

Auto Correlation Function Test (ACF)

The autocorrelation function or ACF is an extensively known statistic to find out the presence of serial correlation. It provides more detailed and thorough description of the underlying process. In order to test whether a sample autocorrelation coefficient is equal to zero, we have to state and specify the distribution of the standard estimators of the autocorrelation coefficients and autocorrelation has importance in econometric analysis as well.

Mathematically:

$$\rho_k = y_k / y_0 = \text{covariance at lag } k / \text{variance}$$

$$\frac{\sum (y_t - \bar{y})(y_{t+1} - \bar{y})/n}{\sqrt{\sum (y_t - \bar{y})^2/n}}$$

Where, ρ_k is autocorrelation at lag k

Findings of Unit Root Test

To investigate empirically we started with estimations of unit root test. Outcomes of the unit root test (ADF) were applied to the log (KSE 100 index). The test has significantly rejected the hypothesis of stationarity for the log price of KSE 100 index on daily basis for year 2008-2009, as shown in table 1. In case of KSE 100 index series this finding has clearly rejected the RWH and it means that the stock prices are weak form inefficient and data is not normally distributed. The result has suggested that the stock prices can be predicted and in order to get abnormal profits the investors can follow the systematic pattern as well. Next we will go for analysis through runs test to further investigate weak form efficiency.

Table 1:

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-1.171886	0.6879
Test critical values:	1% level		-3.444499	
	5% level		-2.867672	
	10% level		-2.570100	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Sample (adjusted): 3 457				
Included observations: 455 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CLOSE(-1)	-0.003040	0.002594	-1.171886	0.2419
D(CLOSE(-1))	0.238999	0.045438	5.259930	0.0000

C	23.53910	26.79029	0.878643	0.3801
R-squared	0.060404	Mean dependent var		-8.718681
Adjusted R-squared	0.056247	S.D. dependent var		171.4581
S.E. of regression	166.5663	Akaike information criterion		13.07524
Sum squared residual	12540444	Schwarz criterion		13.10240
Log likelihood	-2971.616	F-statistic		14.52895
Durbin-Watson stat	1.919521	Probability (F-statistic)		0.000001

Findings of Runs Test

After taking data of two years (2008-2009) on daily basis, we applied runs test and found that in Pakistani stock market there are clear patterns, i.e. both positive and negative in the return series that has indicated market is not weak form efficient, instead it is weak form inefficient.

Expected Runs:

$$E(R) = \frac{2N_1 N_2}{N} + 1$$

$$= 2(185)(256)/441 + 1$$

$$= 215.78$$

Standard Deviation of Runs:

$$\sigma_R = \sqrt{\frac{2N_1 N_2 (2N_1 N_2 - N)}{N^2 (N - 1)}}$$

$$= \sqrt{2(185)(256)[2(185)(256)] / (441)^2 (441 - 1)}$$

$$= 10.215$$

Probability:

$$E(R) - 1.96 \sigma_R \leq R < E(R) + 1.96 \sigma_R$$

$$215.78 - 1.96 (10.215) = 195.788$$

$$215.78 + 1.96 (10.215) = 235.77$$

$$R = 185$$

The outcome has shown that value of R i.e., 185 is not lying in between the range starting from 195.788 to 235.77. Hence, it is evident that series/sequence is not random and market is proved to be weak form inefficient.

Findings of Auto Correlation Function Test (ACF)

After applying ACF test on data of two years of KSE 100 index, on daily basis, we have found that there is high correlation between stock prices that is ranging from 77 to 99 %, as shown in table 2. Moreover, results of Lung-Box Q-Statistic also show linkage in values that implies that series is non stationary. It vividly indicates that value of stock price is leading and on basis of past data an investor can predict future value. Therefore, market is weak form inefficient.

Table 2:

Sample: 1,457						
Included observations: 457						
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *****	. *****	1	0.997	0.997	456.84	0.000
. *****	* .	2	0.993	-0.077	911.06	0.000
. *****	* .	3	0.988	-0.115	1361.9	0.000
. *****	. .	4	0.983	-0.025	1809.2	0.000
. *****	. .	5	0.978	-0.021	2252.6	0.000
. *****	. .	6	0.972	-0.053	2691.9	0.000

. *****	. .	7	0.966	0.045	3127.2	0.000
. *****	. .	8	0.961	0.037	3558.8	0.000
. *****	. .	9	0.956	0.022	3986.9	0.000
. *****	. .	10	0.951	-0.016	4411.4	0.000
. *****	. .	11	0.946	-0.019	4832.2	0.000
. *****	. .	12	0.941	0.007	5249.6	0.000
. *****	. .	13	0.936	0.000	5663.5	0.000
. *****	* .	14	0.930	-0.124	6073.3	0.000
. *****	. .	15	0.924	-0.006	6478.7	0.000
. *****	. .	16	0.918	0.005	6879.8	0.000
. *****	. .	17	0.912	-0.048	7276.2	0.000
. *****	. .	18	0.905	-0.033	7667.6	0.000
. *****	. .	19	0.898	-0.016	8053.9	0.000
. *****	. .	20	0.891	-0.026	8435.0	0.000
. *****	. .	21	0.884	-0.025	8810.6	0.000
. *****	. .	22	0.876	0.010	9180.8	0.000
. *****	. .	23	0.869	0.021	9545.8	0.000
. *****	. .	24	0.862	0.032	9905.9	0.000
. *****	. .	25	0.855	0.027	10261.	0.000
. *****	. .	26	0.849	-0.021	10612.	0.000
. *****	* .	27	0.842	-0.060	10957.	0.000
. *****	. .	28	0.835	-0.004	11298.	0.000
. *****	. .	29	0.828	0.042	11634.	0.000
. *****	. .	30	0.821	-0.038	11965.	0.000
. *****	. .	31	0.814	-0.035	12291.	0.000
. *****	. .	32	0.806	-0.037	12612.	0.000
. *****	. .	33	0.798	-0.021	12927.	0.000
. *****	* .	34	0.789	-0.076	13236.	0.000
. *****	. .	35	0.781	-0.013	13538.	0.000
. *****	. .	36	0.772	-0.019	13835.	0.000

Conclusion

In developing stock markets, this research article is an addition to debate on weak form efficient market by doing analysis of the returns of behavior of stock market in Pakistan. For this reason the study collected data from KSE 100 index for years 2008 and 2009 on daily basis. So as to test the weak form efficient hypothesis, the study has gone through three tests including unit root test, runs test and auto correlation function test to check the strength of the estimated results. Returns distribution is non-normal and the estimated results and findings of all three tests have significantly rejected the hypothesis of stationarity. Secondly, results of Lung-Box Q-Statistic (shown in table 2), to test the autocorrelations of the returns series has clearly rejected the joint hypothesis of zero auto correlations and considerably huge values of autocorrelations are showing that the stock prices have not followed random Walk instead they have predictive power and can forecast upcoming prices. Results of all tests have supported refutation of the weak form efficient hypothesis as far as Pakistani stock market has been concerned. Therefore, on the basis of findings, we have concluded that Pakistani stock market has not shown characteristics of weak form efficient market and the weak form efficient hypothesis is not true and current prices of stock provide help in forecasting the future prices of stock. Resultantly predictive movement of stock prices may prove beneficial for investors in yielding arbitrage benefits as well as abnormal profits, since market is weak form inefficient.

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