

Transformational Leadership Style and Job Satisfaction Relationship: A Study of Structural Equation Modeling (SEM)

W.A. Wan Omar

Department of Economics, College of Business, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

FauziHussin

Department of Economics, College of Business, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

Abstract

The objective of the study was to empirically investigate the relationships between transformational leadership style proxied by charismatic or inspirational motivation, intellectual stimulation, and individualized consideration with job satisfaction. 100 respondents from an academic institution in Malaysia had voluntarily participated in the study. The data was analyzed by means of confirmatory factor analysis (CFA) using SPSS Amos software. The revised structural equation modeling (SEM) for relationship between transformational leadership style and job satisfaction passed goodness-of-fit (GOF) tests with near perfect results for absolute and incremental fit measures (chi square to degree of freedom 1.004; p-value 0.469; RMSEA 0.006; and comparative fit index (CFI) 1.000). However, only two out of the three dimensions of leadership were having significant relationships with job satisfaction. Positive relationship existed between intellectual stimulation and job satisfaction, while individual consideration was negatively related. The result also revealed that leadership was an insignificant mediator in the relationships between charismatic, intellectual stimulation and individualized consideration with job satisfaction.

Keywords: Transformational leadership, job satisfaction, structural equation modeling (SEM), AMOS, Malaysia.

Introduction

The relationship between leadership and job satisfaction is one the critical success factors in any organization and it have become one of the favourite topics of studies among psychology, management and organizational behavior researchers. Spector (1997) reported that literally thousands of literature on the subject could be found in the journals of organizational behaviour and its related fields, because it has become a central variable in both research and

theory of organizational phenomena ranging from job design to supervision (Spector, 1997). However, relationship study of the above-mentioned subjects from the perspective of structural equation modeling (SEM) is quite recent with limited published literatures in the referred journals (Hair, et.al., 2010). This paper is to study the relationship between transformational leadership style proxied by charismatic or inspirational motivation, intellectual stimulation and individualized consideration with job satisfaction using SEM approach.

Job satisfaction refers to how content an individual is with his or her job in an organization. It has been used as a mean to allure and retain the qualified and performance employees in the organization. There are many factors that determine the job satisfaction, and one of the factors is leadership style.

An effective leadership style of the leaders in an organization is capable of providing motivational stimulus and direction to their followers to achieve the organizational mission and goals. From organizational perspective, leadership differs from the managerial position in the business organization. The managers are concerned with the short-term problems within the organization, while the leaders adopt a much broader perspective not only in the business organization but to any organization that requires leadership.

The objective of this paper is to empirically investigate the relationship between transformational leadership style and job satisfaction in one of the academic institutions in Malaysia, using structural equation modeling (SEM) approach. The hypothesis testing will be conducted by means of confirmatory factor analysis (CFA). The paper is structured into four major sections. The first section will elucidate the literature review of the subject matter that is extracted from various journals and other secondary sources. In the literature review also, the proposed theoretical framework for the study is presented. Details on the data on respondents, instruments to measure job satisfaction and leadership style, and methodology of research are discussed in the second section. Section three presents the findings, followed by discussion and implications of the findings. The final section will conclude the research findings.

Literature Reviews

Transformational Leadership Style

Basically, leadership style can be categorized into three major styles – transactional, laissez faire and transformational leaderships (Burns, 1978) (Bass & Riggio, 2006). Transactional leaders believe that people are easily motivated by rewards and punishments. In consequence there are series of “transaction” being communicated between the leaders and their followers to explain how tasks must be conducted and inform them the rewards for the job well done as well as the punishment for the failure (Avolio, et.al., 1991). Transactional leaders are also more interested in looking after their interests and share the benefits with their followers.

A passive kind of leadership style is laissez-faire leadership. Communication or relationship exchange between the leader and the followers is very limited. Laissez-faire leadership represents a non-transactional kind of leadership style in which necessary decisions are not

made, actions are delayed, leadership responsibilities ignored, and authority unused. A leader displaying this form of non-leadership is perceived as not caring at all about others' issues (Avolio, 1999).

Transformational leaders, in contrast focus on intrinsic motivation and personal development of their followers. They provide a vision and a sense of organizational mission; inspire pride, respect and trust among their followers (Bass & Riggio, 2006) (Sivanathan & Fekken, 2002). Avolio et al (1991) argue that transformational leaders have done more with their followers than transactional leaders in motivating them to reach the organizational goals. Transformational leadership, according Avolio et al can exhibit various types of behaviour or dimension – idealized influence or charismatic, inspirational motivation, intellectual stimulation and individualized consideration.

Idealized Influence

Idealized influence refers to the followers' view at the leader in terms of power, charisma, self-confidence, trust, consistency and ideals to influence his followers, in which individuals make efforts to imitate and respect. Avolio and Bass (2002) emphasize that such leaders become a target of admiration, respect, sense of responsibility, confidence, growing optimism and the talks of their followers.

The sources of idealized influence may be attributed from the results of leaders' behaviour, values, beliefs and high moral standard (Jung & Avolio, 2000).

Charisma/ Inspirational Motivation

In inspirational motivation, the leader is expressly and characteristically emphasizing to his followers the need to perform well and helps to accomplish the mission and goals of the organization. Bass and Avolio argue that the leaders who adopt this kind of behaviour have an ability to strengthen their followers' responses (Bass & Avolio, 1994). They also have communication flair to explain important ideas and vision in the simplest way to understand by their followers to pursue.

The main source of charisma/ inspirational motivation is leadership by example. Transformational leaders set a best example for their followers, communicate clearly the vision, encourage hard works, and simply the method or approach to pursue the organization's goals (Bass B., 1994).

Intellectual Stimulation

Intellectual stimulation in leadership is the ability of a leader to keep his followers thinking about the tasks at hand, asking questions and solving problems. Transformational leadership has the intellectual capability to stimulate followers to be creative in problem solving by

introducing ideas and preliminary solution to the problems based on their own understandings, beliefs and standards (Avolio & Bass, 2002).

Transformational leaders also do not criticize their followers in the public for the mistakes. In contrast, they provide their followers with challenging tasks and encourage them to carry out the tasks with their own approach. Nevertheless, the transformational leadership will highlight the rationality of the new approaches, beliefs and values in problem solving to their followers to choose from.

Job Satisfaction

The concept of job satisfaction has been defined in many different ways. From the psychological perspective of its relationship with leadership style, the notion of job satisfaction includes multi-dimensional responses to one's job, and that such responses have cognitive (evaluative), affective (or emotional), and behavioral components (Judge & Klinger, 2003). Weiss has also argued that job satisfaction is an attitude but points out that researchers should clearly distinguish the objects of cognitive evaluation which are affect (emotion), beliefs and behavior (Weiss, 2002). This concept of job satisfaction suggests that we form attitudes towards our jobs by taking into account our feelings, our beliefs, and our behaviors.

From organizational management perspective, job satisfaction research has practical applications for the enhancement of individual lives as well as organizational effectiveness. The success of any organization is very much depended on the commitment and hard work on the part of their employees. Because of that, job satisfaction has been used as a tool to attract and retain the best employees within the organization.

Job satisfaction can be measured by many different methods. By far, the most common method for collecting data pertaining to job satisfaction is the Likert scale (named after Rensis Likert). Other less common methods of for gauging job satisfaction include: Yes/No questions, True/False questions, point systems, checklists, and forced choice answers.

Smith et al., propose five-facet Job Descriptive Index (JDI) to measure job satisfaction: pay, promotions and promotion opportunities, coworkers, supervision, and the work itself (Smith, et.al., 1969). Locke adds a few more facets into the index: recognition, working conditions, as well as company and its management. JDI is a specific questionnaire type of job satisfaction measurement that has been widely used (Locke, 1976). Other job satisfaction questionnaires type measures include: the Minnesota Satisfaction Questionnaire (MSQ), the Job Satisfaction Survey (JSS), and the Faces Scale.

There are several factors that affect job satisfaction: salaries, fringe benefits, achievement, self-independent, recognition, communication, supervision, and several others. The most important factors that determines job satisfaction is leadership style which plays an important role in organizing people and social interaction within the organization (Sulieman Ibraheem, et.al.,

2011). Previous studies conducted by several researchers have revealed that there is a strong positive relationship between transformational leadership style and job satisfaction.

Previous Studies on Transformational Leadership and Job Satisfaction Relationships

Previous studies on relationships between leadership and job satisfaction have been conducted from various theoretical perspectives – the choices of leadership style that affect job satisfaction; specific transformation leadership style to job satisfaction; and the insertion of mediators between transformational leadership and job satisfaction relationship (Shim, et.al., 2002) and (Yousef, 2000).

In the choice of leadership style, transformational leadership has been reported to be positively related to job satisfaction in various sectors of organization as compared to other styles of leadership such as transactional and laissez faire (Sulieman Ibraheem, et.al., 2011) (Voon, et.al., 2011) (Emery & Barker, 2007). Leadership style also plays an important role in the organization to influence employees' job satisfaction as reported by (Bass, 1985), (Lashbrook, 1997), (Niehoff, et.al., 1990), (Bartolo & Furlonger, 2000) and other researchers.

Four dimensions of transformational leadership – inspirational motivation, intellectual stimulation, individual consideration and idealized influence have been found to be positively related to job satisfaction (Sulieman Ibraheem, et.al., 2011) (Fatima, et.al., 2011). There are several variables that have been proxied as job satisfaction predictor in the studies such as working condition, work assignment, Job Descriptive Index (JDI) or Minnesota Satisfaction Questionnaire (MSQ). Transformational leadership also reduces work pressure and promotes job satisfaction (Medley & La Rochelle, 1995). Bono and Illies report that there is a positive relationship between charisma, positive emotion and mood contagion of leaders to provide inspirational motivation to their followers that influence their job satisfaction (Bono & Illies, 2006).

Several variables have been used as the mediators in the studies of relationship between transformational leadership and job satisfaction. The purpose is to check the indirect effect mechanism of leadership style on job satisfaction (Shim, et.al., 2002). Job characteristic is found to be one of significant mediators in transformational leadership style and job satisfaction relationship.

Research Framework and Hypothesis

Based on the research findings from previous studies, we have selected transformational leadership style as a dependent variable (DV). In the case of independent variables, we combine two variables – idealized influence and inspirational motivation - into a single independent variable called charisma or inspirational motivation. The reason is due to limited numbers of sub-variables collected from the respondents. The other independent variables (IV) for the model include individual consideration and intellectual stimulation.

The framework for the study is presented in Figure 3-1 that shows the relationships between dependent variable (DV) job satisfaction and three independent variables (IV) – charisma/inspirational motivation, individualized consideration and intellectual stimulation. Latent variable leadership is inserted as second order mediator in the model.

Consistent with the objective of the study, the proposed hypotheses for testing are:

- H1: Intellectual stimulation is positively related to job satisfaction.
- H2: There is a positive relationship between charisma or inspirational motivation and job satisfaction among employees in the organization.
- H3: Individualized consideration is negatively related to job satisfaction.
- H4: Transformational leadership style has positive mediating effect to the job satisfaction.

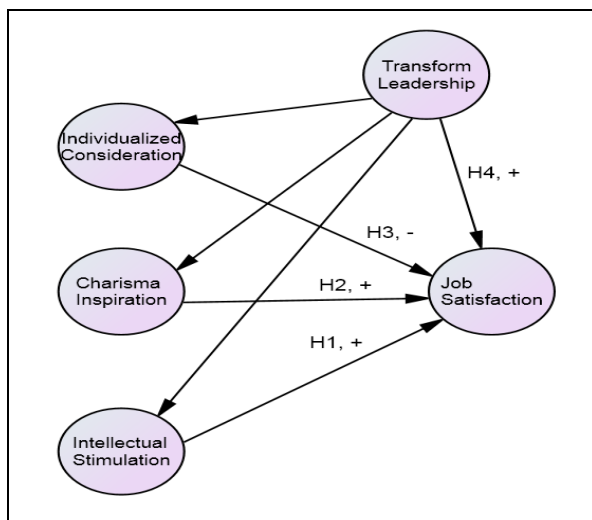


Figure 3-1: Proposed Research Framework and Hypothesis

Methodology

Sampling and Instrument

Respondents in this study are 100 staffs of an academic institution in Malaysia who have completed and returned a questionnaire that contained measures of the model constructs of concern. The respondents consist of 60% female and 40% male from various races and lengths of teaching experience. The age of respondents is categorized into 6 categories from the youngest at 24 years old to near retirement age at 54 years old.

Each variable in the model constructs is measured using previously developed instruments based on 5-facet Likert scale, while the demographic data is measured using ordinal scale.

Job Satisfaction is measured by multidimensional 5-facet sub-variables or dimensions (D1 to D5) using Likert scale from 1 (very disagree) to 5 (very agree). Independent variables, charisma/

inspiration motivation is measured by 4-facet dimensions or items (A1 to A4); individualized consideration by 10-facet items (B1 to B10); and intellectual stimulation by 4-facet dimensions (C1 to C4).

The hypothesized model constructs of the variables in the form of path diagram have been generated using SPSS Amos package and presented in Figure 4-1. This diagram shows the initial results of the standardized estimates and goodness of fit for the model prior to data screening and analysis.

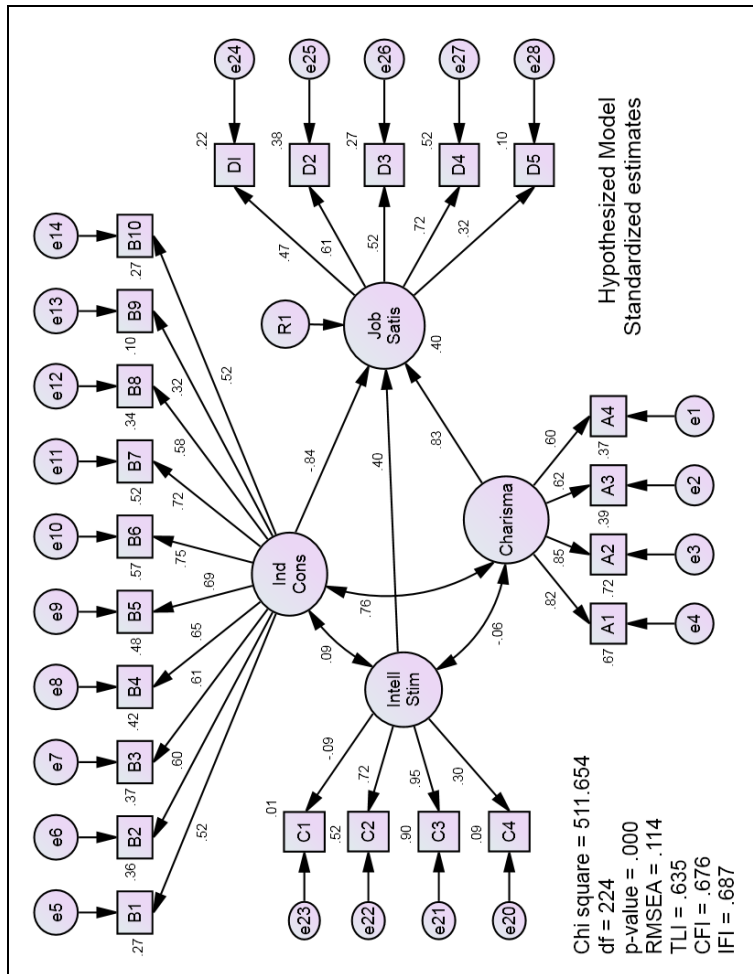


Figure 4-1 : Initial Path Diagram for the Hypothesized Model

(Notes: JobSatis = Job Satisfaction; Charisma = Charisma/Inspirational Motivation; Ind Cons = Individual Consideration; and IntellStim = Intellectual Stimulation. Figures on the arrows are standardized regression estimates, and covariances for double arrows).

Data Screening and Analysis

The collected data samples are coded into SPSS Statistics package for validation and screening for missing data, outliers and testing for normality. The data sample is further tested with SPSS Amos software for data reliability, internal consistency and other tests. There is no missing data and outlier sighted in the dataset after we have ran descriptive statistics analysis tests. The next test is the normalization test using z-score calculation.

The results from normalization test shows that several sub-variables or items are not normally distributed and have to be transformed or normalized due to its calculated z-scores are more than critical values ± 1.96 (.05 significance level). The new path diagram after data normalization process is illustrated in Figure 4-2. The transformed items for individualized consideration are B2 and B9; C4 for intellectual stimulation; A3 and A4 for charisma/inspiration; and D2 for job satisfaction.

The results from standardized estimates of the normalized data in Figure also confirm that our transformed dataset have passed homoscedasticity test (covariances between independent variables (IV) are less than 0.8 benchmark - $IS \leftrightarrow IC = .10$, $IC \leftrightarrow CI = .74$, $IS \leftrightarrow CI = -.06$).

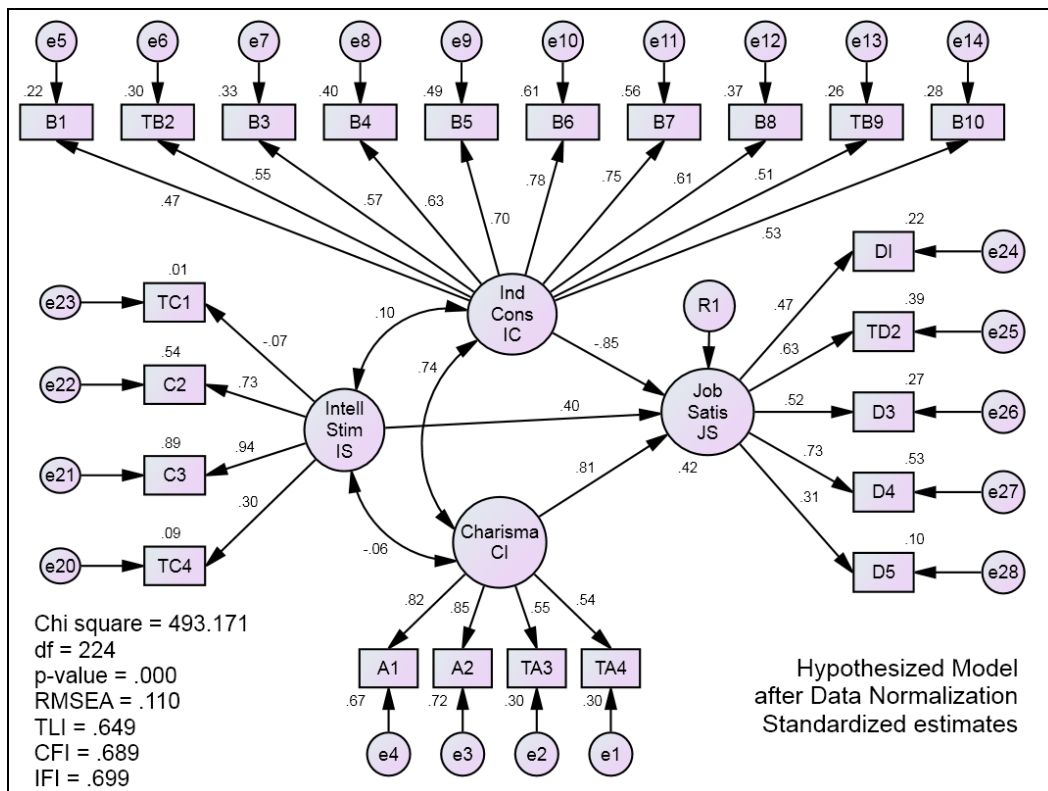


Figure 4-2: Model Path Diagram after Data Normalization Process

Research Findings

Respondents' Profile

The respondents' age is categorized into 6 age groups in which 30.0% of respondents' age are within 35 to 40-year of age group, or 61.0% of total respondents are below 40-year of age. More than half of total respondents are working with the organization for more than 10 years. Majority of the respondents are Malay (54.0%), followed by Chinese (33.0%), Indian (6.0%), and Siamese (7.0%).

Descriptive Statistics

The summary of the mean scores and standard deviation for each of the three dimensions of transformational leadership is depicted in the Table 5-1. The results indicate that the respondents perceive higher mean scores in all three dimensions of the transformational leadership style with mean 4.045 on 5-point Likert scale and standard deviation of 0.334. Job satisfaction mean is also reported to be above average (mean 3.362, standard deviation 0.334), meaning that the respondents perceive their job satisfaction higher as well.

Data reliability and internal consistency tests are conducted by means of Cronbach's alpha using SPSS statistics and counter checked by calculation of composite reliability using SPSS Amos. Item C1 for intellectual stimulation (IV) has to be deleted due to its Cronbach's alpha is less than the critical point of 0.6 (Hair, et.al., 2010). After deletion of C1, the new calculated Cronbach's α for intellectual variable is 0.648, which is above the critical point. Therefore, the sample data is reliable enough for the next stage of convergent validity tests and analysis.

Table 5-1: Data Reliability and Internal Consistency

Variable	No. of Item	Mean	Std. Dev	Cronbach α (alpha)	Composite Reliability
Charismatic/Inspirational Motivation (IV)	4	4.2050	.49413	.811	.814
Individualized Consideration (IV)	10	3.9490	.40539	.841	.919
Intellectual Stimulation (IV)	4	3.9800	.46829	.548	.624
	3*			.648	.842
Transformational Leadership Mean		4.0447	.33381		
Job Satisfaction (DV)	5	3.3620	.53386	.655	.624
Total Items	21				

Variable	No. of Item	Mean	Std. Dev	Cronbach α (alpha)	Composite Reliability
Notes: Mean is based on a 5-point Likert scale from 1 (very disagree) to 5 (very agree). DV = Dependent Variable; IV = Independent Variable *Sub-variable C1 for Intellectual Stimulation is deleted in order to get Cronbach α > 0.6					

Convergent Validity (Confirmatory Factor Analysis -CFA)

The next stage for the data analysis is convergent validity test by means of confirmatory factor analysis (CFA). Selection of items in the variables is conducted by means of modification index (MI). The item that is having highest MI value will be deleted first until the target goodness of fits is met. All goodness of fit indicators have passed the cut-off point as stipulated in (Hair, et.al., 2010), but two factor loadings for IS→TC4 (.29) and JS→D5 (.33) are less than cut-off point of 0.5. Therefore, both items TC4 and D5 have to be deleted from the model in order to get the new revised model, which is shown in Figure 5-2. It is confirmed that the regression estimates or factor loadings of all manifesting observed variables or items are well above critical point of 0.50 (Hair, et.al., 2010). The remaining items for independent variables charisma/ inspirational motivation are 3 items (A1, TA3 and TA4); 6 items for individual consideration (B4, B5, B6, B7, TB9 and B10); and 2 items for intellectual stimulation (C2 and C3). For dependent variable job satisfaction, there are 2 items remaining (TD2 and D3).

Therefore, the revised structural model of transformational leadership and job satisfaction relationship has passed convergent validity test to proceed for composite reliability test.

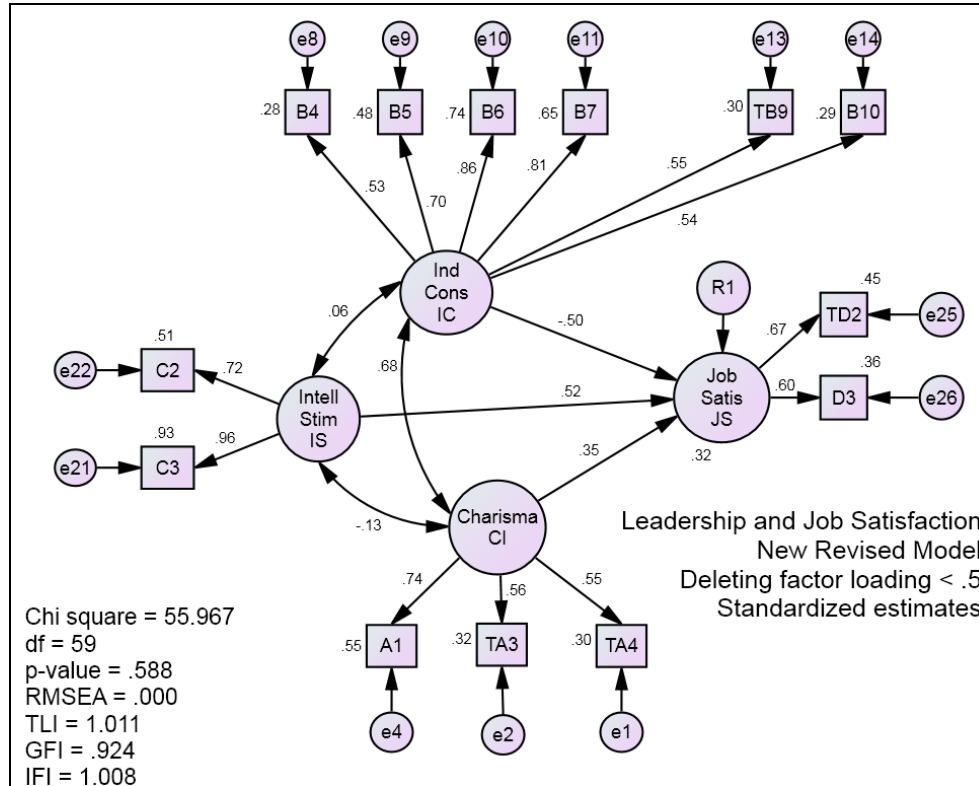


Figure 5-2: Path Diagram for New Revised Model of Transformational Leadership Style and Job Satisfaction Relationship

Composite Reliability

Composite reliability is calculated from the results of factor loading obtained in the confirmatory factor analysis (CFA) of the revised structural model which have been conducted previously. The formula to calculate composite reliability is as follows:

$$\text{Composite Reliability} = \frac{(\sum \text{Standardized Loading})^2}{(\sum \text{Standardized Loading})^2 + \varepsilon \cdot \sum j}$$

Where $\varepsilon \cdot \sum j$ is the sum of standard error for factor loading of the items. The results of

composite reliability calculation for each remaining items in the variables for the revised model are presented in the Table 5-1 above. All of remaining items have passed composite reliability with values well above critical value of 0.6 (Hair, et.al, 2010) to confirm that the revised model has a composite reliability characteristic to proceed to nomological validity test.

Nomological Validity

Correlations between constructs obtained in the new revised model are tested for nomological validity to ensure that the underpinning measurement theory of the model makes sense such that correlations must be positive or negative in accordance to the stipulated theory (Hair, et.al., 2010). The correlations and correlation square matrix between constructs are tabulated in Table 5-2.

The results support the prediction that these constructs are positively related to one another except for intellectual stimulation - charisma/ inspirational motivation and intellectual consideration – job satisfaction which is negatively related. Specifically, charisma/ inspirational motivation and individualized consideration both have significant relationship with intellectual stimulation, and also job satisfaction to charisma and individualized consideration correlations. The correlation estimate between individualized consideration and charisma/ inspirational motivation is positive but not significant (p=.468), and the same with job satisfaction and intellectual stimulation correlation (p=.193). Taking into consideration that the other correlations are consistent, this two exceptions are not a major concern. Therefore, it can be concluded that nomological validity is substantiated for all measures used in this study and the model therefore, can be preceded to goodness of fit testing.

Table 5-2: Standardized Correlation and Correlation Square Matrix between Constructs

Exogenous	CI	IC	IS	JS
Charisma/ Inspiration (CI)	1			
Individual Consideration (IC)	.684 (.468)	1		
Intellectual Stimulation (IS)	**-.129 (.017)	** .063 (.004)	1	
Job Satisfaction (JS)	** .057(.003)	**_ .226(.051)	.439(.193)	1
Notes: **Correlation is significant at 5% significant level. Correlation square is in the bracket.				

Goodness of Fit of Structural Model

With the measurement model specified and passed all the required reliability and validity tests, we have come to the crucial decision whether the measurement model that we have specified is a valid model. It is done by establishing acceptable levels of goodness-of-fit for the measurement model. To arrive to the structural model, confirmatory factor analysis (CFA) was conducted on every construct and measurement models (see Table 5-3). The goodness of fit is the decision to see the model fits into the variance-covariance matrix of the dataset. The CFA,

measurement and structural model has a good fit with the data based on assessment criteria for absolute measures (CMIN, Df, p-value, GFI, and RMSEA)¹. All CFAs of constructs produced a relatively good fit as indicated by the goodness of fit indices such as CMIN/df ratio <2.0; p-value > .05; GFI>.90; and RMSEA of values less than .08 (Hair, et.al., 2010). The results of absolute measures of the revised and new revised models are clearly surpassed the cut-off values, to confirm that the structural model is highly fit the sample data.

Incremental fit measures assess how well the estimated model fits relative to some alternative baseline model, which is measured by tools such as comparative fit index (CFI) and Tucker-Lewis index (TLI). The CFI is normed so that the values fall between 0 and 1, with higher value indicating better fit. The cut-off point for CFI is .90. TLI value is not normed, thus its value may fall below 1 or above 1. A model with good fit is typically with TLI values that approach 1 (Hair, Black, Babin, & Anderson, 2010).The results of CFI and TLI for both revised and new revised models are above 1.0 indicating very good fit models.

Parsimony measure is to provide information about which model among a set of competing models is the best, considering its fit relative to its complexity. Basically, it is conceptually similar to the notion of an adjusted R² in the sense that they relate model fit to model complexity. More complex data are expected to fit the data better. The result on parsimony normed fit index (PNFI) in Table 5-3 shows that there is no different in model fit between revised and new revised models.

Results on incremental fit and parsimony measures have confirmed that there is no different in goodness-of-fit between revised and new revised models. Therefore, we may use revised model for hypothesis testing considering total items remained is higher for revised model as compared to the new revised model.

Table 5-3: Goodness of Fit Analysis - CFA of Models (N = 100)

Final Model	Charisma (1)	Ind Cons (2)	IntellStim (3)	ExoVars (1,2,3)	Endo Var (Job Sat)	Hypo Model	Revised Model	New Revised Model
Items Remain	8	12	8	27	8	52	36	32
Absolute Measures								

¹ CMIN = chi square; Df = degree of freedom; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation. Absolute fit indices are direct measure of how well the model specified by the researcher reproduces the observed data. For that reason, absolute fit indices provide the most basic assessment of how well the researcher’s theory fits the sample data (Kenny & McCoach, 2003).

Final Model	Charisma (1)	Ind Cons (2)	IntellStim (3)	ExoVars (1,2,3)	Endo Var (Job Sat)	Hypo Model	Revised Model	New Revised Model
CMIN	0.628	12.516	7.374	56.094	2.781	511.654	84.332	55.967
Df	2	9	2	51	2	224	84	59
CMIN/Df	0.314	1.391	3.687	1.100	1.391	2.284	1.004	0.949
p-value	0.731	0.186	0.025	0.290	0.249	0.000	0.469	0.588
GFI	0.997	0.959	0.964	0.918	0.987	0.677	0.905	0.924
RMSEA	0.000	0.063	0.165	0.032	0.063	0.114	0.006	0.000
Incremental Fit Measures								
CFI	1.000	0.982	0.927	0.985	0.971	0.676	0.999	1.000
TLI	1.035	0.969	0.782	0.981	0.913	0.635	0.999	1.011
Parsimony Measure								
PNFI	0.332	0.564	0.303	0.666	0.305	0.489	0.658	0.658
Notes: Ind Cons = Individualized consideration; IntellStim = Intellectual stimulation; Exovars = Exogenous variables; Endo vars (Job Sat) = Endogenous variable (Job satisfaction); Hypo model = Hypothesized (initial) model.								

Hypotheses Results

The direct impact of revised model based on standardized regression weights are presented in Table 5-4. Only two out of 4 hypotheses are significant at 95% confidence level. In hypothesis H₁, individualized consideration is negatively related to job satisfaction. It can be explained that a transformational leader who emphasizes more on individual consideration rather than promoting team works will make the rest of his followers' job satisfaction to decrease.

This result is inconsistent with the findings of existing studies which reported a positive relationship between individualized consideration and job satisfaction (Suliman Ibraheem, et.al., 2011) and (Voon, et.al., 2011). In the second hypothesis, H₂ the result shows that there is a positive relationship between intellectual stimulation and job satisfaction, which is consistent with the findings of several other researchers (Suliman Ibraheem, et.al., 2011), (Fatima, et.al., 2011), (Emery & Barker, 2007) and (Voon, et.al, 2011). Hypothesis H₄ will be tested in the mediating effect analysis for the revised model.

Table 5-4: Direct Impact of Revised Structural Model: Standardized Regression Weights

H	Endo		Exo	StdEst	S.E	t-value	p-value	Status
H ₁	Job Satisfaction	←	Individualized Consideration	-.510	.157	-1.966	.049	Sig*
H ₂	Job Satisfaction	←	Intellectual Stimulation	.548	.598	2.227	.026	Sig*
H ₃	Job Satisfaction	←	Charisma/ Inspiration	.369	.120	1.372	.170	Not Sig.
H ₄	Job Satisfaction	←	Leadership** (as mediator)	-.040	.120	-.233	.815	Not Sig.

Note. H = Hypotheses. Exo = Exogenous Variable, Endo = Endogenous Variable.

S.E = Standard Error. StdEst = Standard Estimates.

*Significant at 95% confidence level. **SMC (R²) for leadership = .000

Mediating Effect Analysis of Revised Model

The effect of leadership as a mediator for job satisfaction is tested on second order path diagram as depicted in the Figure 5-3. The model basically has passed the goodness-of-fit tests for transformational leadership style as a mediator in relationships between individualized consideration, charisma/ inspirational motivation and intellectual stimulation with job satisfaction (p-value = .027; RMSEA = .058; TLI = .908)

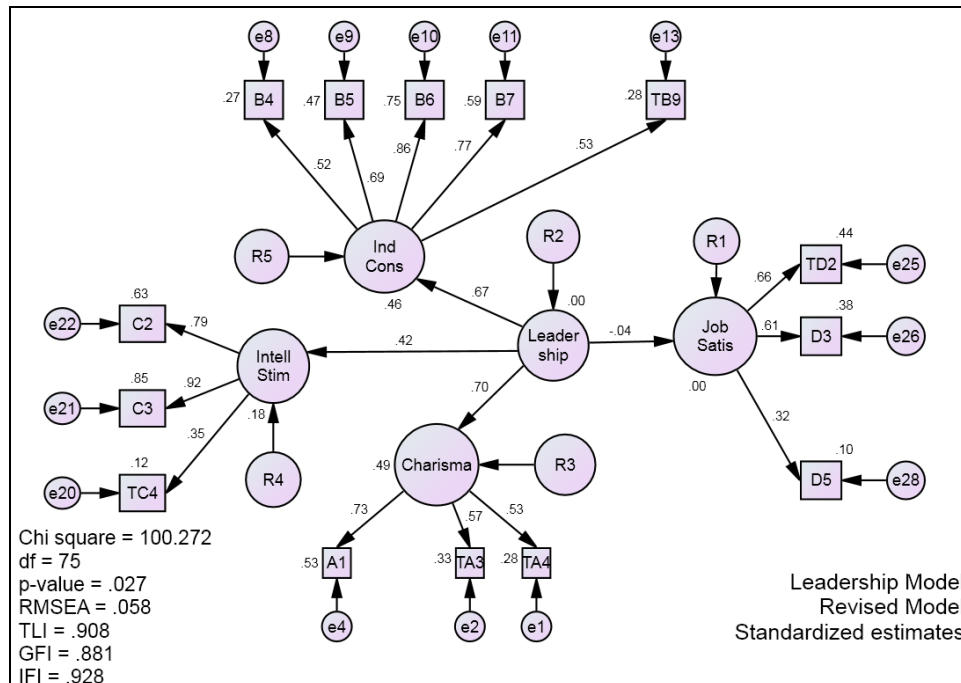


Figure 5-3: 2nd Order Path Diagram for Leadership as a Mediator in the Revised Model

The results of regression weights between the constructs are graphically presented in Figure 5-4, which shows a weak and negative relationship between transformational leadership and job satisfaction ($\beta = -.04$, $t\text{-value} = .233$, $p = .815$). The calculated result is also shown in Table 5-4. Therefore, hypothesis H_4 is not significant, meaning that leadership as a single independent variable is not related to job satisfaction. Nevertheless, the relationships between leadership and individualized consideration, intellectual stimulation, and charisma/ inspirational motivation are positively related. This is to confirm that they are the proxy of transformational leadership style.

Figure 5-4: Regression Weight between Constructs of Transformational Leadership as a Mediator

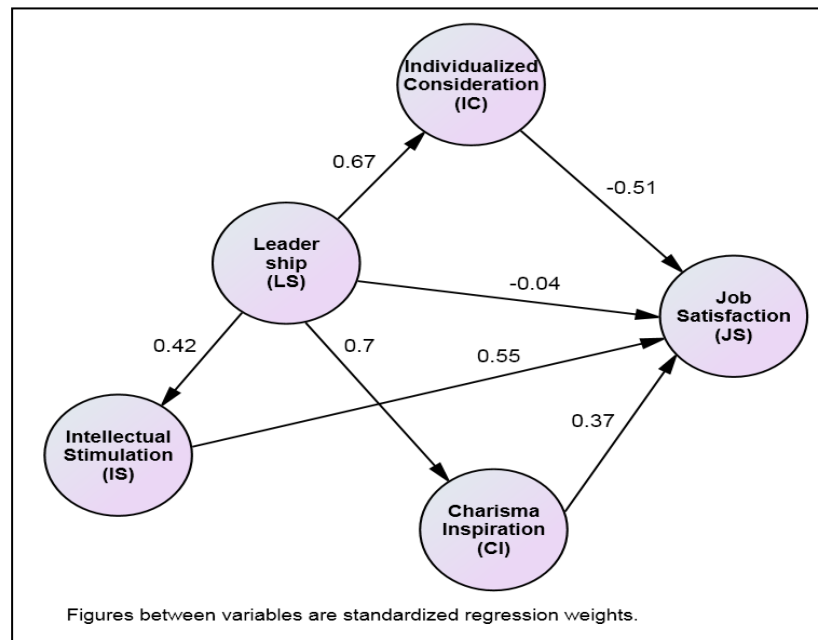


Table 5-5 provides the result of comparison between regression weights (β) of direct and indirect paths of leadership as a mediator in the relationship between transformational leadership style and job satisfaction. All of three paths show that the indirect impacts are higher than the direct impacts, indicating leadership is an insignificant mediator for the relationships.

Table 1-5: Leadership as a Mediator

Direct Path	Indirect Path	Result
LS → JS = -.04	LS → IC → JS = .67 x .51 = .342	Indirect > Direct
LS → JS = -.04	LS → IS → JS = .42 x .55 = .231	Indirect > Direct
LS → JS = -.04	LS → CI → JS = .70 x .37 = .259	Indirect > Direct

Hypothesized and Revised Models Comparison

There is a plausible difference in the results of hypothesized and revised models. With exception of hypothesis H₄, all other three hypotheses are highly significant at more than 95% significance level. Whereas in the revised model, only two (H₁ and H₂) are significant at more than 95% confidence level. That is to confirm that intellectual stimulation is highly positive related to job satisfaction (H₁), and in contrast, individualized consideration is negatively related (H₂).

Square multiple correlations (SMC) or R² for job satisfaction in revised model is 0.347, meaning that the model explains 34.7% of the variance in job satisfaction variable. In the hypothesized model, variance in job satisfaction is 41.7% explained by the model, a reduction by 7.0%.

In the mediating effect of transformational leadership style, we have found that in both models (hypothesized and revised models); transformational leadership style is not a significant mediator (H₄). Squared multiple correlation (SMC) or R² in the both models does not explain the variance of job satisfaction at all.

Discussion and Implications

This study endeavors to scrutinize the contributing relationships between three proxies of transformational leadership style to job satisfaction in an academic institution in Malaysia. The underpinning transformational leadership style model is conceptualized from a model proposed by (Burns, 1978) and (Bass, 1985). As expected, the hypothesized model has not passed goodness-of-fit tests (p-value=0.000, p <0.001) in the first run. The implication from this is that hypothesized model could not be generalized to the population. This is expected because the data sample was only collected from one small concentrated area only.

The revised model has eventually passed goodness-of-fit tests with near perfect results for absolute and incremental fit measures (chi square to degree of freedom ratio 1.004; p-value 0.469; RMSEA 0.006; CFI 1.000) indicating a credible transformational leadership style and job satisfaction model constructs. However, only one out of three dimensions for transformational leadership has positive effect on job satisfaction, i.e. intellectual stimulation ($\beta = .548$; t-value = 2.227; p = .026). Individualized consideration, in contrast exhibits a strong negative relationship with job satisfaction ($\beta = -.510$; t-value = -1.966; p = .045). The other contrasting result is the insignificance of transformational leadership as a mediator for the relationships between its dimensions and job satisfaction. Statistically, independent variable charisma/ inspirational motivation probably require more additional items in the questionnaire in order to make it statistically significant in the hypothesis testing.

Job satisfaction among the staffs at the academic organization in this study is neither satisfied nor dissatisfied with their jobs because its statistic mean is 3.362 (std. dev. 0.534) on the Likert's scale from 1 (very dissatisfied) to 5 (very satisfied). This is consistent with the studies undertaken by (Medley & La Rochelle, 1995) who derive the implication from Herzberg's theory

of job satisfaction. According to (Herzberg, 1971), satisfaction of both motivators (items such as professional status, interaction and autonomy) and hygiene factors (for items related to pay, task requirements and organizational policies) are necessary for high levels of job satisfaction. This result implies that the necessary motivators and hygiene factors to enhance job satisfaction among the staffs are probably lacking in this organization.

The statistical mean for transformation leadership is 4.045 (std. dev. 0.334) to indicate that the staffs in this study favour transformational leadership style in their organization. The implications of the findings for organization can be elucidated from various perspectives. From human resource perspective, employees or followers of a leader are one of the most important assets in any organization to look after. Transformational leader is expected to play an active role in promoting team works among the employees or followers so as to increase their job satisfaction. The employees who are satisfied with their jobs will be in less probability to leave the organization. They are the best people to be intellectually stimulated for realizing organizational mission and goals.

Leader, from organizational management perspective is one of important agents for change. An organization needs a competent leader in order to lead, transform and motivate their job satisfied employees or followers in the management and in realizing the goals and objectives of the organization. A leader with transformational leadership style has this kind of leadership requirements (Bass & Riggio, 2006).

Conclusion

Relationship between transformational leadership style and job satisfaction in an academic institution in Malaysia has been conducted using structural equation modeling (SEM) approach by means of confirmatory factor analysis (CFA).

The final revised model is perfectly fit in terms of goodness-of-fit (GOF) indicators, indicating a very credible transformational leadership style and job satisfaction model of construct. Based on the SMC result, the model explains 34.7% in variance of job satisfaction. However, only two out of four hypotheses tested are statistically significant at 95% confidence level. Inconsistent with the existing research findings, we have found that individualized consideration is negatively related to job satisfaction. This result can be explained that a transformational leader who emphasizes more on individualized consideration rather than promoting team works will make the rest of his followers' job satisfaction to decrease.

Therefore, the findings suggest that an organization needs to have a worthy transformational type leader in order to provide an effective team works to increase job satisfaction among the employees or followers as well as for realizing organizational mission and goals.

References

Avolio, B. J. (1999). *Full Range Leadership Development: Building the Vital Forces in*

Organization. Sage, California: Thousand Oak.

Avolio, B. J., Waldman, D., & Yammarino, F. (1991). Leading in the 1990s: The Four I's of Transformational Leadership. *Journal of European Industrial Training*, 15(4), 9-16.

Avolio, B., & Bass, B. (2002). *Developing Potential Across a Full Range of Leadership cases on Transactional and Transformational leadership*. Lawrence Erlbaum Associates. N.J: Mahwah.

Bartolo, K., & Furlonger, B. (2000). Leadership and Job Satisfaction among Aviation Fire Fighters in Australia. *Journal of Managerial Psychology*, 15(1), 187-195.

Bass, B. (1994). *Improving Organizational Effectiveness through Transformational Leadership*. London: Sage Publications.

Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. New York: Free Press.

Bass, B., & Avolio, B. (1994). *Improving Organizational Effectiveness through Transformational Leadership*. Sage, California: Thousand Oaks.

Bass, B., & Riggio, R. E. (2006). *Transformational Leadership (2nd ed.)*. Mahwah, N.J.: Lawrence Erlbaum.

Bono, J. E., & Illies, R. (2006). Charisma, Positive Emotion and Mood Contagion. *Leadership Quarterly*, 17, 317-334.

Burns, J. (1978). *Leadership*. New York: Harper and Row Publishers.

Emery, C. R., & Barker, K. J. (2007). The Effects of Transactional and Transformational Leadership Styles on the Organizational Commitment and Job Satisfaction of Customer Contact Personnel. *Journal of Organizational Culture, Communication and Conflict*, 11(1), 77-90.

Fatima, B., Ahmad, U., & Asvir, N. (2011). Effect of Transformational Leadership on Employees' Job Satisfaction and Organizational Commitment in Banking Sector of Lahore (Pakistan). *International Journal of Business and Social Sciences*, 2(18), 261-266.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective, 7th Edition*. New Jersey: Pearson Educational Inc.

Herzberg, F. (1971). *The Motivation to Work*. New York: John Wiley.

Judge, T. A., & Klinger, R. (2003). Job Satisfaction: Subjective Well-being at Work. In Borman, Ilgen, & Klimoski (Eds.), *Handbook of Psychology: Industrial and Organizational Psychology* (pp. 393-413). N.J: John Wiley.

Jung, D., & Avolio, B. J. (2000). Opening the Black Box: An Experimental Investigation of the Mediating Effects of Trust and Value Congruence on Transformational and Transactional Leadership. *Journal of Organizational Behavior*, 21(8), 949-964.

Kenny, D. A., & McCoach, D. B. (2003). Effect of the Number of Variables on Measures of Fit in Structural Equations Modeling. *Structural Equations Modeling*, 10(3), 333-351.

Lashbrook, W. (1997). Business Performance, Employee Satisfaction and Leadership Practices. *Performance Improvement*, 36(5), 29-33.

Locke, E. A. (1976). The Nature Causes of Job Satisfaction. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 1297-1343). Chicago: Rank McNally.

Medley, F., & La Rochelle, D. (1995). Transformational Leadership and Job Satisfaction. *Nursing Management*, 26, 64-65.

Niehoff, B. P., Enz, C. A., & Grover, R. A. (1990). The Impact of Top Management Actions on Employee Attitudes and Perceptions. *Group & Organization Studies*, 15(3), 337-352.

Shim, S., Lusch, R., & O'Brien, M. (2002). Personal Values, Leadership Styles, Job Satisfaction and Commitment: An Exploratory Study among Retail Managers. *Journal of Marketing*

Channels, 10(1), 65-87.

Shim, S., Lush, R., & O'Brien, M. (2002). Personal Values, Leadership Styles, Job Satisfaction and Commitment: An Exploratory Study among Managers. *Journal of Marketing Channels*, 10(1), 65-87.

Sivanathan, N., & Fekken, G. C. (2002). Emotional Intelligence, Moral Reasoning and Transformational Leadership. *Leadership and Organizational Development Journal*, 23(3/4), 198-204.

Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The Measurement of Satisfaction in Work and Retirement*. Chicago: Rand McNally.

Spector, P. (1997). *Job Satisfaction: Application, Assessment, Causes and Consequences*. California, USA: Sage Publications, Inc.

Suliman Ibraheem, S. M., Hussein, A. A., & Ayat Mohammad, E. B. (2011). The Relationship between Transformational Leadership and Employees' Satisfaction at Jordanian Private Hospitals. *Business and Economic Horizons*, 5(2), 35-46.

Voon, M. L., Lo, M. C., Ngui, K. S., & Norshahlela, B. A. (2011). The Influence of Leadership Styles on Employees' Job Satisfaction in Public Sector Organizations in Malaysia. *International Journal of Business, Management and Social Sciences*, 2(1), 24-32.

Weiss, H. M. (2002). Deconstructing Job Satisfaction: Separating, Evaluation, Beliefs and Effective Experiences. *Human Resource Management Review*, 22, 173-194.

Yousef, D. A. (2000). Organizational Commitment: A Mediator of the Relationships of Leadership Behavior with Job Satisfaction and Performance in non-Western country. *Journal of Managerial Psychology*, 15(1), 6-24.