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Management Tools for Mongolian Higher Education Administrators

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Introduction

Since 1993, Bain & Company¹ a global consulting firm; has been surveying senior executives around the world, questioning them as to the most effective management tools they use and how well those tools have performed for them and their organizations. They have a database of 13,000 respondents from 70 countries. Their objective is to provide international managers with information about the most current and effective tools available to improve their organizations. They focus on 25 tools each year and the Governance Team of the CSHER have identified those tools which are most applicable and adaptable to higher education institutions. These tools we are highlighting below are relevant to Mongolian higher education institutions, are topical and are measurable.

The Governance Team has identified the following tools from Bain & Company's top 25 which could be useful for senior leaders of Mongolian higher education institutions:

- Customer Relationship Management (Student Relationship Management)
- Benchmarking
- Strategic Management²
- The Balanced Scorecard
- Mission and Vision Statements (see footnote 2 below)
- Total Quality Management

A summary of these tools³ was also presented at the 8 bi-annual Research Conference for Mongolian Rural HEIs held May 26 – 28, 2016 at the Dornogobi campus of the Mongolian National University of Medical Sciences.

¹ <http://www.bain.com/>

² See also Guidelines for Strategic Management for Mongolian Higher Education Institutions, which was also produced by the Consultancy Services Governance Team.

³ Appendix 1 – PowerPoint Presentation: Management Tools for Rural Higher Education Institutional Administrators

Student Relationship Management



The need for an effective “Customer Relationship Management Program” was ranked as the primary requirement for success in today’s dynamic business environment by international business leaders in the 2015 Bain survey. International business leaders tended to link growth and increased market share to their increased efforts to better understand their customers. Leading global companies found that improving customer loyalty can help raise revenue and profits. They expressed concerns that without specialized initiatives focused on customer needs, customers would easily switch “loyalties” to

competitors. These management concerns expressed by retailers, bankers, insurers, manufacturers and utilities, are also concerns for educators; forcing leaders in higher education institutions to search for ways to better understand their students’ desires and prevent them from defecting to rival institutions. .

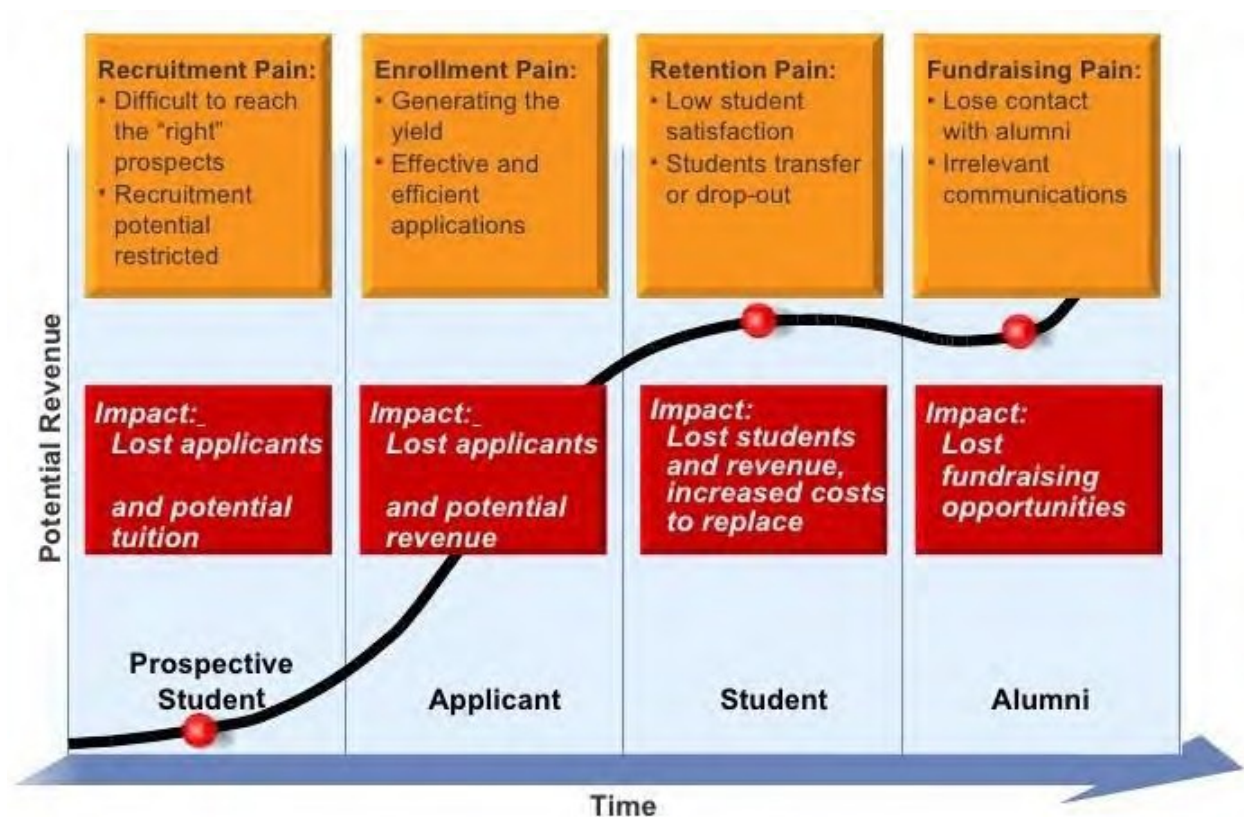
Today’s students are demanding a tailored learning journey in an education market that is more commercialized than ever, and higher education Institutions need to become more efficient and provide a better quality service to deliver an exceptional student experience to remain competitive. An effective student relationship management programs involves synchronizing a number of different processes within the institution to improve the student experience, reduce dropout rates, and improve organizational efficiency. When student data is scattered across an institution, in different departments and with various file formats; maximizing the information available and gaining insights into the lives of our students is critical to the effective administration of the institution.

While today’s institutional Information systems support essentially academic management processes like student’s registration, student’s management, student’s marks, among others; these systems do not usually permit the closely monitoring of student’s academic activities, the evaluation of their academic success and the support of academic activities concerned with teaching and tutoring. It is, however, largely accepted that there exists a strong correlation between the close monitoring of students’ activities and the scholar success promotion. Consequently, to support the teaching and tutoring processes it is essential to acquire knowledge about students. This knowledge will allow institutions to adopt adequate and effective actions and make the right decisions in order to closely follow and improve the students’ activities. This is an integral component of student relationship management.

Student Relationship Management is a proactive management approach as it brings together different elements of data from various sources to create a single, holistic view of each student across departments, student services and independent systems such as finance and accommodation. It is designed to impact on every connection in the student lifecycle and seamlessly integrate with an institute's current projects and systems, avoiding duplication and ensuring a fluid, step-by-step process in student management. Smarter student management is predictive analytics that look at the mix of very different metrics on students and from this data can predict with confidence their potential for failure or success, enabling action to bring proactive support to the learner and reduce attrition.

"Attract, Retain, Maintain" (Figure 2 below) is the objective of a successful student relationship management program. It is vital to attract the right students into the institute, retain and support them during their studies, and maintain their advocacy after course completion as an active institutional alumni. Failing to do so jeopardizes the long term success of the institution.

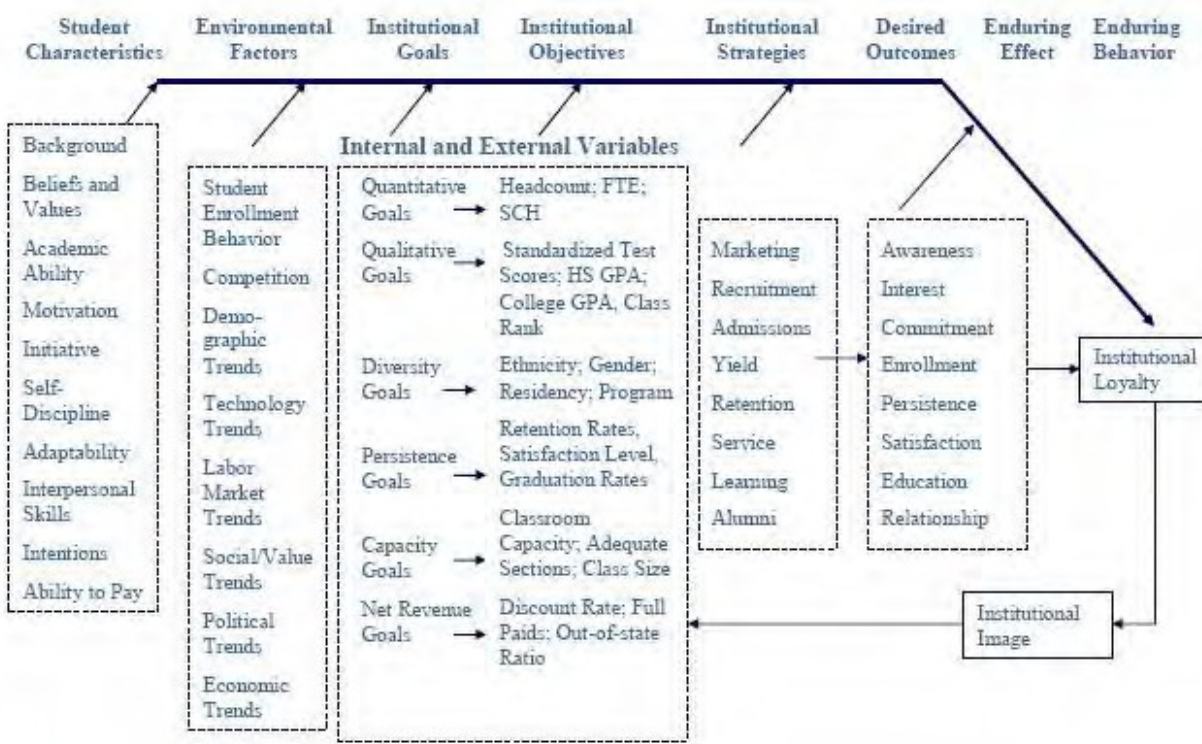
Figure 2: Life-long Student Relationship Management Model



Attracting the Right Students

Customer orientation has traditionally been underemphasized in higher education institutions compared to profit-orientated organizations. However, the increased turmoil in the higher education marketplace is forcing colleges and universities to utilize a more customer-oriented philosophy in delivering their services, and those who understand these principles stand a better chance of achieving their objectives more effectively. Even though one might hesitate to call students “customers” because of the student-teacher relationship, this still does not change the fact that without students, there would be no need for higher education institutions. Hence, the need to manage college enrollments from the point of initial student contact to the point of graduation has become increasingly important. In this dynamic, competitive environment the future success of educational establishments rests on their ability to differentiate themselves and build meaningful relationships not only with existing students but with potential students as well. To achieve this, internal systems need to be maximized to their full potential through the integration and use of an internal student relationship program which can pull together disseminated pieces of information from all types of databases and sources. Figure 1 below presents a model student enrollment management archetype.

Figure 1: Student Enrollment Management Archetype



With an effective student relationship management program, institutions can create personalized student communications at every touch-point and at every stage of the student experience to support student success. Such communications, if properly structured, give institutional leaders the right insight on students, at the right time, to enable them to make solid decisions. An institution can also rapidly improve marketing efficiency through highly personalized, targeted and relevant messages including email, advertising, search, website navigation, mobile and social media; addressed to potential students. Figure 4 below highlights the importance of student management to institutional success in comparisons with other major components of the institutional value chain.

Figure 4: Components of the Institutional Value Chain



For example, a prospective student may visit the institution's website looking at the history undergraduate course, rugby team and student accommodation facilities. When that student visits again, the homepage will reflect their interests and provide opportunities to explore these in more detail or to talk directly with the course lecturer or the rugby captain to gain true insight and answer their individual questions. This creates a highly individual

and tailored journey into the institution and is achieved through accurate profiling of desired candidates and sophisticated web behavior analytics, which not only raises brand awareness but also, perhaps more significantly, increases admission conversion success rates.

Using an analyses framework on Facebook and other social media, Seton Hall University¹, one of the US's top Catholic universities; increased the conversion of new students in their admissions process by 18 percent, resulting in an additional \$29 million (US) in revenue, a 25 percent increase in tuition deposits in addition to improved agility in marketing and enrolment forecasts.

Sustaining and Supporting Students during Their Studies

How are today's students being supported in their academic programs in institutions of higher education? For institutions to develop an effective program to support students during the course of studies, first and foremost leaders must understand who their students are; what they want; and how they can most effectively and efficiently give it to them. Today students in higher education institutions are seeking an education that helps them enter in the job markets and they are selecting universities and colleges which meet their particular individual standards. This has necessitated a change in institutional thinking and higher education students are now seen as fee paying customers and institutions are switching from teacher-centered to student-centered approaches for attracting and retaining students. Increased global competition for higher education students has also finally convinced institutional admissions managers that retaining current students is as critical to meeting their current enrollment goals as recruiting new students.

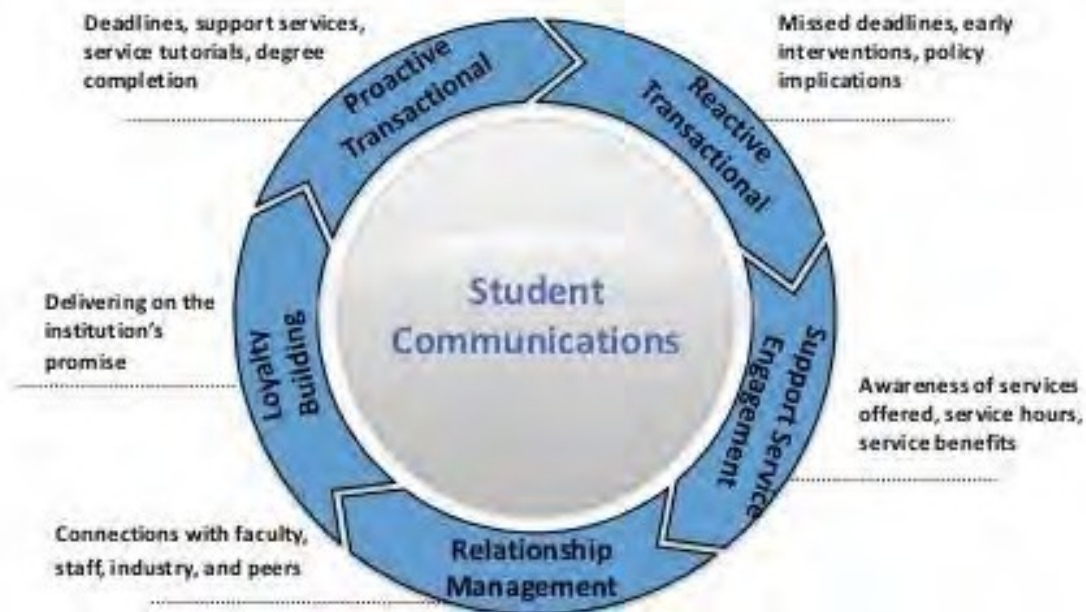
By using predictive analytics and conducting a thorough in-depth analysis of both internal and geo-demographical data, institutional leaders can better predict and target current at-risk students and significantly reduce their potential for dropout or failure by maximizing student support service resources and allocating them proactively to the students who need their guidance most. In addition, such analysis and forecasting can be used to optimize course popularity, costing and viability in order to strengthen strategic planning. Through this type of innovative analysis, Hamilton County Schools² achieved the best 'No Child Left Behind' results in its history, reducing its annual dropout rate by 25 percent and increasing its success rates by eight percent.

¹ <https://www.shu.edu/>

² According to the Hamilton County Department of Education; <http://www.hcde.org/>

Figure 3 above depicts a graphical representations of the fundamentals impacting student success. Student success generally translates into student retention and student loyalty.

Figure 3: Fundamentals Impacting Student Success



Relationship-marketing theory places student retention under the larger umbrella term of customer loyalty because repeatedly purchasing the services of a service provider is only one way for a customer to demonstrate loyalty. For example, a customer might also show their loyalty to the provider by recommending the service to others. Understanding the issues of the university student from a relationship-marketing perspective similarly involves placing the student retention within the larger framework of student loyalty. A student can demonstrate loyalty by continuing to enroll in classes at the university. They can also show their loyalty by recommending the university to others. Studies of university student loyalty have shed light on the following questions:

- How does undergraduate students' satisfaction with their university experiences relate to their retention behavior?
- How does undergraduate students' satisfaction with their university experiences relate to their loyalty behavior?
- What are undergraduate students' expectations of their university experiences?
- How does the fulfillment of undergraduate students' expectations of their university experiences relate to their retention behavior?

- How does the fulfillment of undergraduate students' expectations of their university experiences relate to their loyalty behavior?

Figure 5: Staff and the Student Relationship Management System



Figure 4 above highlights that an effective student relationship management program involves all institutional staff – administration, faculty, admission councilors, mentors research supervisors and academic councilors.

Early student retention studies in higher educational institutions have focused on academic ability as the predictor of retention. These studies reported that academic performance could only account for half of the variance in dropout rates. A growing body of research suggests that the social adjustment of students may be an important factor in predicting persistence and student retention. These studies argue that integration into the social environment is a crucial element in student commitment to a particular academic institution. Current student integration theory of persistence or retention based on the relationships between students and institutions argues that retention involves two commitments on the part of the student. The first commitment is the goal commitment to obtain a college degree.

The second commitment is the decision to obtain that degree at a particular institution (institutional commitment). Overall, the combination of the student's goal and institutional commitments affected retention at a particular institution. Under this perspective, it is important to match the student's motivation and academic ability and the institution's ability to meet the student's expectations. Attracting students, processing their applications, and guiding admitted students through the enrollment process are extremely important activities. However, treating students as partners is crucial to optimize students' experience from enrollment to graduation. In this process, a person-to person relationship between students and faculty performance, advising staff performance and classes are three of the most important variables that influence students' college experience and overall satisfaction. It is that satisfaction which influences students' intentions to stay at or leave the institution. Institutional leaders must be aware that students' satisfaction level is determined by the difference between service performance as perceived by the students and what the students expects. Given the distinguishing features of the higher education institutions, value determinants should be based on the long-term interest of students and society and institutional goals and commitments. It is the quality of the student experience and their life-long institutional relationship that benefits both the higher education institution and society. There is a symbiotic relationship between the student, the institution, and society as a whole and this must be effectively managed during the student's program of studies.

Retaining Student Involvement after Graduation

Automating alumni relationships with predictive profiling and building social collaboration tools can deliver highly relevant alumni communications and create a rich community. These better facilitate mentoring and coaching to current students and provide an ecosystem of transferred learning and more proactive links with industry. This is Student Relationship Management in its purest form – analyzing which alumni are more likely to be involved or engaged, and finding the mutually beneficial trigger points to form an on-going relationship. This is of particular importance with institutions under increasing pressure to make courses and learning more real-world and work-based related. Figure 5 below shows the components necessary to develop a successful alumni relationship program.

Following graduation a successful student relationship program promotes alumni programs that encourage contributions and endowments. Armed with profile information, institutions can easily target specific alumni for financial and volunteer opportunities. In addition, by identifying students and alumni likely to have high levels of interest in specialty, evening, and weekend courses, it's possible to create targeted marketing for continuing education programs.

Figure 6: Developing an Active Alumni Association



Student Relationship Management Software

1. **Radius by Hobsons**³: Radius offers best-in-class admissions and enrollment management CRM capabilities with robust communications tools that allow you to build dynamic, multi-step outreach campaigns to reach students with the right message at the right time.

Its seamless application management⁴ and reporting capabilities allow you to manage each stage of the admissions lifecycle - from initial inquiry through application review - and then continue building relationships with students throughout their enrollment at your institution. Radius is the only CRM platform where institutions can offer personalized service and connect with prospective students across multiple channels, including email, live chat and Naviance ActiveMatch⁵. Plus, you can extend the reach of your student

³ <http://radius.hobsons.com/student-relationship-management/>

⁴ <http://radius.hobsons.com/resource/2015/7/16/precision-decisions-optimize-your-application-process>

⁵ <http://www.naviance.com/ActiveMatchHigherEd>

services and retention efforts through our integrated suite of student success and degree planning solutions.

2. **Ellucian⁶:** Technology with a purpose. Institutions around the world don't just run on Ellucian software—they help shape it. From admissions and finance to student success and advancement, our vast customer community contributes to every advancement of our higher education software.
3. **Software Advice⁷:** Software Advice offers an excellent evaluation of a range of customer relationship management programs. Higher education institution administrators should review their selection with caution to be sure that the suggestions offered are easily customizable to academia and higher education institutions.

⁶<http://www.ellucian.com/Software/>

⁷ http://www.softwareadvice.com/crm/?layout=var_f0

Benchmarking in Higher Education



Benchmarking ranked Number 2 on the Bain & Company survey of useful management tools. Increasing competition, demands for accountability, and higher volumes of available information are changing the methods of how institutions of higher education operate in the 21st century. For higher education to enact substantial and sustainable changes in efficiency and productivity, a new way of thinking or paradigm that builds efficiency and a desire for continual learning must be integrated into institutional structures. This has necessitated the development of tools that measure or benchmark the

progress and success of these efforts. Among the improvement strategies and techniques such as Total Quality Management (TQM), Continuous Quality Improvement (CQI), and Business Process Reengineering (BPR), benchmarking has emerged as a useful, easily understood, and effective tool for staying competitive.

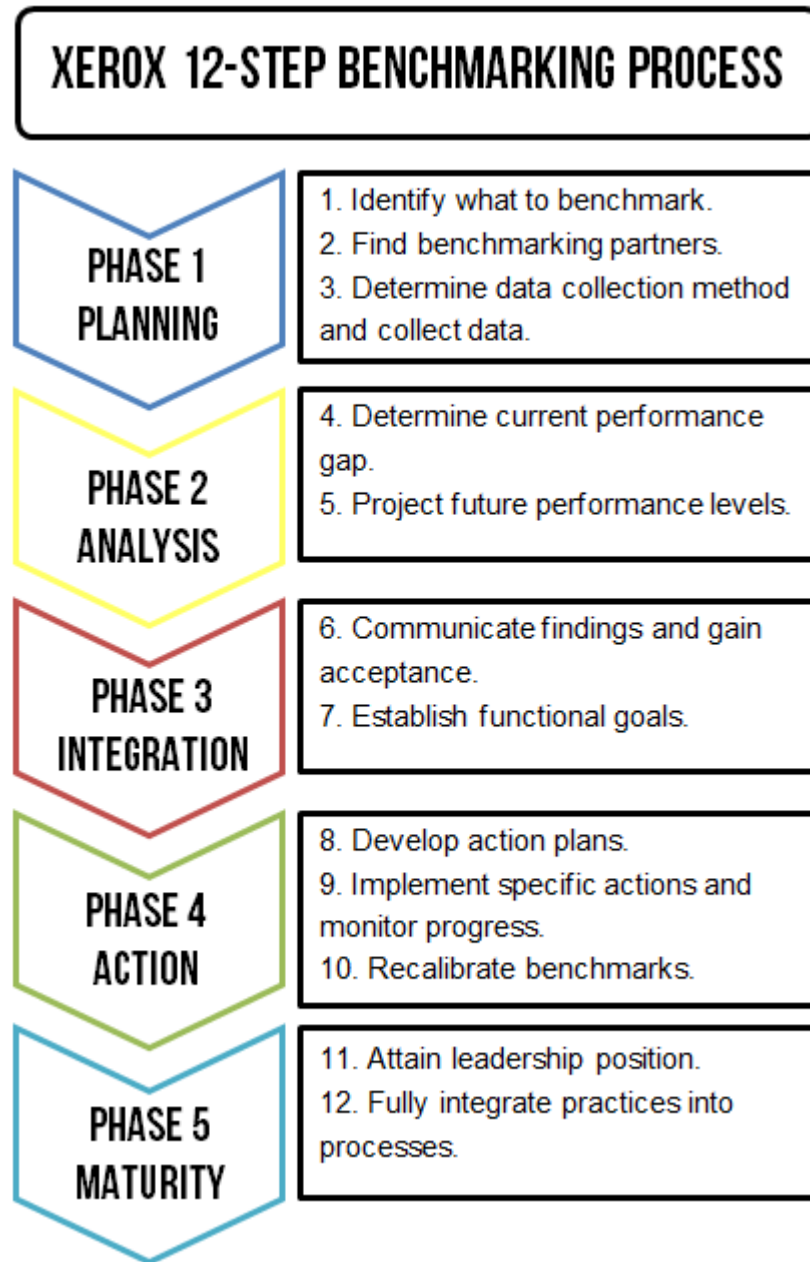
What is Benchmarking?

Although the use of comparative data has been used for years in some industries, including higher education, benchmarking as defined today was developed in the early 1980s at the Xerox Corporation (Figure 7 below). The strategy of benchmarking is important both conceptually and practically, and is being used for improving administrative processes as well as instructional models at higher education institutions by examining processes and models at other institutions and adapting their techniques and approaches where necessary. More concisely, benchmarking is an ongoing, systematic process for measuring and comparing the work processes of one organization to those of another, by bringing an external focus to internal activities, functions, or operations. The goal of benchmarking is to provide key personnel, in charge of processes, with an external standard for measuring the quality and cost of internal activities, and to help identify where opportunities for improvement may reside. Benchmarking is analogous to the human learning process, and it has been described as a method of teaching an institution how to improve. As with other quality concepts, benchmarking should be integrated into the fundamental operations throughout the organization and be an ongoing process that analyzes the data collected longitudinally. Benchmarking attempts to answer the following questions:

- How well are we doing compared to others?
- How good do we want to be?

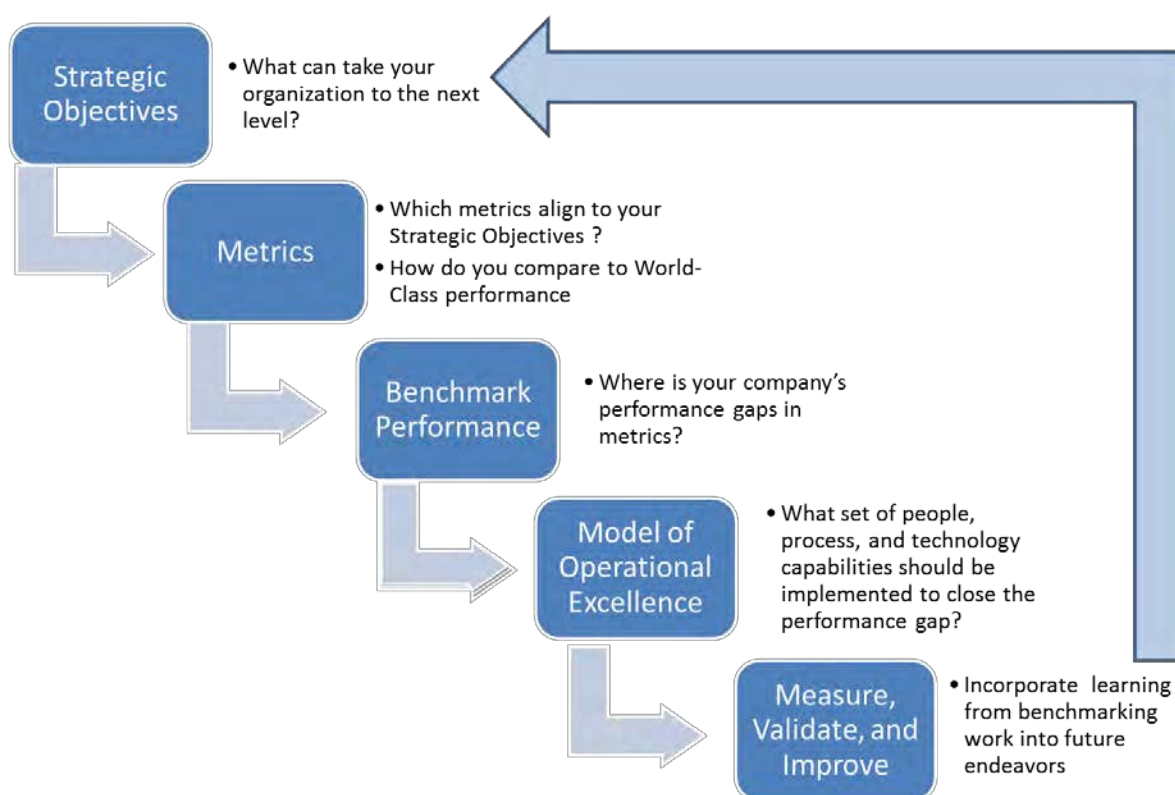
- Who is doing it the best?
- How do they do it?
- How can we adapt what they do to our institution?
- How can we be better than the best? (Kempner 1993)

Figure 7: Xerox Benchmarking Process



Previously, questions like these may have not have seemed important to institutions of higher education. However, in the competitive and rapidly changing markets of the 21st century (characterized by declining enrollments and funding in higher education), organizations are learning never to be satisfied with the status-quo, and to continually question their internal operations and relative position in the eyes of prospective students. To answer these questions, several multi-step benchmarking methods have been developed by leading benchmarking practitioners. Figure 8 below presents one of those frameworks which outlines how benchmarking can be used by higher education institutions as a mechanism to satisfy their strategic objectives¹ and move the institution towards its vision for the future.

Figure 8: Benchmarking Framework for Mongolian HEIs



The first steps involve aligning your benchmarking project with the strategic objectives of the organization which should involve selecting and defining the administrative or teaching process(es) to be studied; identifying how the process will be measured; and deciding which other institutions to measure against. Following that, benchmarking

¹ See also "Guidelines for Strategic Planning for Mongolian HEIs" published by the Mongolian HERP Governance Team

process data is collected using primary and/or secondary research about the institutions being studied. The next steps consist of analyzing the data gathered to calculate the research findings and to develop recommendations. At this point, the differences or gaps in performance between the institutions being benchmarked help to identify the process enablers that equip the leaders in their high performance. Adaption of these enablers for improvement is the final step in the first iteration of a benchmarking cycle, and the primary goal of the project. Figure 8 also highlights that benchmarking is an ongoing, self-sustaining process for continuous improvement.

There are primarily four kinds of benchmarking: internal, competitive, functional and / or industry, and generic or best-in-class. Internal benchmarking can be conducted at large, decentralized institutions where there are several departments or units that conduct similar processes. The more common competitive benchmarking analyzes processes with peer institutions that are competing in similar markets. Functional or industry benchmarking is similar to competitive benchmarking, except that the group of competitors is larger and more broadly defined. Generic or best-in-class uses the broadest application of data collection from different industries to find the best operations practices available. The selection of the benchmarking type depends on the process(es) being analyzed, the availability of data, and the available expertise at the institution.

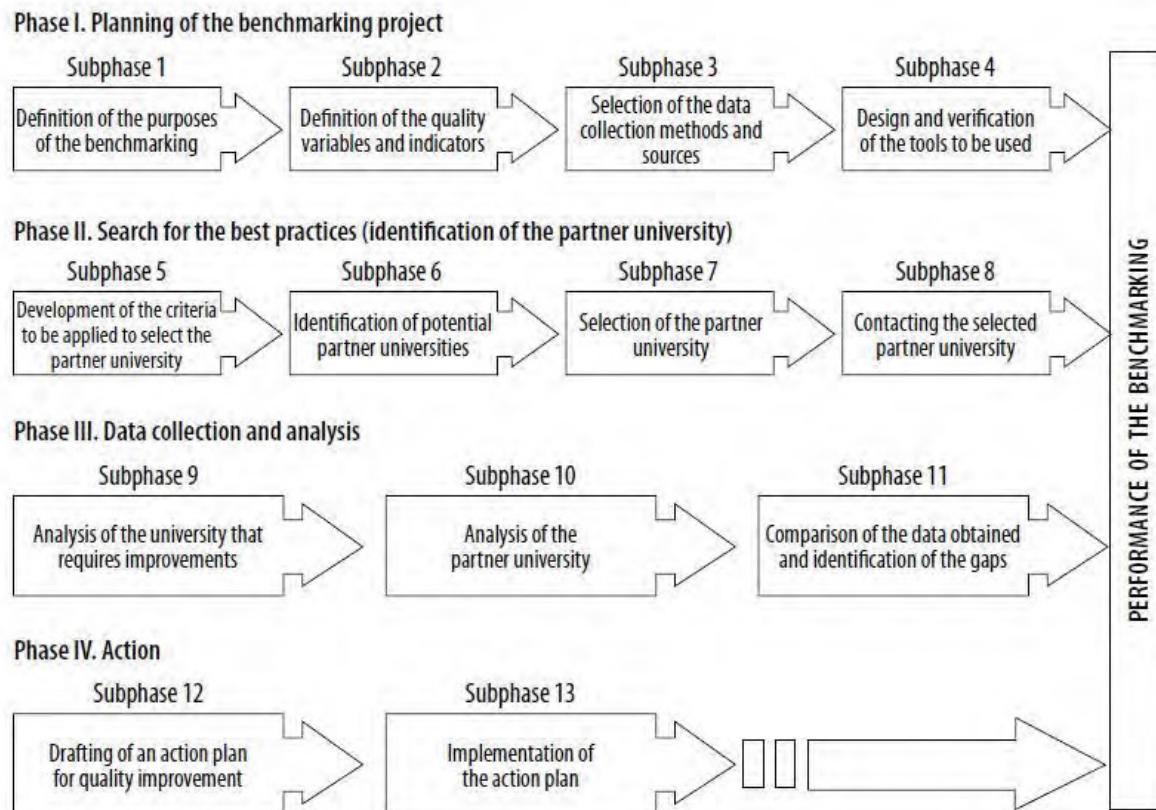
Benchmarking and Higher Education

Due to its reliance on hard data and research methodology, benchmarking is especially suited for institutions of higher education in which these types of studies are very familiar to faculty and administrators. Practitioners at higher education institutions have found that benchmarking helps overcome resistance to change, provides a structure for external evaluation, and creates new networks of communication between institutions where valuable information and experiences can be shared. Benchmarking is a positive process, and provides objective measurements for baselining (setting the initial values), goal-setting and improvement tracking, which can lead to dramatic innovations. In addition, quality strategies and reengineering efforts are both enhanced by benchmarking because it can identify areas that could benefit most from TQM and/or BPR, and make it possible to improve operations with often dramatic innovations. Benchmarking can make it possible for institutions to improve processes in a "leapfrog" fashion by identifying and bringing home best practices, and therefore offering a way of responding to demands for cost containment and enhanced service quality in a cost-effective and quality-oriented manner.

Getting Started with Benchmarking

The broad-based National Association of College and University Business Officers² (NACUBO) benchmarking program was begun in late 1991, and seeks to provide participants with an objective basis for improved operational performance by offering a "pointer" to the best practices of other organizations. Figure 9 below outlines their suggested phases involved in planning a benchmarking project.

Figure 9: Planning the Benchmarking Project



Today, nearly 282 institutions have participated in their study, and the current project analyzes 26 core functions at higher education institutions, such as accounting, admissions, development, payroll, purchasing, student housing, and others. The Association for Continuing Higher Education³ (ACHE) and graduate business schools have also conducted specialized benchmarking studies that focus on the processes and practices concerning their particular institutional departments. A review of the literature finds independent benchmarking projects are currently in use, or have recently been

² <http://www.nacubo.org/>

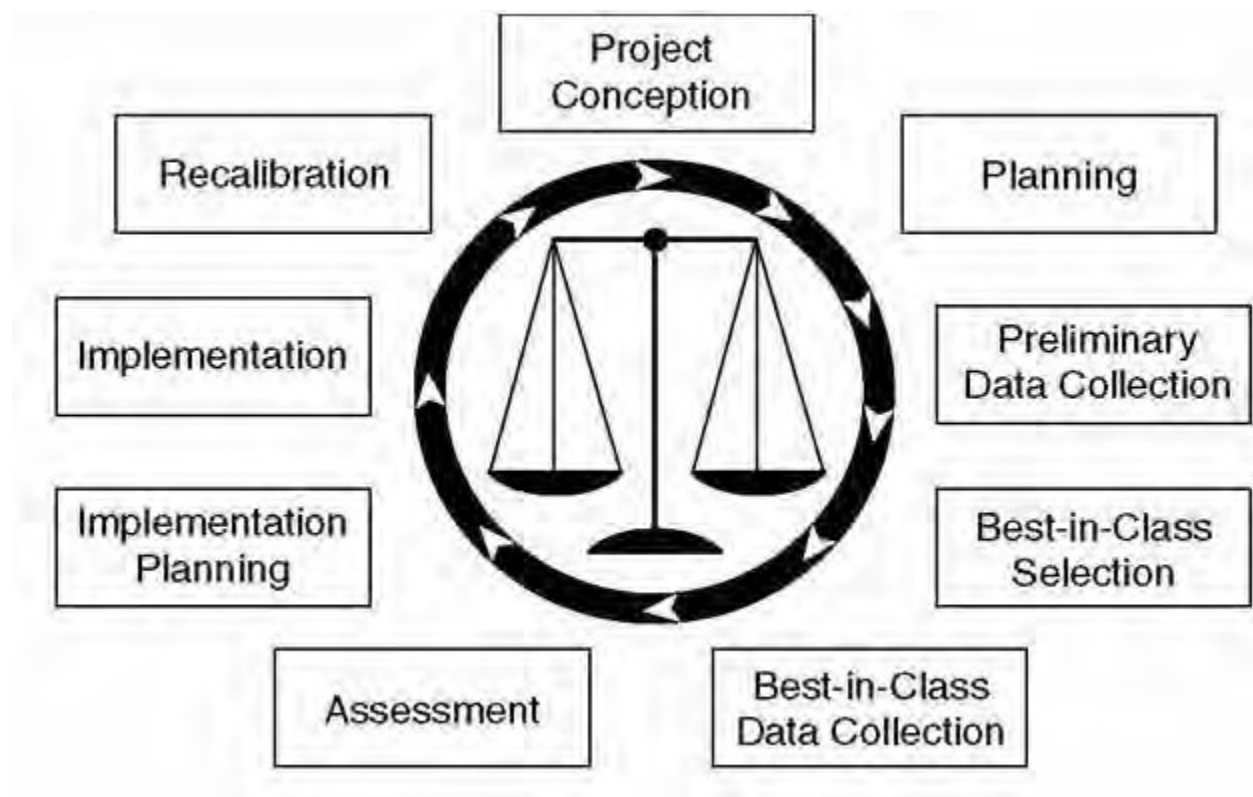
³ <http://www.acheinc.org/>

conducted, by a wide range of institutions such as the University of the Chicago, Oregon State University, Pennsylvania State University, Babson College, and many others. These independent projects cover undergraduate and graduate teaching processes, as well as academic and business administrative practices.

How Can an Institution Get Started?

Before beginning a benchmarking study, an institution should decide if benchmarking is the correct quality improvement tool for the situation⁴. Figure 10 below outlines the importance of “Project Conception” in the benchmarking process.

Figure 10: Starting the Benchmarking Project



After processes are selected for analysis, the appropriate personnel, who have a working knowledge of the area undergoing the benchmarking analysis should then be chosen to conduct the study. An institution can take part in an externally sponsored benchmarking project with predefined objectives, or conduct a project on its own or with the help of consultants. It is recommended that, as a start, an institution new to benchmarking, begin

⁴ http://www.nacubo.org/Research/Benchmarking_Resources.html

with a more "grassroots" level departmental or administrative project that measures best practices internally, or with local competitors. An institution that is more advanced in quality improvement efforts can seek out world-class competitors and better implement the findings more readily than a benchmarking novice. Information on prospective benchmarking partners can be obtained from libraries, professional associations, personal contacts, and data sharing consortia. Once the benchmarking data is collected and analyzed, it can be distributed in a benchmarking report internally within the institution and externally to benchmarking partners for implementation of improved processes. The overall goal is the adaption of the process enablers at the home institution to achieve effective quality improvement. Benchmarking is more than just gathering data. It involves adapting a new approach of continually questioning how processes are performed, seeking out best practices, and implementing new models of operation.

Finding the Data

Critical to a successful benchmarking project is the ability to find suitable comparable data and institutions against which to benchmark. The US Department of Education's National Center for Education Statistics has two online tools on their website, the Peer Analysis System (PAS) and the Executive Peer Tool, which can aid in the creation of a peer comparison list.

- The IPEDS PAS⁵ allows a user to create a comparison group using any number of criteria from the full list of IPEDS variables. For the user who is familiar with IPEDS data and has a specific set of criteria in mind for their peer group, the PAS may be the best option.
- The Executive Peer Tool⁶, a simplified version of the PAS, and will walk the user through creating a peer list based on specific IPEDS variables, such as geographic region, enrollment size, and Carnegie Classification. Once in the tool, enter your institution name, then select "Select your peer list," and then select the criteria you desire to base the peer group on. The Executive Peer Tool also offers the option of automatically generating a peer group.

Knowing where and how to find the right data is a continuing challenge in benchmarking. In addition to the US Department of Education's National Center for Education Statistics, the National Association of College and University Business Officers' benchmarking resources⁷ also provides valuable data for benchmarking in numerous databases⁸.

⁵ <http://nces.ed.gov/ipeds/>

⁶ <https://nces.ed.gov/datatools/index.asp?DataToolSectionID=2>

⁷ http://www.nacubo.org/Research/Benchmarking_Resources/Data_Resource_Matrix.html

⁸ http://www.nacubo.org/Research/Benchmarking_Resources/Data_Resource_Details.html

There are many data other sharing groups in the US that exists for different types of institutions, regions, athletic conferences, etc. A few examples are the Higher Education Data Sharing consortium (HEDS)⁹, the Association of American Universities Data Exchange (AAUDE)¹⁰ and Southern Universities Group (SUG)¹¹. Mongolian higher education institutions should explore whether joining an appropriate US data sharing group for benchmarking purposes would provide useful benchmarking data for their particular institution.

There is also an abundance of benchmarking data available from various UK sources. The Higher Education Information Database for Institutions¹² (HEIDE) provides a web-based management information service that provides easy access to data and information. In addition, the Higher Education Statistics Agency¹³ with their estate management records database¹⁴ provides statistics designed to inform the way in which institutions manage and improve their physical infrastructure. The Agency has also out research into benchmarking. The report, 'Benchmarking to Improve Efficiency'¹⁵, is the output of the first of a two-stage process designed to help the sector drive efficiency through more effective and extensive benchmarking of its activities. The Universities UK report "Efficiency and Effectiveness in Higher Education"¹⁶ recommended that better data on costs of operational functions should be developed, which would provide useful information to support benchmarking.

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⁹ <http://www.hedsconsortium.org/>

¹⁰ <http://aaude.org/>

¹¹ <https://oirp.ncsu.edu/facts-figures/peer-comparisons/southern-university-group>

¹² <http://www.heidi.ac.uk/>

¹³ <https://www.hesa.ac.uk/>

¹⁴ https://www.hesa.ac.uk/index.php?option=com_studrec&Itemid=232&mnl=12042

¹⁵ <https://www.hesa.ac.uk/index.php/content/view/1926/122/>

¹⁶ <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/report-by-efficiency-and-modernisation-task-group.aspx>

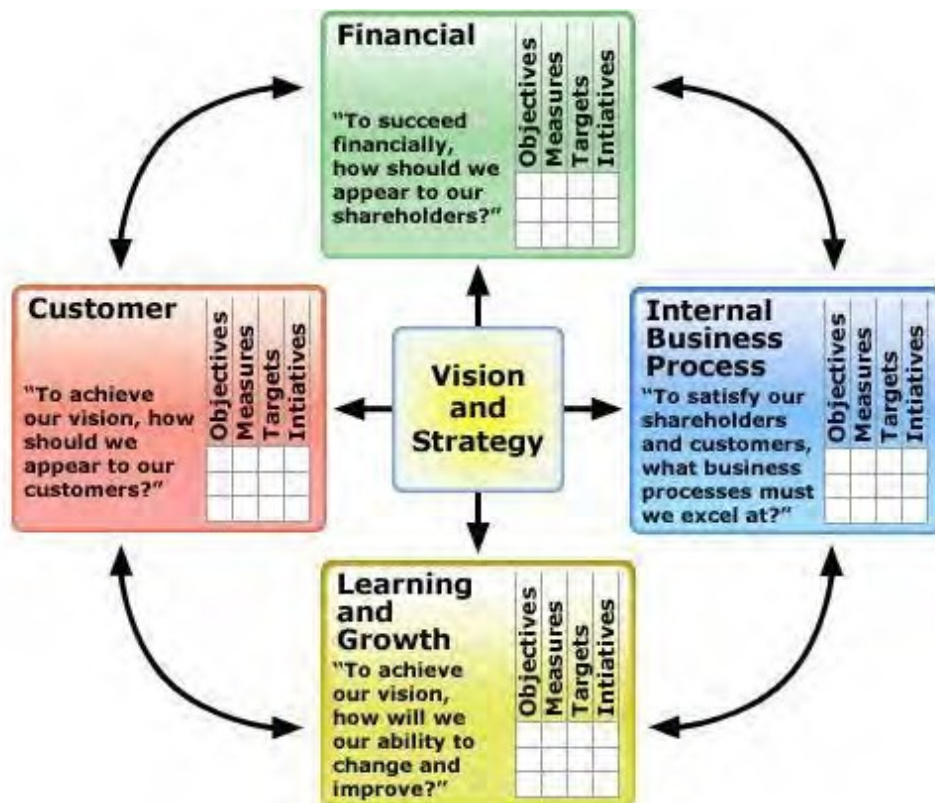
Balanced Scorecard



The Balanced Scorecard (BSC) ranked 6th in the Bain & Company's 2015 survey of international leaders on useful management tools. Introduced as a conceptual framework by Kaplan and Norton in the article entitled "The Balanced Scorecard Measures That Drive Performance", published in Harvard Business Review, in 1992; the BSC provides a new way of evaluating performance improvement in organizations by formulating a mechanism to document measurable variables for each of the organizations strategic objectives. It emerged as a conceptual framework for organizations to use in translating their strategic objectives into a set

of performance indicators. Rather than focusing on operational performance and the use of quantitative financial measures, the BSC approach links the organization's strategy to measurable goals and objectives in four perspectives: financial, customer, internal process, and learning and growth (Figure 11 below).

Figure 11: Balanced Scorecard Template



As can be seen in Figure 11 above, the Balanced Scorecard emphasizes that performance measurement must start from the institution's strategy. Effective measurement must be an integral part of the management strategy within the institution. Thus, the balanced scorecard serves as a management system to direct the various aspects that need improvement and is effective in encouraging the process of change within the institution. Appendix 2 provides an example of the use of the Balanced Scorecard in higher education.

The Balanced Scorecard translates Mission and Vision Statements into a comprehensive set of objectives and performance measures that can be quantified and appraised. These measures typically include several categories of performance in each of the four performance categories - financial performance (revenues, earnings and return on capital) customer or student value performance (market share and customer or student satisfaction measures), internal business process performance (productivity rates and quality measures), innovation performance (percent of revenue from new products or programs and rate of improvement index) and employee performance (morale and best demonstrated practices). Tying the performance measurement system to the Mission, Vision and resulting strategies of the institution helps motivate employees to implement the strategy of their business units. In addition, translating the institution's Vision, Mission and strategy into appropriate performance indicators also serves the purpose of communicate the resultant goals and targets to each employee.

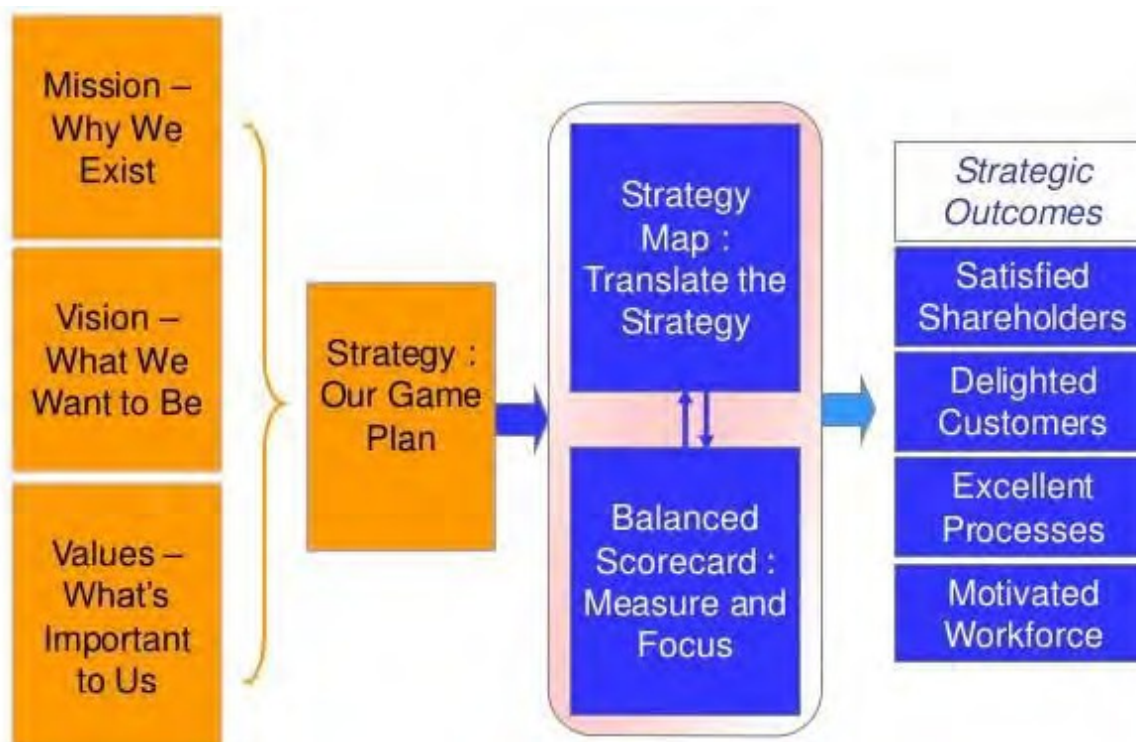
These performance indicators are a model of a holistic strategy that allows all employees to understand how they can contribute to the success of the institution's strategic goals. Each indicator needs to be linked to one another in a causal relationship and an appropriate performance measurement system is necessary to improve performance. If something cannot be measured it will not be understood; if it cannot be understood, then it cannot be controlled; and if it cannot be controlled; it cannot be developed.

The Balanced Scorecard in Higher Education

Many studies have been conducted to investigate the effects of the BSC in for profit commercial organizations in which these organizations adopt different perspectives suitable for their functions in line with their vision, mission and strategic themes. This flexibility in the Balanced Scorecard Framework also provides relevance for higher education institutions which are not necessarily for profit in nature. Higher education institutions are involved in routine processes of providing tertiary education including both undergraduate and postgraduate programs, vocational and education training. One of the aims of HEIs is to achieve results in terms of products and services for the students and other stake holders.

Higher education systems are also under pressure because there is a gap between skills demanded by the labor markets and skills acquired by graduates from the higher education institutions. The unemployment rate among university graduates in many countries has become continuously higher during the past decade. To reverse this trend, it is imperative institutional administrators adopt a different approach in focusing on their missions; relaying their strategy across the institutional processes. Such efforts should include laying down accountability measures, relating strategic objectives to the vision and mission of the university; re-aligning annual budgets; and more importantly, gauging and monitoring outcomes in both the short and long terms. Through the Balanced Scorecard, the balancing of the four perspectives of a University performance can be accomplished. These perspectives are financial growth, customer satisfaction, internal business operations, and learning and growth, which address continuous improvement with the help of human resources. These dimensions are crucial to provide an effective framework for performance management. Figure 32 below presents a visual presentation linking institutional strategy to the balanced scorecard perspectives.

Figure 32: Linking Strategy and the Balanced Scorecard Perspectives

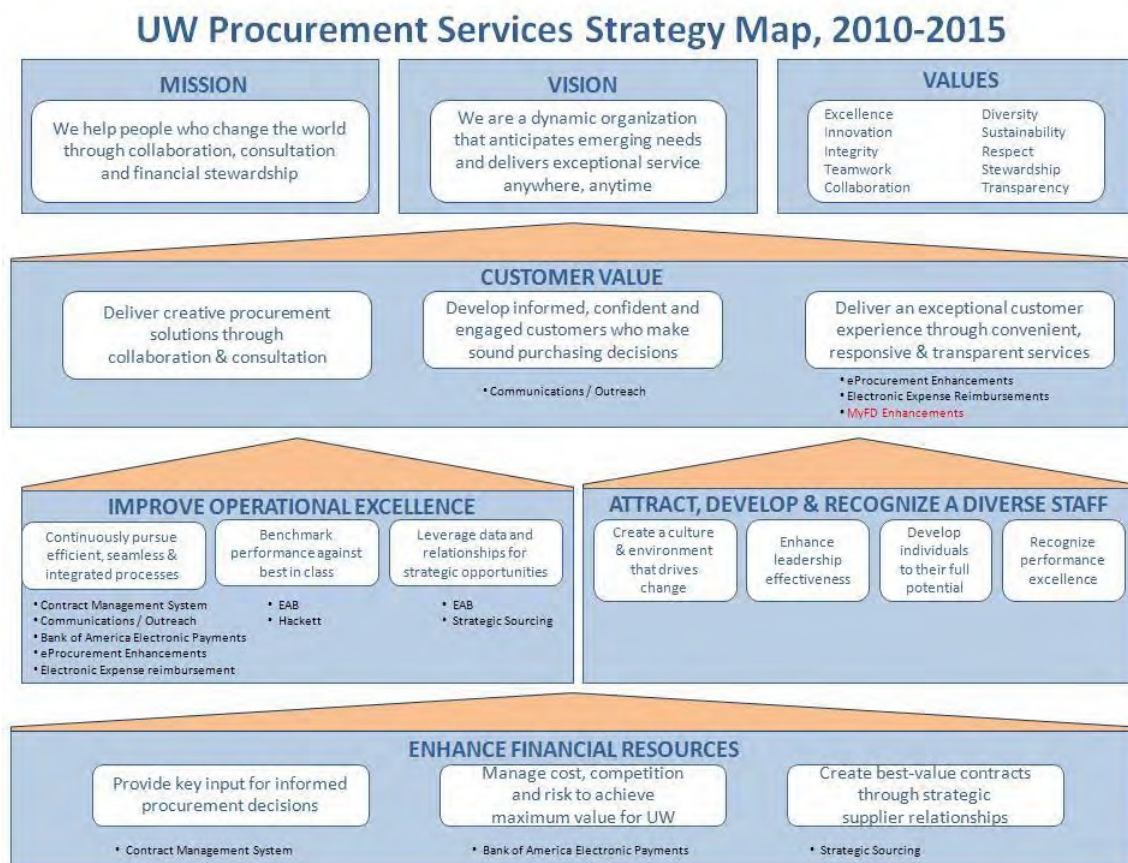


The conceptualization of the BSC is done with an underlying goal of linking business activities with the strategy, all directed towards achieving the ultimate end result which is institutional performance (Figure 31 above). These form the basis of developing measures to be used in assessment of institutional performance. Furthermore, by

requiring managers to select a limited number of critical indicators within each of the four perspectives, the scorecard helps to focus this strategic vision. Measuring performance also implies the monitoring of the effects and influence by tracking the overall financial results while monitoring the progression. The Balanced Scorecard allows institutions to align their core values to address any emerging issues for improving performance measurement by:

- providing a clear structure for continuous quality improvement;
- establishing a culture of Academic Quality;
- evaluating the efficient use of resources for each of the academic programs;
- providing a mechanism for documenting the contribution of each activity towards the mission of the institution as well as promoting personal and academic excellence; and
- helping the institution determine priorities on future planning and needs assessment.

Figure 33: University of Washington's Strategy Map¹



¹ <https://f2.washington.edu/fm/ps/about-procurement-services/strategy-map>

Figure 33 above shows the University of Washington's 2010 – 2015 procurement services strategy map in the context of the perspectives of the balanced scorecard. As can be seen in Figure 33, the Balanced Scorecard highlights the importance of the availability of financial resources as key drivers of performance in higher education institutions. Relating to the dimensions of the BSC, the Financial Perspective focuses on generating targeted financial results. Subsequently, HEIs pay more attention to cash flow consequences in their respective departments. This proposition holds for both public and private educational institutions. Once an institution's financial strategy is clearly defined and purposely implemented to focus on the educational outcomes, this will translate into overall success of the academic institution.

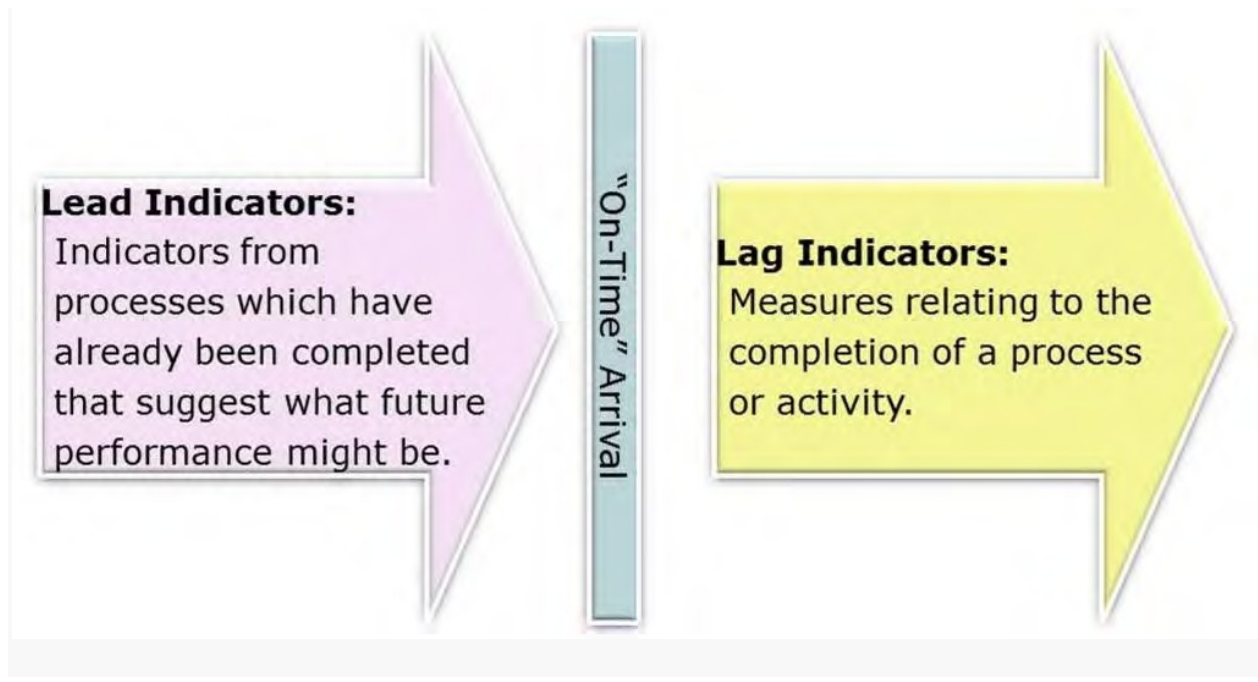
Balanced Scorecard Principles

Achievement of equilibrium is at the core of the BSC system. Balance must be attained among factors in three areas of performance measurement:

- financial and nonfinancial indicators,
- internal and external constituents, and
- lag and lead indicators (Figure 30 below).

Equilibrium must also be attained between financial and nonfinancial measures - nonfinancial measures drive the future performance of an institution and are therefore integral to its success.

Figure 30: Balanced Scorecard Lead and Lag Indicators



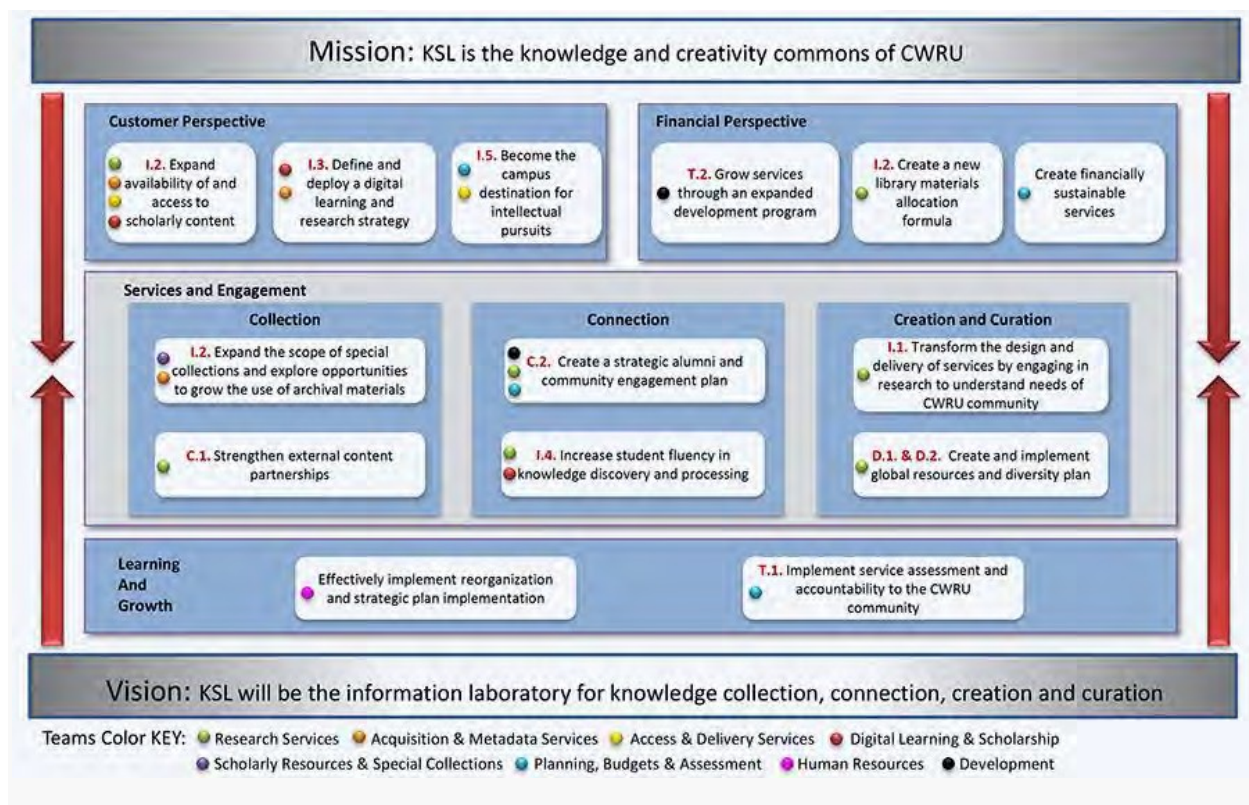
Further, the use of nonfinancial measures allows problems to be identified and resolved early, while they are still manageable. The sometimes contradictory needs of internal constituents (employees and internal processes) and external stakeholders (funders, legislators, and students) should be equally represented in the scorecard system.

A key function of the BSC is its use as a performance measurement system. The scorecard enables institutions to measure performance through a variety of lead and lag indicators relating to finances, customers (students), internal processes, and growth and development. Lag indicators are past performance indicators such as revenue or student satisfaction, whereas lead indicators are "the performance drivers that lead to the achievement of the lag indicators" – Figure 30 above.

The Balanced Scorecard's Focus

The BSC framework provides tools to assist higher education institutions in mapping their performance improvement strategies and establishing connections throughout the various levels of the institution. Additionally, the framework identifies cause-and-effect relationships. The strategy map component of the BSC provides a graphical description of the institution's strategy, including the interrelationships of its elements.

Figure 31: Strategy Mapping with the Balanced Scorecard



This map is considered the blueprint for the institutional plan. Figure 31 above provides an example of how a higher education institution (Case Western Reserve University) maps their strategic objectives in accordance with the 4 cornerstones of the Balanced Scorecard Framework².

Further, the BSC's cascading process gives the institution a tool for taking the scorecard down to departmental, unit, divisional, or individual measures of performance, resulting in a consistent focus at all levels of the institution. Ideally, these measures of performance at the various levels directly relate to the institutional strategy; if not, the institution is just benchmarking its metrics.

Figure 34: How the Balanced Scorecard Works



² <http://library.case.edu/ksl/aboutus/assessment/bsc/>

Useful Management Tools for Higher Education Institutional Administrators

Mongolian Higher Education Reform Project

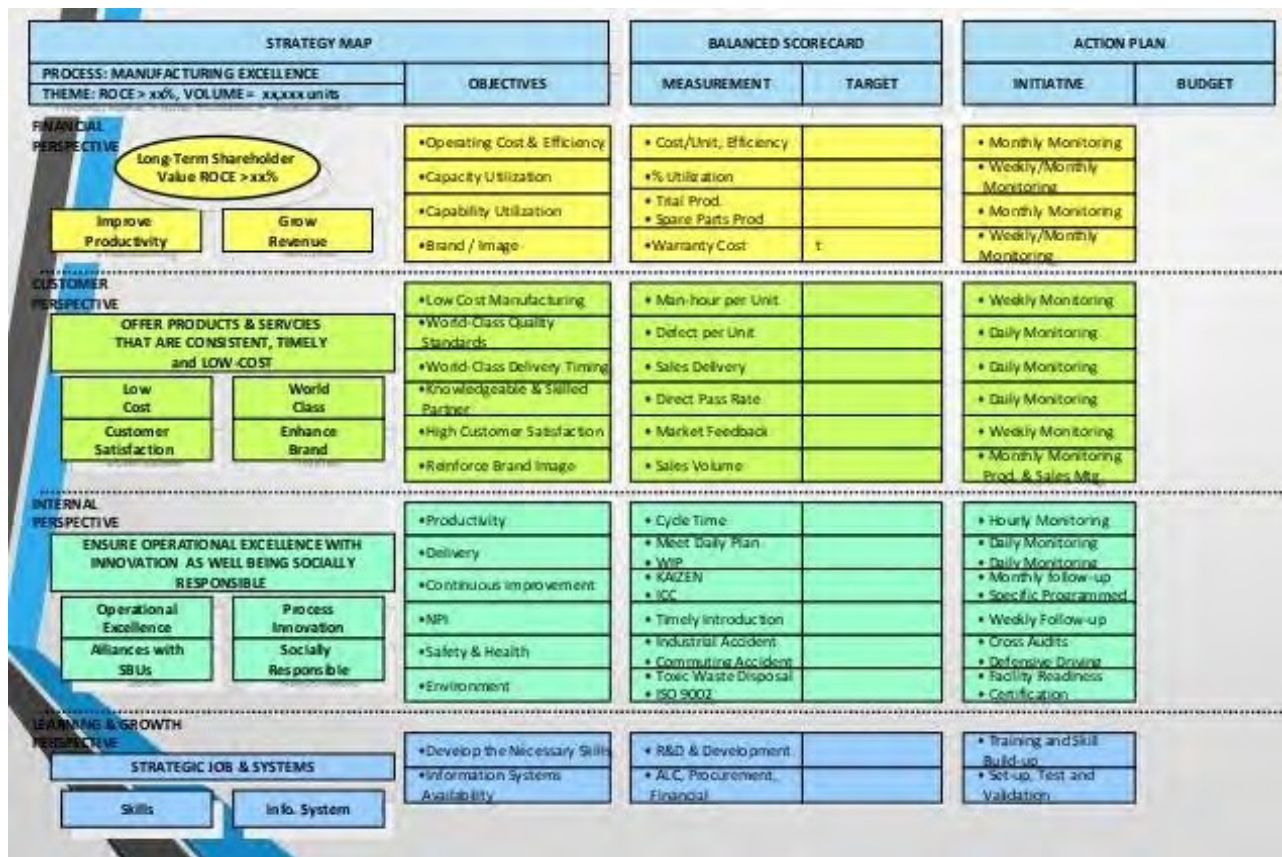
The cascading of the scorecard also presents employees with a clear image of how their individual actions make a difference in relation to the institution's strategic objectives. The cascaded scorecard creates alignment among the performance measurement outcomes throughout the various levels of the institution. This cascading effect of the balanced scorecard is highlighted in Figure 34 above.

The BSC has evolved into a powerful communications tool and strategic management system for both not-for-profit and profit-based institutions. Harvard Business Review has recognized the framework as one of the top 75 most influential ideas in the 21st century.

The Balanced Scorecard and the Institutions Strategy Map

As can be seen in Figure 31 above and Figure 35 below, utilization of the institution's Strategy Map enhances clarity in the implementation of the Balanced Scorecard. Using a strategy map allows middle management and operational staff, as well as other non-technical stakeholders, to visualize how their activities contribute to the institutional strategic goals and final outcomes.

Figure 35: BSC Strategy Map Template



A strategy map gives a graphical snapshot of the strategy of the institution so as to clarify the linkages among the strategic objectives, the initiatives and specific actions to be accomplished. It provides a visual insight into how individual actions of employees and stakeholders contribute to strategic objectives and subsequently the overall performance of the institution.

This enables institutional constituents to collaborate and coordinate their actions in order to achieve maximum efficiency and effectiveness while executing the institution's mission. A strategy map is developed following the cause and effect relationships in the BSC. It is structured in a top to bottom style, mapping out a destination and thereby clearly showing the route to be taken to achieve it. Once implemented, institutional monitoring by the institution's board and top management will be easier.

An institutional Strategic map is made up of five basic components - Financial Perspective, Learning and Growth Perspective, Internal Process Perspective, Stakeholders Perspective, in addition to the Vision, Mission and Strategic Thrusts; providing a visual framework that illustrates patterns of the cause and effect chain connecting the desired outcomes with the key drivers that are essential to achieve them. As such it provides a more practical way of implementing the BSC framework in higher education.

Closing Thoughts

The use of the BSC by higher education institutions provides institutional leaders and planners with a valuable mechanism linking the vision and mission of the institution and mapping the goals, objectives and institutional performance. It is a handy tool for determining priorities on future planning and needs assessment, providing a clear structure for continuous quality improvement, establishing a culture of Academic Quality in the institution, evaluating the efficient use of resources for each of the academic programs, and documenting the contribution of each activity towards the mission of the HEI so as to promote personal and academic excellence.

The Balanced Scorecard is regularly used in higher education institutions to strategize and monitor institutional performance, continuously benchmarking this with key elements of the strategic plan. The strength of the BSC for higher education institutions is that it provides a performance management system that appropriately can be used to improve the accountability within institutions.

This approach can help HEIs to translate the vision, mission and strategy into a series of performance indicators that can drive change towards better improvement. However,

HEIs still need to visualize precisely the strategy map according to its own characteristics and strategy. Each HEI needs to identify specific key success factors in order to be leading in accordance with its vision. In the implementation of their strategy, HEIs often encounter obstacles such as resistance to change, lack of commitment, or the fear of accountability pressures. Mapping strategy using the balanced scorecard concept can focus the university strategy to remove such barriers to success.

Total Quality Management in Higher Education

Total quality management ranked number 13 in the Bain & Company 2015 survey of useful management tools. It was also the one concept with which surveyed executives expressed the most satisfaction. The interpretation of “quality” however remained varied.

What is Quality?

Quality is at the top of most agendas and improving quality is probably the most important task facing any institution. In its simplest terms, “Quality” is about customer satisfaction. Translated into the academic sector, quality is about student satisfaction – ensuring institutional personnel and processes are focused on what it takes to satisfy and exceed students’ needs and wants. This is sometimes called *quality in perception*. Figure 12 below presents a graphical representation of quality in higher education institutions.

Figure 12: Quality in Higher Education Institutions



The more complex definition of quality has two aspects. The first is concerned with *measuring up* and ensuring conformity to a predetermined specification. “Does this good or service do what is asked or expected of it?” Quality is achieved by putting systems and procedures into operation and ensuring that those systems are efficiently and effectively operated. It is the audit trail approach to quality. *Proving, approving* and *reporting* are the key descriptors of this largely instrumental approach to quality.

Transformational quality, the second aspect, is different. It has less to do with systems and procedures and more to do with continuous improvement and organizational transformation. It focuses on the *softer* and more intangible aspects of quality. These softer concepts include care, customer service and social responsibility, and often go to the heart of the difficult and intangible issues of customer satisfaction. While the procedural notions of quality are essential and necessary they are by themselves not sufficient to ensure customer loyalty. The things that bring customers back time and time again and hold their allegiance are often centered on personal service and customer care.

Quality Control, Quality Assurance and Total Quality Management

As well as having a clear understanding of the meaning of quality, it is also necessary to understand the difference between three other important quality ideas. These are the distinctions made between “quality control”, “quality assurance” and “total quality management”. Figure 18 below presents a sample quality assurance framework for higher education institutions.

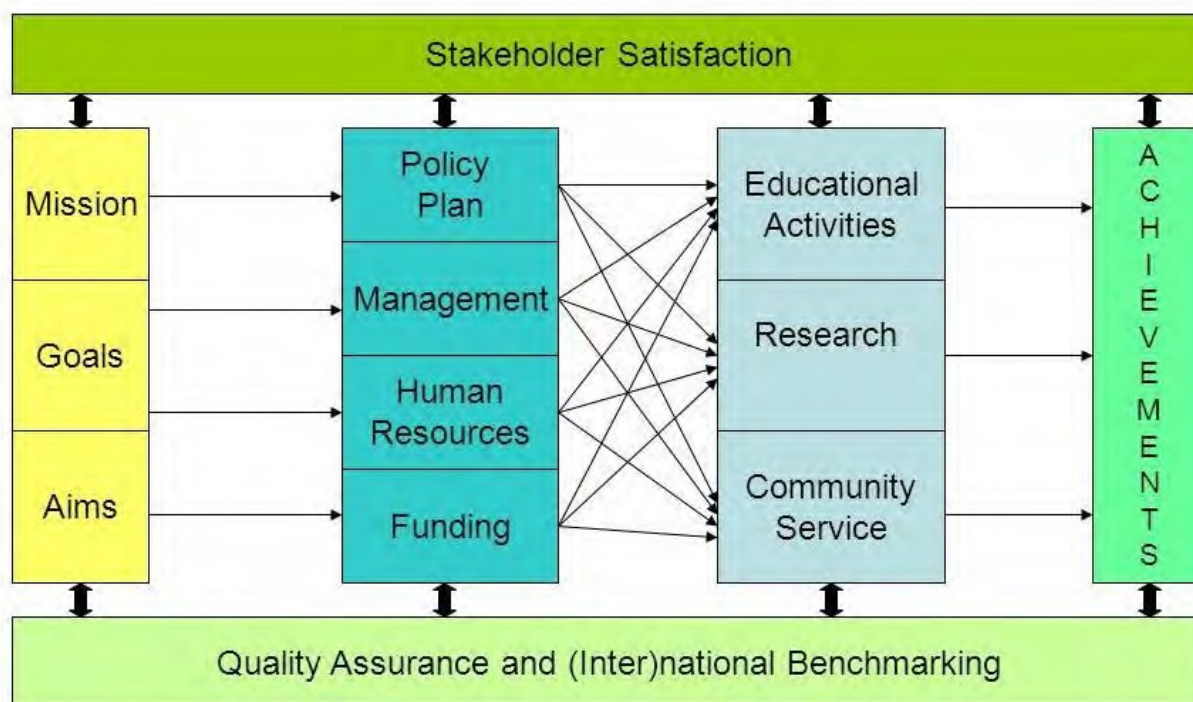
Quality Control is the oldest quality concept. It refers to the detection and elimination of components or programs that are not up to standard. It is an after-the-event process concerned with detecting and rejecting defective items. Inspection and testing are the most common methods of quality control, and are widely used in education to determine whether standards are being met.

Quality Assurance is different from quality control. It is a before and during the event process concerned to prevent faults occurring in the first place. Quality assurance is about designing quality into the process to attempt to ensure that the program or service is produced to a predetermined specification.

Put simply, quality assurance is a means of producing defect- and fault-free programs or services. Quality assurance is about consistently meeting program specification or *getting things right first time, every time*. The quality of the institution’s programs or services is assured by there being a system in place, known as a quality assurance (QA) system, that lays down exactly how the program should take place and to what standards. Quality standards are maintained by following the procedures laid down in the QA system. Quality

assurance is the responsibility of the workforce, usually working in quality circles or teams, rather than the inspector, although inspection can have a role to play in quality assurance.

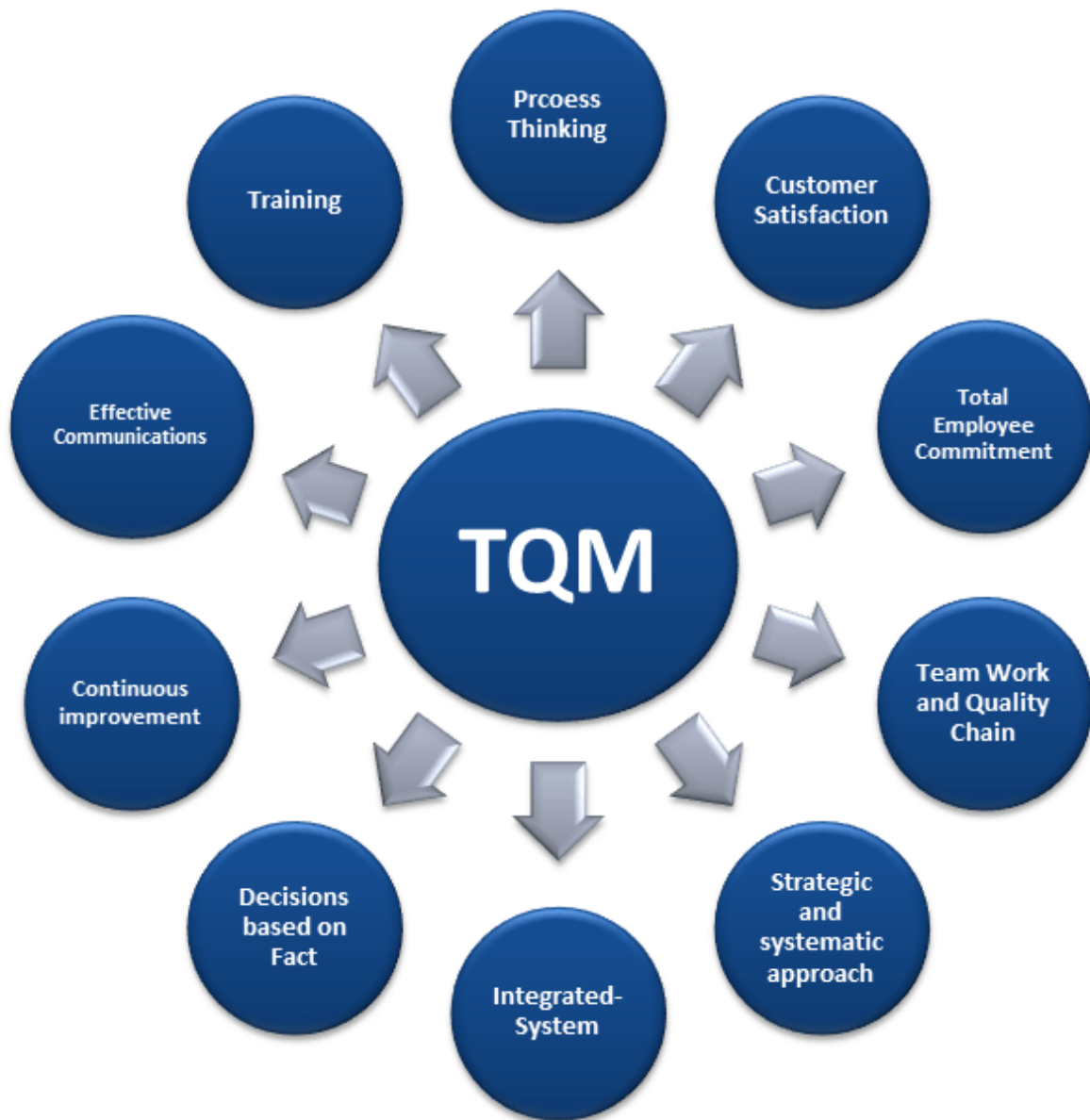
Figure 18: Quality Assurance Framework for HEIs



Total Quality Management incorporates quality assurance, and extends and develops it. TQM is about creating a quality culture where the aim of every member of the faculty and staff is to satisfy students and other customer groups, and where the structure of the organization allows them to do so. In TQM in higher education institutions, the student is sovereign. TQM in higher education institutions is about providing students with what they want, when they want it and how they want it. It involves moving with changing student expectations and fashions to design programs and services that meet and exceed their expectations. Only by satisfying students will they return and in addition tell their friends about the institution (this is sometimes called the sell-on definition of quality).

While sometimes difficult to grasp, of one thing we can be certain: quality is what makes the difference between our programs being excellent or run-of-the-mill. Increasingly, quality makes the difference between success and failure. Figure 14 below highlights the components of an effective total quality management program in higher education institutions.

Figure 14: The Components of Total Quality Management



The best institutions, whether public or private, understand quality and total quality management. Seeking the source of quality is an important quest for higher education institutions, and sources of generally include:

- outstanding teachers;
- high moral values;
- excellent examination results;

- the support of parents, business and the local community;
- plentiful resources;
- the application of the latest technology;
- strong and purposeful leadership;
- the care and concern for pupils and students;
- a well-balanced and challenging curriculum

Institutions that take quality seriously listen to and respond sympathetically to the needs and wants of students and other customer groups. Of course, quality involves doing many other things well, but unless an institution puts students first the preconditions for developing quality will not exist. Total Quality Management is both a philosophy and a methodology. It can assist institutions to manage change and to set their own agendas for dealing with the plethora of new external pressures. However, TQM does not and will not bring results overnight; neither is it a panacea for all the problems that beset academic institutions. Rather it is an important set of tools that can be employed in the management of our education programs and processes.

The Four Cornerstones of Quality in Academia

Higher educational institutions are generally pursuing quality improvement for a number of important reasons. Some are linked with professional responsibility, while others result from the competition inherent in educational marketplaces or from the need to demonstrate accountability. In the commercial world it is the survival imperative that often drives quality improvement, but the complexity of education and the importance of values in education makes the motives for taking a quality stance more complicated and diverse. The four cornerstones of quality outlined below reflect the complex environment in which educational institutions operate. They are the drivers and motivating forces that challenge any institution to take a proactive stance on quality.

- **The Moral Cornerstone** - The institution's customer groups (students, parents and the community) deserve the best possible quality of education. This is the moral high ground in education and one of the few areas of educational discussion where there is little dissent. It is the duty of educational professionals and administrators to have an overriding concern to provide the very best possible educational opportunities.
- **The Professional Cornerstone** - Closely linked to the moral cornerstone is the professional cornerstone. Professionalism implies a commitment to the needs of students, as well as other customer groups, and an obligation to meet their needs by employing the most appropriate pedagogic practices. Educators have a

professional duty to improve the quality of education and this, of course, places a considerable burden on faculty and administrators to ensure that both classroom practices and the management of the institution are operating to the highest possible standards.

- **The Competitive Cornerstone** - Competition is a reality in the world of education. Institutional leaders can meet the challenge of competition by working to improve the quality of their programs, services and of curriculum delivery mechanisms. Competition requires strategies that clearly differentiate institutions from their competitors, and quality may sometimes be that only differentiating factor. Focusing on the needs of the student, which is at the heart of quality in higher education, is one of the most effective means of facing the competition and surviving.
- **The Accountability Cornerstone** - Schools and colleges are part of their communities and as such they must meet the political demands for education to be more accountable and publicly demonstrate high standards. TQM supports this accountability requirement by promoting objective and measurable outcomes of the educational process and provides mechanisms for quality improvement.

All four quality cornerstones are necessary to ensure institutional well-being and survival. If institutions fail to provide the best services, they risk losing students who will opt for one of their competitors. By regarding these *drivers* as anything less than “critical” we risk the integrity of our profession and the future of our institutions. We are in an era where parents and politicians are asking tough and uncompromising questions. For education as for industry, quality improvement is no longer an option, it is a necessity.

Higher Education Institutions and their Customer Groups

Higher education institutions are seen as providers of services. The services they provide include advice, tuition, assessment and guidance to students, their parents and sponsors. The customers—the stakeholders of the service—are a very diverse group and need identifying. If quality is about meeting and exceeding customer needs and wants, it is important to be clear whose needs and wants we should be satisfying. Students are only one customer group. The diversity of HIEs’ customer groups makes it all the more important for institutions to focus on customer wants and needs for each customer group and to develop mechanisms for responding to them. To do so, it is helpful to make distinctions between:

- primary customers—who directly receive the service;

- secondary customers—such as parents, regulating authorities, sponsoring employers of vocational students, all of whom have a direct stake in the education of a particular individual or in a particular institution;
- tertiary customers—who have a less direct but nonetheless crucial stake-holding in education, such as future employers, government and society as a whole;
- internal customers—who are the employees (faculty and staff) of the institution and who have a critical stake-holding in the organization's success.

The needs and views of the various customer groups, whether they are internal or external, do not always coincide, especially in large and complex institutions, although the conflict can equally be present in small ones. Potential and actual conflicts of customer interest will always exist. All stakeholders need to have their views listened to and to be treated fairly. Quality and justice go hand in hand.

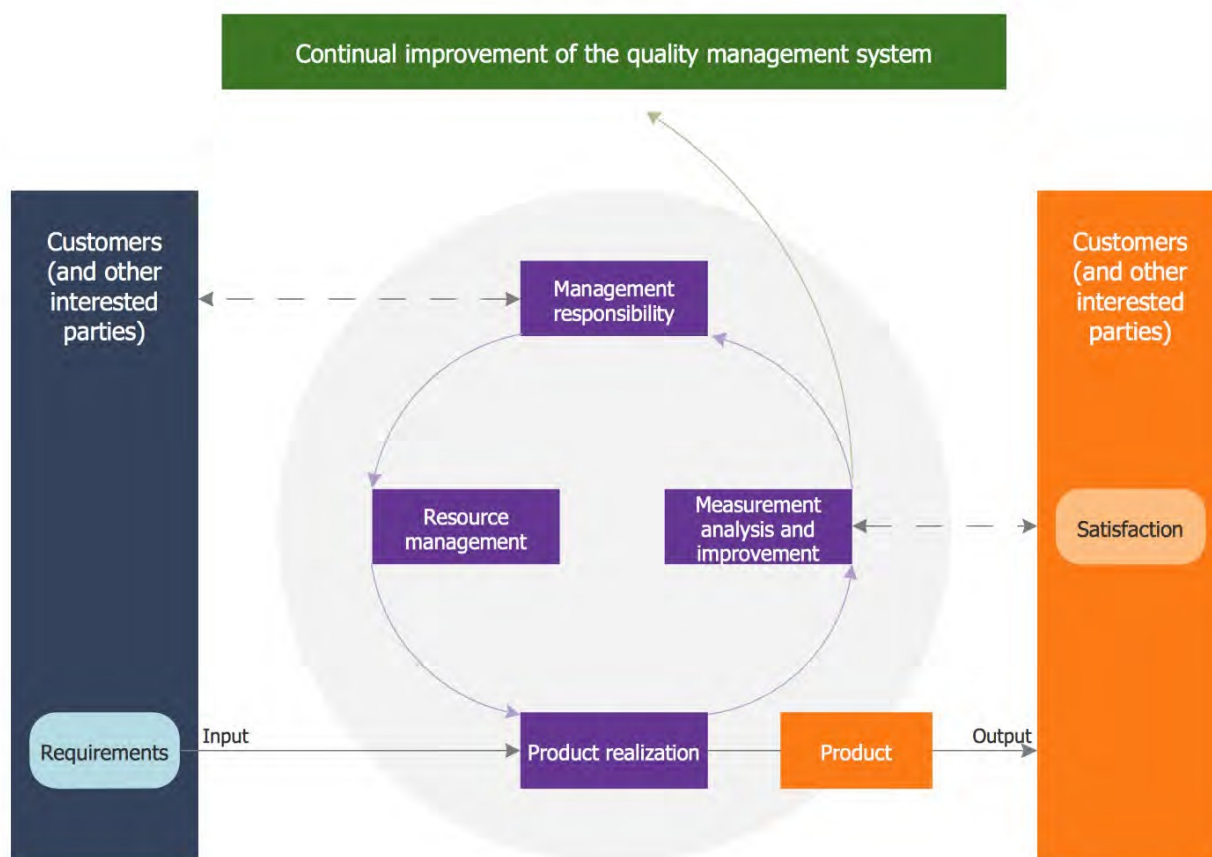
It is often difficult to ensure that the primary customers' views are paramount. Where the needs of the learner and funding mechanisms collide, it is very difficult for an institution to put its learners first. This is particularly the case where funding mechanisms emphasize efficiency that can only be achieved at the cost of quality. This is a very difficult issue to resolve and TQM does not provide ready answers to it. What TQM does is to ensure that the institution's processes keep the learners' views center stage.

Total Quality Management

Total quality control, total quality service, continuous improvement, strategic quality management, systematic improvement, quality first, quality initiatives, service quality are some of the many titles used to describe what is called TQM. Figure 13 outlines a total quality management system for higher education institutions.

TQM is used to describe two slightly different but related notions. The first is a philosophy of continuous improvement. The second related meaning uses TQM to describe the quality tools and techniques, such as brainstorming and force-field analysis which are used to put quality improvement into action.

Figure 13: Total Quality Management System for HEIs



Continuous improvement

TQM is a practical but strategic approach to running an organization that focuses on the needs of its customers and clients. It rejects any outcome other than excellence. TQM is not a set of slogans, but a deliberate and systematic approach to achieving appropriate levels of quality in a consistent fashion that meet or exceed the needs and wants of customer groups. It can be thought of as a philosophy of continual improvement only achievable by and through people.

As an approach, TQM represents a permanent shift in an institution's focus away from short-term expediency to the long-term quality improvement. Constant innovation, improvement and change are stressed, and those institutions that practise it lock into a cycle of continuous improvement. They make a conscious attempt to analyse what they are doing and plan to improve it. To create a continuous improvement culture, managers have to trust their staff and to delegate decisions to the appropriate level to give staff the responsibility to deliver quality within their own sphere.

TQM is usually accomplished by a series of small-scale incremental projects. The Japanese have a word for this approach to continuous improvement—*kaizen*. This is most easily translated as ‘step-by-step improvement’. The philosophy of TQM is large-scale, inspirational and all-embracing, but its practical implementation is small-scale, highly practical and incremental. Drastic intervention is not the means of change in TQM. Grandiose schemes are not the way forward, because often they founder for lack of resources, and their demise can breed cynicism and discontent.

Changing Cultures

TQM requires a change of culture. This is notoriously difficult to bring about and takes time to implement. It requires a change of attitudes and working methods. Staff need to understand and live the message if TQM is to make an impact. However, culture change is not only about changing behaviors. It also requires a change in institutional management.

Two things are required for staff to produce quality. First, staff need a suitable environment in which to work. They need the tools of the trade and they need to work with systems and procedures which are simple and which aid them in doing their jobs. The environment that surrounds staff has a profound effect on their ability to do their job properly and effectively. Among the important environmental features are the systems and procedures with which they work. Laying down good and workable procedures by itself does not produce quality, but if procedures are poor or misleading it makes producing quality extremely difficult.

Secondly, to do a good job the staff need encouragement and recognition of their successes and achievements. They deserve leaders who can appreciate their achievements and coach them to greater success. The motivation to do a good job comes from a leadership style and an atmosphere that heightens self-esteem and empowers the individual.

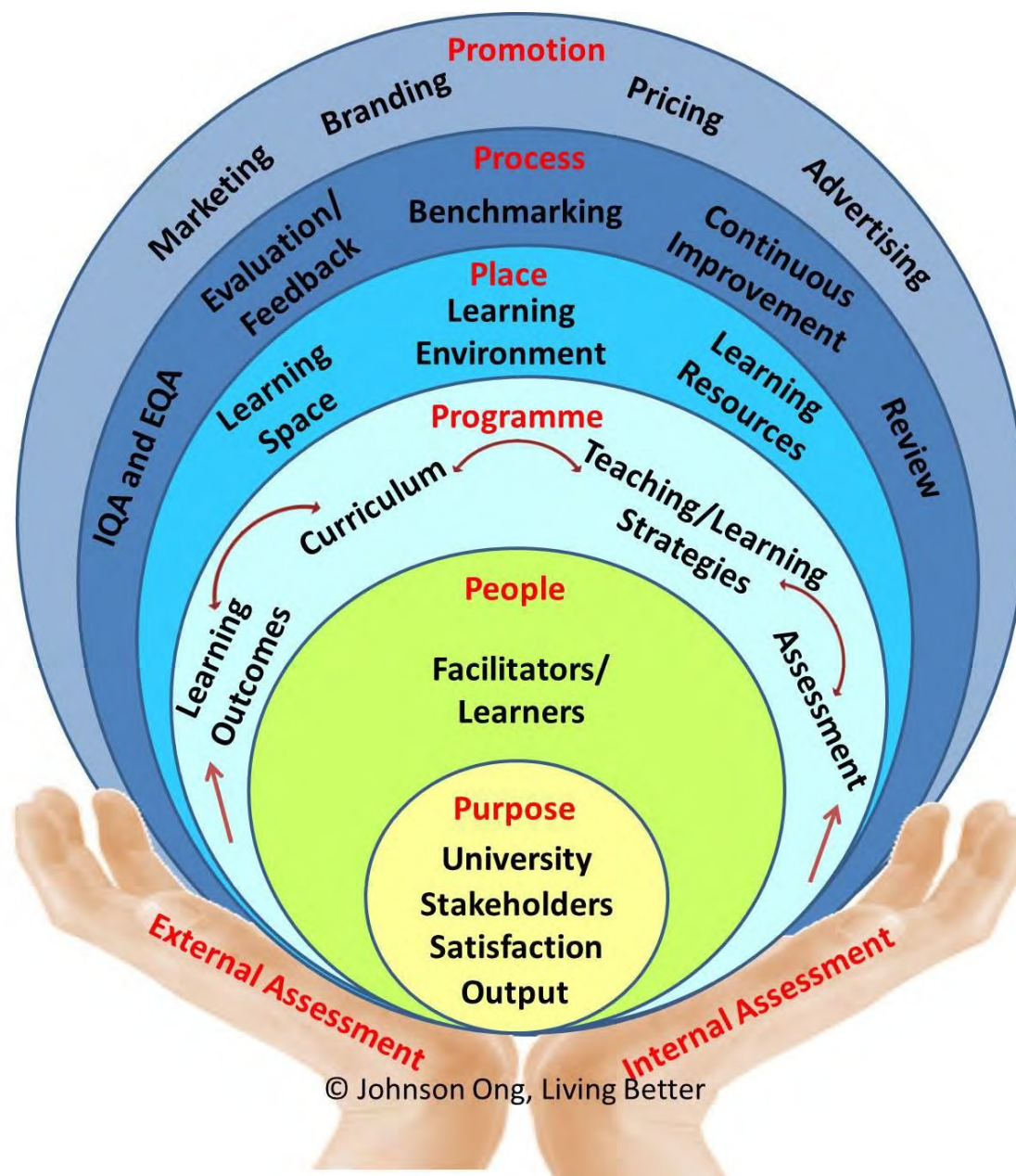
The 6Ps Total Quality Management Model

The 6Ps Model (Figure 19 below) provides a holistic and integrated approach to manage the quality of educational program in higher education. It begins with the environmental scanning of external factors, an analysis of stakeholders' needs and internal capabilities and resources of the university with the objective of determining the “Purpose” in satisfying stakeholders' satisfaction and outcomes.

The facilitators and learners are the “People” at the center of the process. The facilitators comprise both content and context experts. The content experts need to consider the

characteristics of the learners so that relevant programs and place can be created for effective teaching and learning. While the context experts provide services to support the teaching and learning. The “Program” needs to be developed with the “purpose” and “people” in mind. Learning outcomes, curriculum, teaching and learning strategies and assessment have to be constructively aligned for effective learning and the achievement of the learning outcomes.

Figure 19: 6Ps Total Quality Management Model for HEIs



The “Place” provides the relevant learning space (physical and virtual), learning environment (social and psychological) and learning resources (materials, technology, etc.) to facilitate effective teaching and learning. The “Process” encompasses internal and external quality assurance, evaluation and feedback, benchmarking, continuous improvement and review. The last “P” is “Promotion” which involves the marketing, branding, pricing and advertising of a program.

Barriers to Introducing TQM

TQM is hard work. It generally takes time to develop the required quality culture within higher education institutions. By themselves hard work and time are two of the most formidable blocking mechanisms to quality improvement. If TQM is to work it must have the long-term devotion of the senior staff of the institution. Many quality initiatives falter because senior managers quickly return to traditional ways of managing. If senior management do not give TQM their backing there is little that anyone else in the institution can do.

The sheer volume of external pressures also stands in the way of many institutions attempting TQM. Although quality programs are introduced with considerable publicity, too often they can be overtaken and submerged by other initiatives. There is a need to ensure that, despite other pressures, quality always has an important place on the agenda. This is where strategic planning plays such an important role. If TQM is firmly a part of the strategic role of the institution, and if there are good monitoring mechanisms in place, then there is a good chance that quality will keep a high profile. This makes it harder to ignore, and increases the chances of it being taken seriously.

The strategic plan can help staff understand the institution’s mission. It helps to bridge gaps in communication. There is a need for staff to know where their institution is going and how it will be different in the future. Senior managers must trust their staff sufficiently to share their vision for the institution’s future. Visions are often not shared because of a fear of a loss of status and disempowerment by managers. When coupled with a fear of delegation by managers this can make quality development nearly impossible. Managers have to be able to let their staff take decisions and be willing to see them make honest mistakes.

A potential problem area in many institutions is the role played in it by middle management. They have a pivotal role because they both maintain the day-to-day operation of the institution and act as one of its most important communications channels. They can often block change if they have a mind to or they can act as the leaders of teams spearheading the impetus for quality improvement. Middle managers may not define their role as one of innovation unless senior management communicates to them

their vision of a new future. Senior managers must be consistent in their behavior when advocating and communicating the message of quality improvement. They cannot say one thing and do another and then expect to engender enthusiasm among their staff or loyalty and commitment in their middle managers.

They have to persuade others that new working methods will pay dividends. Barriers to quality are not the sole prerogative of managers. Many staff fear the consequences of empowerment, especially if things go wrong. They are often comfortable with sameness. They need to have the benefits demonstrated to them. For this reason, TQM must avoid being about nothing but jargon and hype. This can easily lead to a loss of interest and to skepticism and cynicism, and to the belief that nothing makes any difference. Many of the barriers to TQM involve an element of fear and uncertainty. Fear of the unknown, of doing things differently, of trusting others, and of making mistakes, are powerful defense and resistance mechanisms. Staff cannot give of their best unless they feel that they are trusted and their views listened to.

Roadmap to Quality Planning

Quality planning leads to quality improvement and an effective roadmap to quality planning for higher education institutions could consist of the following steps:

- Identify who are the customer groups.
- Determine the needs of those customer groups.
- Translate those needs into the institutional language.
- Develop a program or service that can respond to those needs.
- Optimize the program or service features so as to meet the institution's needs as well as the needs of the customer group.
- Develop a process that is able to produce a quality program or service.
- Optimize the process.
- Prove that the process can produce the program or service under normal institutional operating conditions.
- Make the program or service operations.

There are no shortcuts to quality.

Figure 15: Summary of HEI Leadership Activities in TQM



The Role of the Leader in Developing a Quality Culture

What is the role of the leader in an institution undertaking a total quality initiative? Figure 15 above presents a graphical summation of institutional leadership responsibilities in developing an effective total quality management system. The detailed activities to ensure quality in higher education institutions which must be driven by the leadership of the institution also includes:

- Developing a vision for the institution;
- Having a clear commitment to quality improvement;
- Possessing the ability to communicate the quality message;
- Ensure the institutions meets the needs of the institution's customer groups;
- Ensuring that the voices of customers are heard;
- Leading staff development;
- Installing a no blame culture—most quality problems are the result of management and policies and not the failings of staff;

- Leading innovation;
- Ensuring that organizational structures are clearly defined
- Delegation with accountability;
- Ensuring a commitment to the removal of artificial barriers, whether they be organizational or cultural;
- Building effective teams;
- Developing appropriate mechanisms for monitoring and evaluating success.

Empowering Faculty

Institutional leadership a pivotal role in guiding faculty and administrators to work for and in concert with their customer groups. This is outlined in Figure 17 below. Institutional leadership support for faculty can be accomplished in a number of ways, including:

- Involving teachers and all staff in problem-solving activities, using basic scientific methods and the principles of statistical quality and process control.
- Asking faculty how they think about things and how projects can be handled rather than telling them how they will happen.
- Sharing as much management information as possible to help foster their commitment.
- Asking staff which systems and procedures are preventing them from delivering quality to their customers—students, parents, co-workers.
- Understanding that the desire for meaningful improvement of faculty is not compatible with a top-down approach to management.
- Rejuvenating professional growth by moving responsibility and control for professional development directly to faculty and technical workers.
- Implementing a systematic and continued communication among everyone involved in the institution.
- Developing skills in conflict resolution, problem solving and negotiations while displaying greater tolerance for and appreciation of conflict.
- Being helpful without having all the answers and without being condescending.
- Providing education in quality concepts and subjects such as team building, process management, customer service, communication and leadership.
- Setting an example by personally exhibiting desired characteristics and spending time walking around, listening to faculty and members of other customer groups.
- Learning to be more like a coach and less like a boss.
- Providing autonomy and allow risk taking while being fair and compassionate.
- Engaging in the delicate balancing act of ensuring quality to external customers (students, parents, taxpayers), while at the same time paying attention to the needs of internal customers (faculty, board members, and other co-workers).

Figure 17: Supporting Quality Teaching in Higher Education



Total Quality Management Tools

To reap the rewards of an effective total quality management system, there is a need to turn philosophy into practice and to develop practical means by which the institution can achieve quality improvement. Quality tools and techniques are the means of identifying and creatively solving problems. One of the powerful aspects of TQM is the bringing together of a range of useful tools to implement its underlying concepts. However, the power of the tools can only be experienced by regular use. Most are simple and some, like brainstorming, are already in regular use. It is important to find the right tools for the job and train staff in their proper use. With practice such tools can become part of the decision-making culture of the institution.

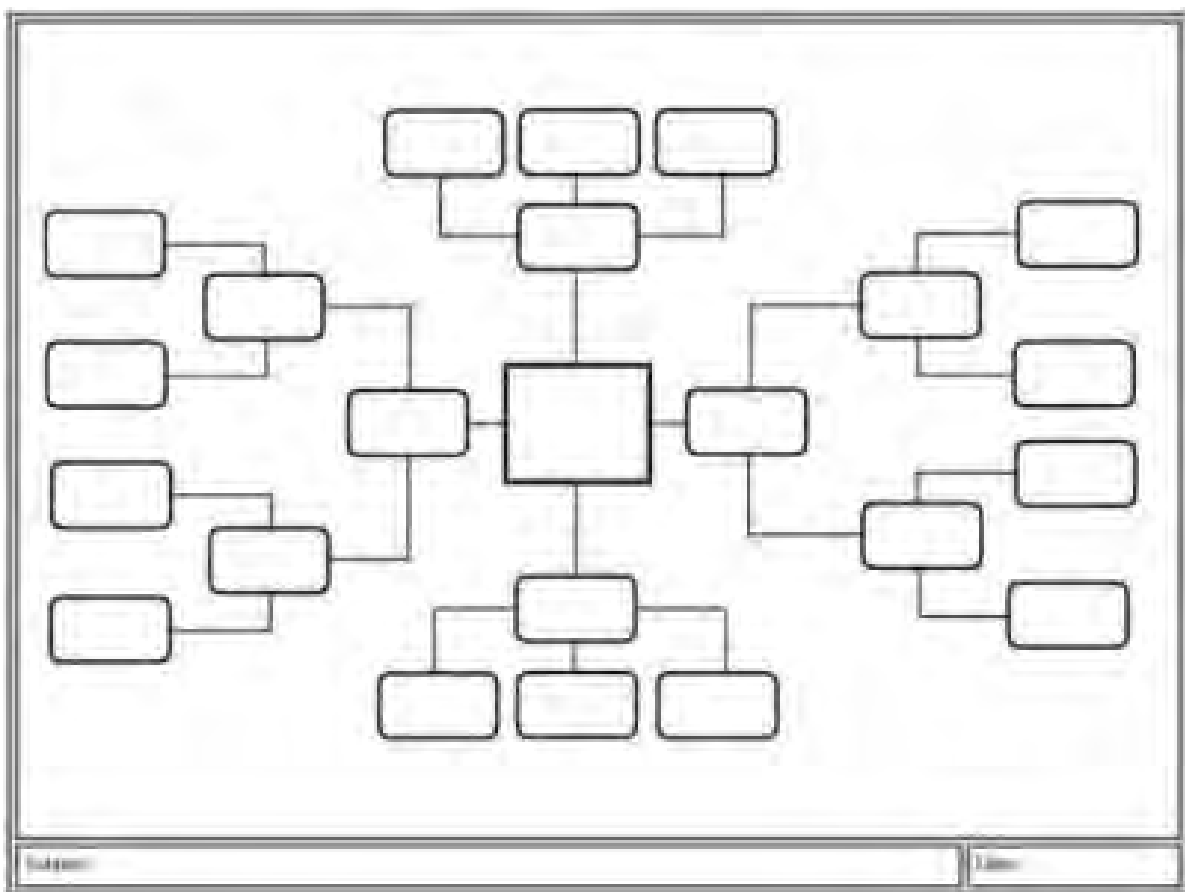
Brainstorming

Brainstorming, developed by Alex Osborn in the late 1940s, is a classic technique of creative group thinking. It is based on the notion that we often tend to evaluate ideas at

too early a stage of their development and this can lead to good ideas being rejected at source. In place of evaluation, ideas are put forward and recorded without judgement and so the processes of creating ideas and evaluating them are separated

Brainstorming is an ideal TQM tool. It is also enjoyable and productive to use. It taps into the creativity of a team and allows team members to generate ideas and issues quickly. A successful brainstorm allows staff to be inventive and free from restriction. However, it has limitations. While it excites the imagination and stimulates ideas, it is not a tool for analysis. Brainstorming does not provide objective assessments of a situation. As a result, it needs to be used together with other tools, such as affinity networks or the construction of Ishikawa diagrams (see the next two tools). Figure 20 below presents a sample brainstorming template.

Figure 20: Sample Brainstorming Template



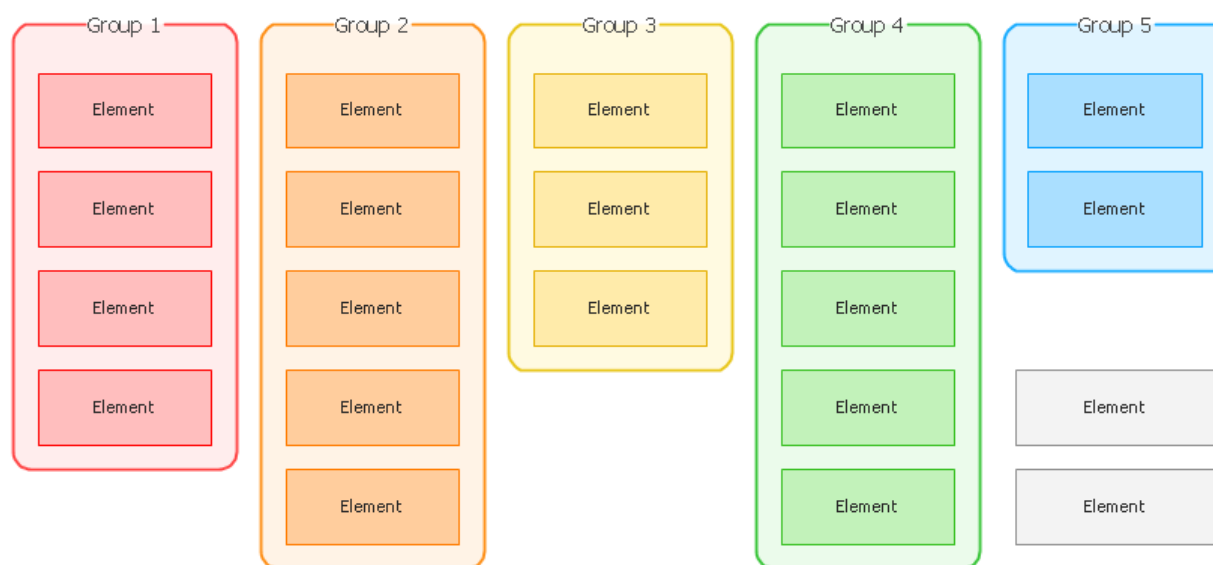
Brainstorming sessions should follow these simple rules:

- Be clear what the brainstorming is about.
- Nominate someone to write the ideas down somewhere visible (a flipchart is ideal).
- List all ideas as they are expressed.
- Don't discuss or criticize any ideas.
- Build on previous ideas.
- Quantity is good.
- Spontaneity is encouraged.
- Evaluation is deferred.
- All ideas are recorded.

Affinity Networks

This technique is used when there is the need to group a large number of ideas, opinions or issues and to categorize them. The aim is to identify which ideas have more affinity than others and to group them accordingly. The affinity network makes use of creative rather than logical processes. It helps make order out of chaos and stops a team drowning in a sea of ideas. Figure 21 below provides a sample Affinity Network template.

Figure 21: Sample Affinity Network Template



Affinity networks are a simple and powerful team process. They can be started with a brainstorming session. The team ideally should be kept small. The issue to be resolved needs to be clearly stated and must be understood by all. For example: 'What factors need considering in the student admission process? What issues are involved in unbiased

advice and guidance?’ The process that follows is a simple brainstorm with one difference. All the ideas are written on cards or Post-its. There should be no one-word ideas. There needs to be enough detail to provide clarity as to the meaning of any idea. At the end of the brainstorm the cards should be randomly laid out on a table, or if Post-its have been used they can be stuck on a whiteboard. This stage has one rule—it must be carried out in total silence. During the next stage the whole team sorts out the cards or Post-its into their related groupings. It is important to stress to the members in advance that this should be on the basis of their gut reaction and should be a quick process. Everybody has the right to move all the cards in or out of a group and to create new ones. This might sound like a recipe for chaos but it is surprising how quickly a consensus develops. Once the groupings are established the team must quickly decide on a heading card or title for each grouping. They place the header cards at the top of their group. The header needs to capture the essential link between the ideas in each group.

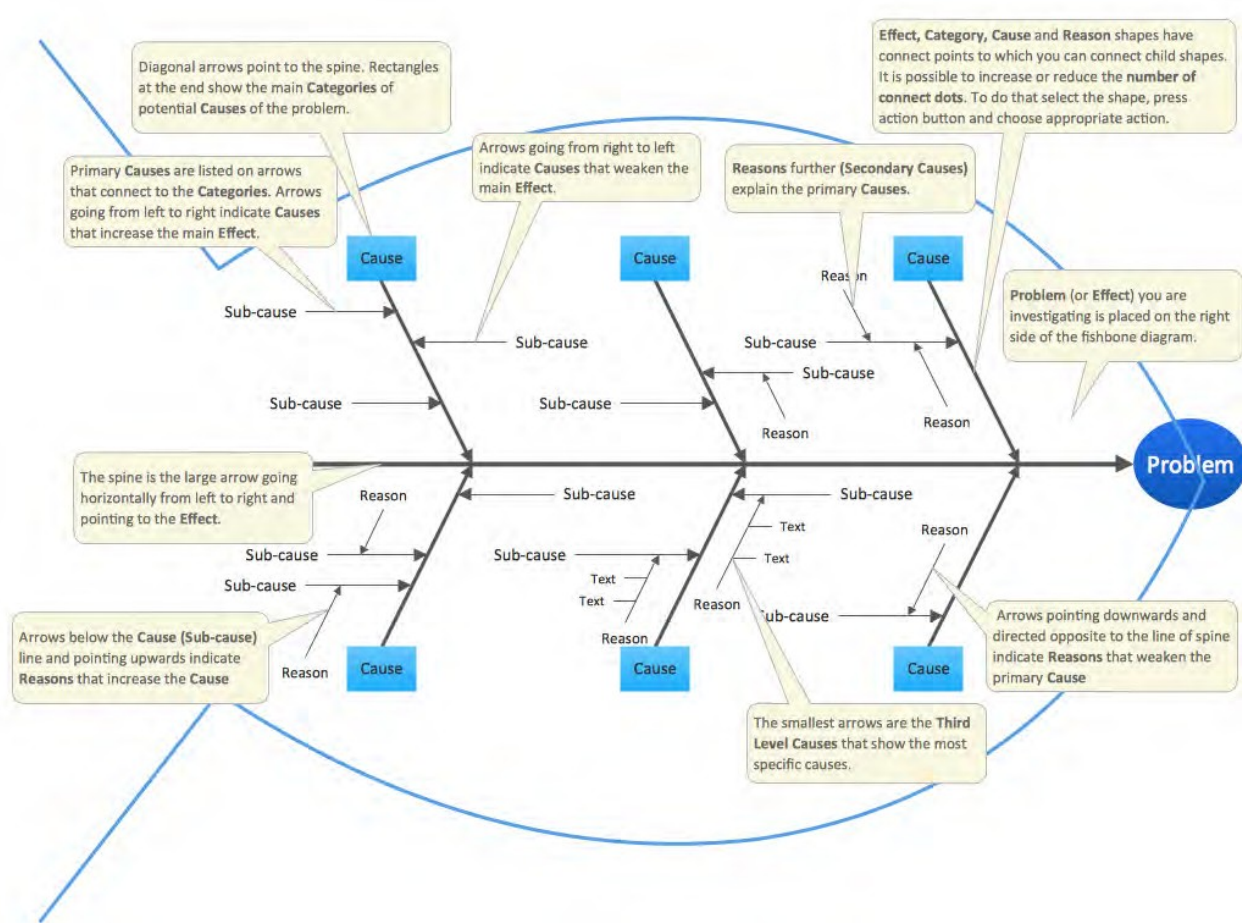
The next stage is to work out the relationships or affinities between groupings by drawing lines to link them. This will produce a tree diagram. The final result is a clarification of a complex set of issues or ideas into a small number of linked ideas with the relationship between them clearly established.

Fishbone or Ishikawa Diagrams

This technique goes by a number of names, including ‘cause and effect’, ‘fishbone’ or ‘Ishikawa’ diagrams. The last-named is after Kaoru Ishikawa who first introduced them. The technique allows a team to map out all the factors that affect the problem or a desired outcome. The mapping may best be carried out through a brainstorming session.

The aim is to list all the factors that affect the quality of a process and then to map the interrelationships between them. The Ishikawa diagram is a visual list drawn up in a structured fashion. It illustrates the various causes affecting a problem by sorting out and relating the causes to each other. For every effect there will be a number of causes and it is usual to group these in a number of major categories. This tool is used when an institution or a team needs to identify and explore the possible causes of a problem or look for the factors that could lead to an improvement. It is appropriate to brainstorm the causes and effects to create the diagram. Figure 22 below is a sample Fishbone or Ishikawa Diagram template. Primary Cases (highlighted in blue) should be categorized into 6 institutional areas – People, Process, Facilities, Materials, Environment and Management.

Figure 22: Sample Fishbone or Ishikawa Diagram Template

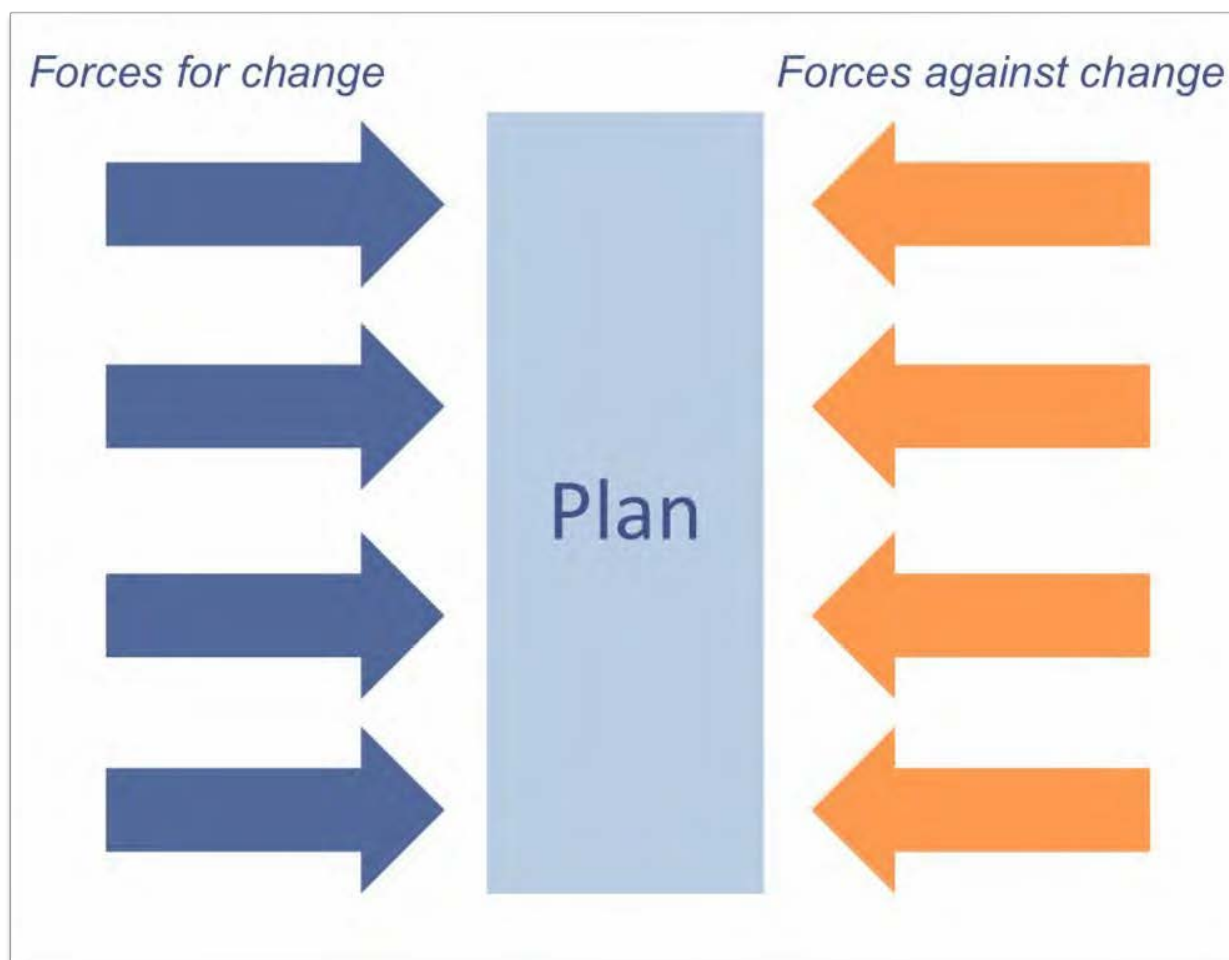


Force-field analysis

Force-field analysis is a useful tool for studying a situation that requires change. It is based on the idea that there are two opposing forces to change. One set of forces is driving the change while the other set resists.

The analysis rests on the simple proposition that strengthening the promoting forces can bring change or neutralize the resisting forces. It is a helpful tool because it promotes identification of all the forces involved. It is useful to remember that some of the resisting forces may be outside the institution's control and may not be worthwhile wasting time on. Effort should be spent on the areas it is possible to influence. Figure 23 below presents a simple Force-field Analysis Template.

Figure 23: Sample Force Field Analysis Template



Benchmarking

All organizations, public and private, are faced with increasing competition and those that provide public services have the additional demands of increased scrutiny and accountability. To meet these increased demands, new techniques have to be devised that allow institutions to stay ahead of the competition and allow them to demonstrate that they are performing well and providing value for money. Educational institutions need to develop tools that can be built into their own structures that allow them to learn both from their own successes and failures but also from the best practices of others. Benchmarking is discussed in greater details in the Strategic Guidelines for Strategic Planning for Mongolian HEIs which was also produced by the CSHER Governance Team.

Process Charting

This technique can be used to ensure that the institution knows who its customers are and can identify the resources required to service them. The process diagram provides data on the environment in which the process operates and the control that is exercised over it. Figure 24 below presents a simple process diagram template applicable to higher education institutions.

Figure 24: Process Diagram Template



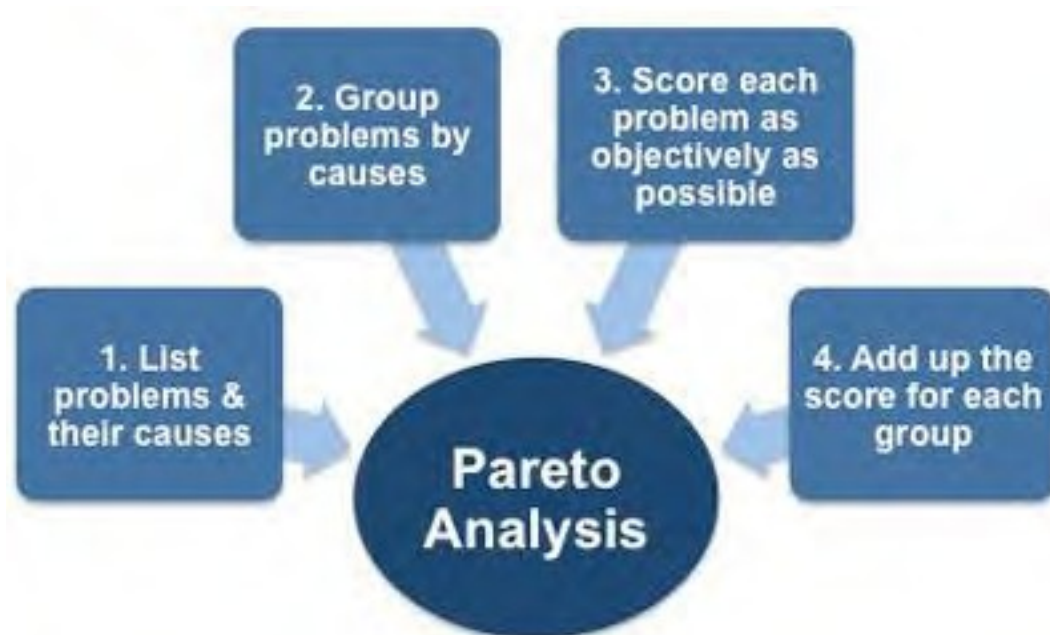
Flowcharts

Flowcharts are useful when a problem needs a systematic approach, or where an activity needs to be charted. They assist in identifying the steps in the process. They record the necessary sequence of stages, decisions and activities required. As part of an improvement process they provide a simple method of taking a critical approach to a problem. Figure 24 above is also a good example of a simple process flow chart.

Flowcharts provide a clear and easily understood diagrammatic representation of a process. What often takes pages of narrative to describe in print can be summed up in an easily understood flowchart.

For an educational establishment, charting its procedures for ISO9000, flowcharting provides a simple and useful means of describing its procedures. One of the important elements of flowcharting is the simple act of drawing them up. Charting a process or procedure improves knowledge of it and highlights areas for improvement.

Figure 25: Steps in a Pareto Analysis



Pareto Analysis

Pareto charts are named after the Italian economist Vilfredo Pareto, who at the end of the 19th century, while researching the distribution of wealth, came to the conclusion that the vast majority of wealth was in the hands of a tiny minority of the population. From this

analysis has developed the famous Pareto Rule that 80 per cent of problems arise from 20 per cent of processes. Sometimes known as the 80/20 Rule, the Pareto Rule is an important idea. If the 80 per cent problem areas can be identified they should be tackled first in any quality improvement process. Effort should be put into the areas that cause the most difficulty. Pareto charts are simply special forms of vertical bar charts that assist in the solving of quality problems. Pareto charts direct attention to the most pressing problems facing a team or an institution. Figure 25 above highlights the steps taken in a Pareto analysis. Organizing problems by causes, helps institutional administrators identify what is “causing” the most problems.

Career-path Mapping

Charting a pupil’s or a student’s career through the institution provides a simple means of identifying the milestones or the potential barriers which they will have to negotiate during their time at school or college. Each milestone is a potential problem area where differences in perception and expectation have the possibility of leading to errors, misunderstandings, and possibly failure. A valuable exercise for an institution is to establish the learner’s career-path and to identify against each milestone the quality characteristics and quality standards that should be in place.

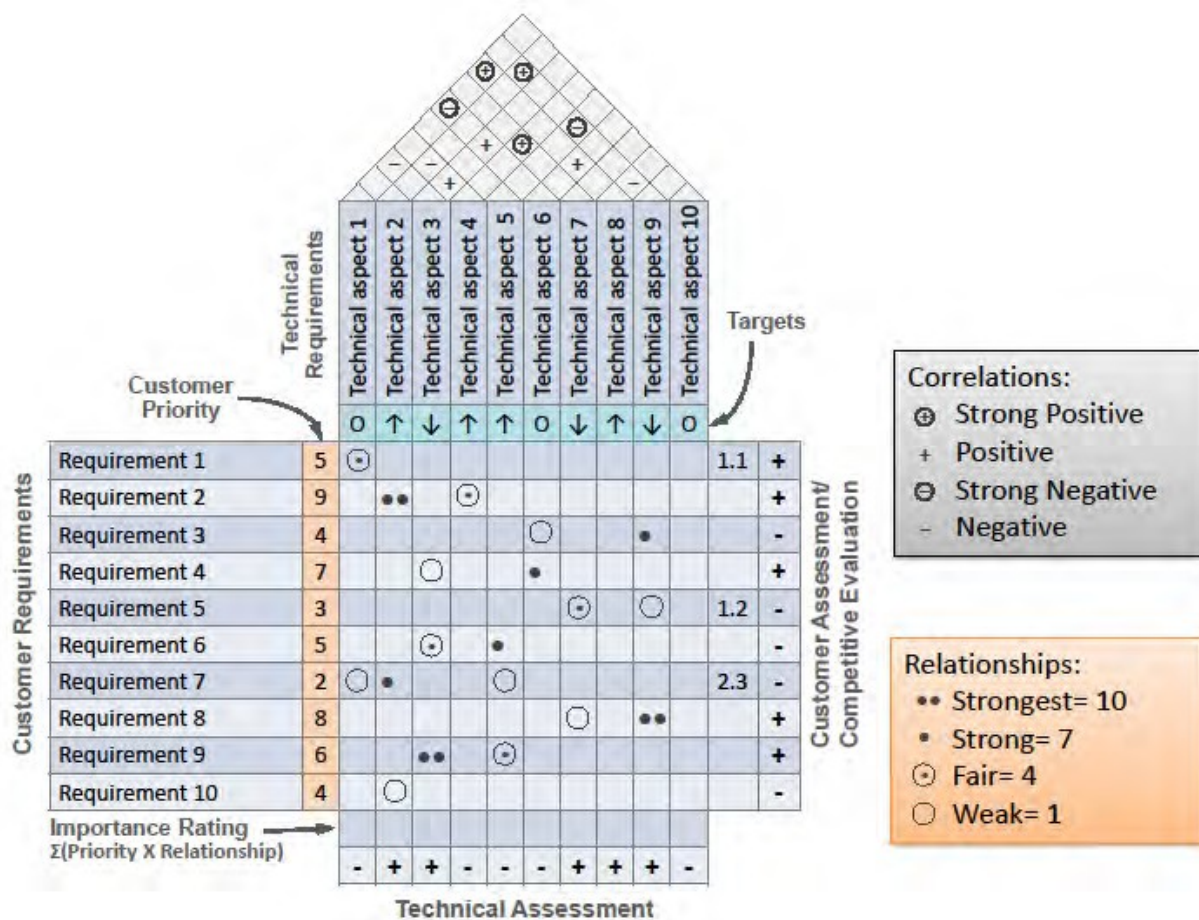
When considering using this tool it is important to note that many of the problems and conflicts are likely to occur when the student or pupil passes from one stage to the next, rather than within each stage. While curriculum delivery is often seen as the most important stage in the learner’s career, there is a danger of focusing all the institution’s attention on it at the expense of other career stages.

Quality Function Deployment

Quality function deployment or QFD is a technique used extensively by Japanese companies and increasingly by many leading Western higher education institutions when designing new programs or services. Put at its simplest, it involves finding out what customers want before designing new programs or services and ensuring that at every stage of the design process the customers’ needs are considered and incorporated. It is generally accepted in higher education TQM circles that while a new program or service may be technically acceptable, without the essential ingredient of QFD it can lack the additional elements of ‘surprise’ and ‘excitement’, which enable a new program or service to exceed the expectations of the targeted customer group and give the institution a marketing edge. To carry forward these ideas it is important to ensure that there is a continual flow of information going through the program design life cycle from initial concept, to detailed design, and through to the program going to the market.

Clearly, the ideas behind QFD can equally be employed in the service industries and in education. In today's educational marketplace, what are the factors that make one institution different from another? The basic curriculum is usually the same. It is the value-added which gives an institution the edge. Finding that value-added is usually not a matter of luck. It requires careful listening, detailed market research and a careful analysis of what customers want. Too often educational institutions provide only what they think their customer groups need. Figure 26 below presents a simple Quality Function Deployment Template for higher education institutions.

Figure 26: Quality Function Deployment Template

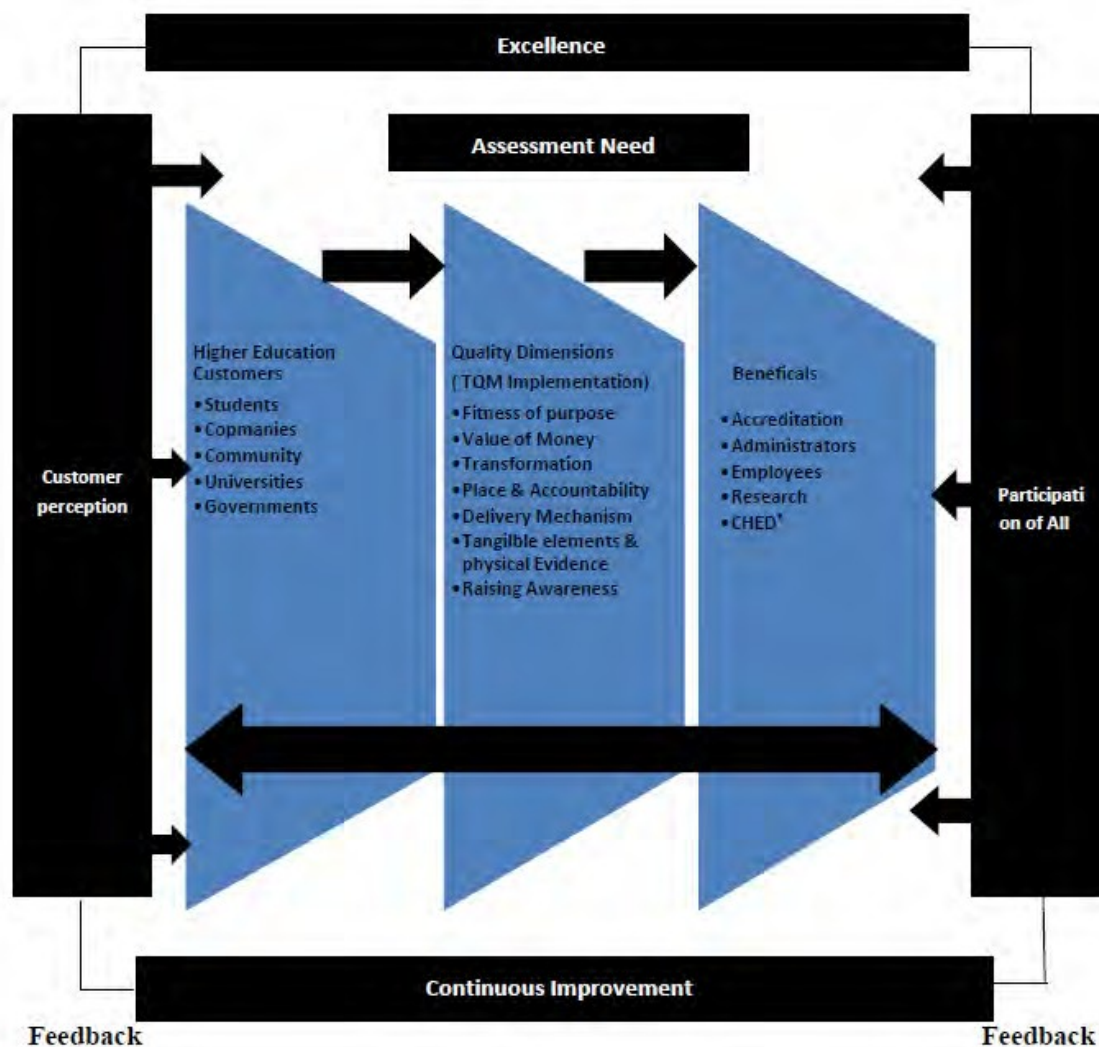


The QFD technique involves deciding what are the critical characteristics of any new program or service, charting these at each stage of design and production and establishing the customer requirements for them. Doing this in a detailed and systematic manner will ensure that the voice of the customer is heard long before a new program or service comes to the market. It highlights the critical issues from a customer's viewpoint and can deal with them before the program or service is launched. This clearly can result

in considerable saving, as it involves not having to put things right after the event. The technique can also be adapted to problem solving and management decision making. QFD is best tackled by teamwork and can be thought of as a systematic approach to addressing the problems raised by customers during the design and implementation stages. Like any tool it is not foolproof, but careful use should aid quality improvement and reduce the likelihood of significant errors.

While teachers may, in some circumstances, know best, it is usually not the case that they know best in all circumstances. Adapting the methodology of QFD of consulting and researching customers' views at each stage of designing or reviewing the 'product' can make a considerable difference to the way in which decisions are made and the quality of decisions taken.

Figure 29: Assessment and Total Quality Management



Measurement

One of the reasons for developing quality improvement processes is to build a successful school and in turn to provide students with the greatest possible degree of success. As a mission statement this is something that we can all subscribe to, but the issue is how can we best do this? What factors make a successful educational institution and how might these factors be linked to measurable indicators of success? The idea of *performance measurement* here is crucial because it is through measurement that we are able to analyze the *effectiveness* of quality improvement processes and through measurement that we are able to demonstrate our institution's *accountability* for the use of public resources. Figure 29 above shows the relationship of measurement and assessment in the total quality management framework.

Performance measurement and quality monitoring are crucial themes total quality management. They are powerful tools and can have a major impact on leveraging up quality. However, it is crucial that the control of these measurement tools is in the hands of the institutional practitioners, and preferably developed by them. They should not be forced on them by outside agencies. What quality measurement must not become is an exercise in imposing externally set targets on institutions. This not only deprives the institution of the ownership of its means of improvement, but it also forces on it an external inspection regime that can induce fear and stress.

Budgeting

One of the most underrated issues in total quality management is the relationship between quality and institutional budgetary management. Traditionally, as previously discussed, the effectiveness of TQM in education has largely revolved around issues of leadership, institutional mission, teamwork, student satisfaction and empowerment. While these are clearly key issues, without linking them to appropriate budgetary strategies they leave out a vital element in total quality. Without an appropriate and empowering budgetary process many of the TQM objectives are difficult to realize as they lack a relevant driving mechanism. In particular, the success of teamwork and empowerment so central to TQM is inextricably linked to the budgetary process. What does empowering teams mean if those teams do not have the resources to put their ideas into practice? Unless the institution's own resource allocation mechanisms parallel the devolution of responsibilities to teams explicit in TQM programs, in reality that devolution will be little more than a cosmetic exercise, and empowerment will be no more than a slogan. Real delegation of authority, which is the essence of empowerment, requires a real and effective control over resources.

A Strategy of Quality

'Quality is about customer delight rather than customer satisfaction. It is about total staff involvement rather than hierarchical, top-down system imposition. It is about incremental quality improvement rather than giant quality leaps. It is about living, loving, passion, fighting, cherishing, nurturing, struggling, crying, laughing...' Tony Henry

Quality does not just happen. It must be planned for. Quality needs to be a major plank in an institution's strategy, and needs to be approached systematically using a rigorous strategic planning process¹. Strategic planning is one of the major planks of TQM. Without clear long-term direction the institution cannot plan for quality improvement. Underlying the strategy must be the concept of strengthening the customer focus. A strong strategic vision is one of the most important critical success factors for any institution.

Strategic planning enables the formulation of long-term priorities, and it enables institutional change to be tackled in a rational manner. Without a strategy an institution cannot be certain that it is best placed to exploit new opportunities as they develop. Strategic planning directs senior managers' attention away from day-to-day issues and forces a re-examination of the main purposes of the institution and its key relationships with its customers.

Quality Framework

An effective institutional quality management framework is necessary for analyzing existing quality initiatives and for planning and implementing new ones. It assists institutions both in managing quality and in using quality management as a means of institutional development.

Figure 16 below outlines a sample Total Management Framework but every institution has to find its own route to quality for institutional initiatives. While the accountability inherent in quality system models is important, quality improvement will only take place through the creation of a culture of continuous enhancement and institutional self-assessment.

¹ See also Guidelines for Strategic Planning for Mongolian Higher Education Institutions prepared by the Mongolian HERP Governance Team.

Figure 16: Total Quality Management Framework



Quality frameworks developed by higher education institutions need to meet the special requirements of education and must make sense within the context of the pedagogic developments currently taking place. To be appropriate in the educational context a quality framework must concern itself with teaching and learning. The delivery of learning to students, who are the primary customers of the process, must therefore form the central focus of any quality framework for higher education institutions.

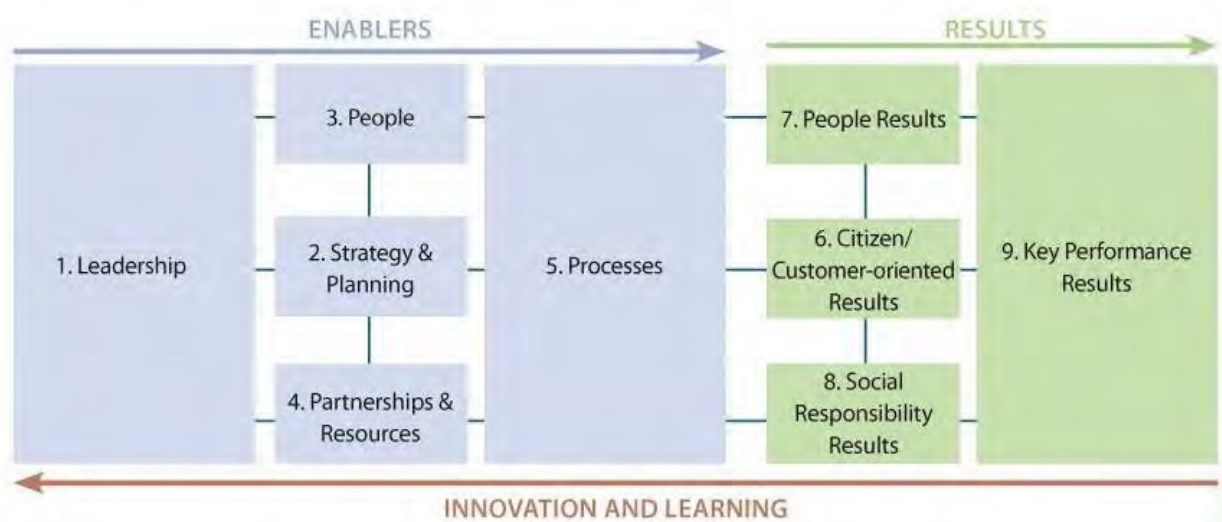
Components of a Quality Framework for HEIs

Devising a quality framework will require an institution to define its own standards for the principal attributes of quality, and setting up arrangements for achieving them. A number of important steps are involved and include:

- discovering what you are doing;
- questioning your methods and procedures;
- documenting what you intend to do;
- doing what you say you are doing;
- providing evidence that you are accomplishing what you are claiming to be doing.

Leadership and Strategy - Leadership and strategy are key elements in any quality framework. Quality management requires a commitment from senior management for quality initiatives to succeed. Linked to purposeful leadership, effective educational institutions need well-worked-out strategies to deal with the competitive and results-oriented environment in which they operate. Together with effective teamwork, leadership and strategy provide the engine for the transformational process of quality development. To be effective, educational institutions require processes for developing their quality strategy. Leadership and commitment to quality must come from the top. It is leadership that puts strategy into action and communicates the vision to the staff.

Figure 27: Common Assessment Framework



Self-Assessment - Institutional self-assessment is a major element of quality improvement and exemplifies the concept of the institution taking responsibility for its own quality signifying institutional maturity. It is an essential element of the culture of continuous improvement. It is the process by which educational institutions make considered judgements on their own performance and use these as the data for future enhancement of their service. An institution that takes self-assessment seriously is likely to be one that prospers. Self-assessment is a key to better meeting the needs of learners. The Common Assessment Framework², presented in Figure 27 below, provides a useful model for institutional assessment for higher education institutions.

The use of self-assessment or quality audit is an excellent first diagnostic step on the path to total quality. Having a self-assessment checklist is a standard against which the

² The Common Assessment Framework (CAF) is a result of the co-operation among the EU Ministers responsible for Public Administration. <http://www.eipa.eu/en/pages/show/&tid=85#&title=topic>

institution can measure itself. It provides a framework for building up an understanding of quality. It allows the organization to discern its strengths and weaknesses and from such an analysis to decide how best to make improvements. As such, self-assessment is a catalyst for making educational improvement and driving up standards. From this an organization can build an action plan for its future development. Figure 28 below outlines an institutional self-assessment process.

Figure 28: Institutional Self-Assessment Process



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Appendix 1: Example of Balanced Scorecard Use in Higher Education

