# AN ANALYSIS OF THE STRATEGIC MANAGEMENT ISSUES IN PRIVATE UNIVERSITIES OF BANGLADESH

BY

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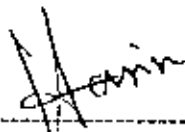
## BY

## ABU ZAFAR MD. RASHED OSMAN

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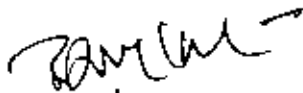AND TECHNOLOGY, DHAKA-1000

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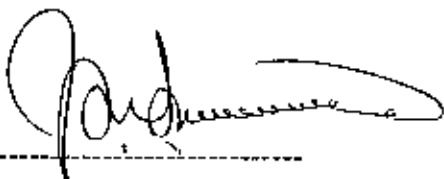
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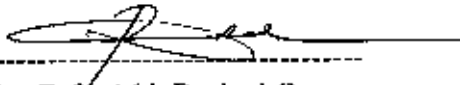Engineering, BUET, Dhaka-1000

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# CANDIDATE'S DECLARATION

It is hereby declared that this thesis or any part of it has not been submitted elsewhere for the award of any degree or diploma.

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# ABSTRACT

**An Analysis of the Strategic Management Issues in Private Universities of Bangladesh**

Bangladesh is a densely populated country with population of about 130 million. The demand for higher education is large and is increasing day by day. But the number of seats at the public universities is very limited. Therefore, huge number of students remains away from admission in the higher education institutions and human capital is not converting into human resources. To overcome this dire situation of higher education enrollment, the Government of Bangladesh passed a Bill of Private Universities in Bangladesh. Under this Private University Act in 1992, 53 private universities are operating in the country. Recently, quality of education in private university has become the burning issue of higher education.

To meet the quality in education, the writer has emphasized on several strategic management issues which university should pursue to remain competitive and to sustain in the competitive market. These are: (i) Quality Education Strategy (ii) Teaching & Learning Strategy (iii) Quality Function Deployment (iv) Human Resource Development Strategy (v) Marketing Strategy (vi) Quality of Research & Education Strategy and (vii) ISO 9000 in Higher Education.

Quality Education Strategy focuses on curriculum, library facilities, equity, foreign academic collaboration, credit hour system, awards, industrial attachment etc. Teaching and Learning Strategy focus on class-room lectures, simulation exercise, homework & quiz, visual aid, model test, study tour, teacher's evaluation etc. Quality Function Deployment focuses on customer (student) expectations, often referred to as the voice of the customer. It is a planning tool used to fulfill student expectations. Human Resource Strategy focuses on recruitment, training and development, appraisal, and promotion of employees. Marketing Strategy focuses on relationship marketing and theories of marketing in higher education. Quality of Research & Education Strategy focuses on nation system for quality education and internal system for education quality management. ISO 9000 Strategy basically describes how its various elements can be fitted and contributed towards quality education in private universities' settings.

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# LIST OF ABBREVIATIONS

**Abbreviations**                          **Meaning**

ANOVA                     - Analysis of variance
AIUB                      - American International University of Bangladesh
BBA                       - Bachelor of Business Administration
BUET                      - Bangladesh University of Engineering & Technology
CGPA                      - Cumulative Grade Point Average
EWU                       - East West University
ISO                       - International Organization for Standardization
IUB                       - Independent University of Bangladesh
IBA                       - Institute of Business Administration
JSU                       - Jacksonville State University, AL, USA.
MRP                       - Marketing Public Relations
MAD                       - Mean Absolute Deviation
MBA                       - Master of Business Administration
MIS                       - Management Information System
NSU                       - North South University, Dhaka
PR                        - Public Relations
Ph.D.                     - Doctor of Philosophy
Pro VC                    - Pro-Vice Chancellor
QFD                       - Quality Function Deployment
QA                        - Quality Assurance
SEW                       - South East University, Dhaka
SWOT                      - Strength, Weakness, Opportunity & Threat
TQM                       - Total Quality Management
UGC                       - University Grant Commission
UniSA                     - University of South Asia, Dhaka
VC                        - Vice Chancellor

## 1.1 Background of the Study:

The demand of higher education is large and is increasing day by day in our country. But number of seats at the public universities is very limited compare to number of applicants. Therefore, huge number of qualified students is not getting opportunity for higher education in public universities. Thus, getting permission from the Government 52 private universities have formed to meet the great demand for higher education, to avoid session jams, and protect students for overseas education. Their purpose is quality education with affordable cost. But unfortunately, very few private universities are maintaining this. To become a competitive and a qualitative institution in all respects strategic directions are necessary. The purpose of strategic management relates to continuous quality improvement and develops infrastructure, which encourage all employees to focus on quality and in a common direction. The intention about this project is what would be the best strategic directions ·for private universities, which can contribute substantially to improve the quality of education. Few strategic issues have been discussed in this study, which will significantly contribute towards continuous quality education with proper directions.

## 1.2 Scope of the Study:

The scope of the report is limited to the understanding of the strategic management issues only in private universities of Bangladesh and analysis has been done based on few leading private universities of Bangladesh, two public universities of Bangladesh, and one foreign university. In this study, the vital source of information is secondary information. Also, few primary data have been collected from survey to identify the customer satisfaction level and expectations. The demand for higher education is large and scope is limited. To overcome this dire situation, 52 private universities have been established with the proper authorization of UGC (University Grant Commission) in Bangladesh within 12 years of span. Now, strategic direction is

imperative to develop skill, discipline, and sustaining continuous progress of private university at national level.

## 1.3 Methodology:

- Few private universities were identified as a basis for comparison the strategies they pursue.
- Some top universities of Bangladesh & some private universities of the USA were identified as benchmark for comparison against a less renowned university in Bangladesh.
- A few top public universities were identified for comparison against all private universities in Bangladesh.
- Critical strategic issues in education such as ISO in education and training, research, and marketing strategies were studied.

## 1.4 Limitations:

Institutions (private) w ere very c onservative in providing information about their institutions, which hindered the information gathering process. There is also lack of adequate secondary information. Both primary and secondary data have been collected and used in this study.

# CHAPTER 2

# HIGHER EDUCATION AND PRIVATE UNIVERSITY

## 2.1 PROPER EDUCATION KEY TO DEVELOPMENT:

Since ancient times education has been recognized as an important factor for the amelioration of human conditions in a societal setting. Greek thinkers like Socrates, Plato, and Aristotle were all aware of the role of education in society. Plato, in fact, had a very comprehensive.

Scheme of education for his contemplated ideal state. He clearly understood that the philosopher king should have sufficient education to conduct the affairs of the state. In other civilizations also education was accorded an important place in their scheme of things, especially in their objective of attaining a good society. Although education has been recognized as something important, it is in recent times that there have been theorizations about the casual link between education and development. Economists like Theodore Schultz, Gary Becker, and Amartya Sen have written extensively on the contribution of human capital to economic growth. They theorise that education through providing skills can make people more productive and this give them chances to earn higher wages in the labor market. Human capital has been define as "the stock of useful, valuable and relevant knowledge built up in the progress of education and training". Investment in human capital, through schooling, increased the productivity of labour. Several World Bank studies show strong support in favor of this school. The World Bank has concluded from their analyses of the experiences over 192 countries that human and social capital comprises two-thirds of the wealth of nations. Social capital has been concluded to mean sound institutions and good governance. Theorists cite the case of Japan as a glaring example in support of the human capital thesis. It is said in the case of Japan that human and social capital contributed 85 percent to the total national wealth while physical capital (machinery, building, and physical infrastructure) 14 percent and natural capital only 1 percent. It can be inferred from this phenomenon that the dearth of the natural capital may be easily compensated through the development of the human capital but the reverse may not be true. Empirical evidence also shows further that there is no industrial society today with an adult literacy rate less than 80 percent. No illiterate society has ever become an industrial tiger of any stripe or color. From the foregoing discussion it is evident that education is crucial for economic development in the modern world. In fact, higher education can transform human beings into human capital, which

ultimately becomes one of the vital ingredients of nation building itself. We see that only those societies that have acquired the basic tools of essential knowledge and skill can successfully compete in today's global markets. This has been borne out by the experiences of Japan and other East Asian industrializing countries such as South Korea, Hong Kong, Singapore, Malaysia and China. These countries have abundant human labor. But this factor alone could not raise them to their present height of market leadership. They could scale to this pinnacle of prosperity and massive labor productivity only when they combined knowledge and skill with abundance of low-wage labor through education. Thus in terms of human development objectives, education is an in itself and not just a means to end (*News Today, News Report, October8,03*)

## 2.2 Problems of Higher Education & Roll of Private Universities:

Bangladesh is a densely populated country with population of about 130 million. The demand for higher education is large and is increasing day by day. But the number of seats at the public sector universities is limited. For example, about 70,000 candidates applied for 4,343 seats in the recent admission test of the University of Dhaka at the Bachelor's level. To overcome this dire situation, the then Government of Bangladesh passed a Bill of Private Universities in Bangladesh. Now the number of Private University is nearly 51. There were several other reasons behind allowing the private universities in the country:

The first obvious reason is to meet the great demand for higher demand for higher education. Secondly, to avoid session jams and political disturbances which are common in the public universities. Thirdly, the exodus of a good number of students to overseas universities incurs a large amount of foreign exchanges for the country. The government is also trying to expand education at the lower levels, namely, primary, secondary, and higher secondary levels, especially for the female students. These are praiseworthy efforts on the part of the government. However, the government should give proper attention to one important aspect of education. This has to deal with morality and ethics in the educational curricula. Education devoid of morality cannot take a nation very far. It would be useful if the relevant authorities try to incorporate moral values in the education system ( *Asian University Offers Quality Education, Prof. Abulhasan M. Sadeq, News Today, Oct08,03*)

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Educational Minister stressed the need for quality education at private universities to cater to the need of increasing number of business and financial organizations.

In today's world, the skill and discipline of the students of private universities are more important than anything else in sustaining continuous progress and development at national level, he told the gathering. Without student politics enable students to pursue their studies unhindered and students got their degrees with in the stipulated period, which should be followed by state-run universities.

In this regard, he mentioned that credit hour system, grade point average and cumulative grade point average of private universities were internationally recognized which should be introduced in public universities. Referring to transfer of knowledge, the Education Minister (Dr. Osman Faruqe) informed that those who went abroad to get higher degree have returned to Bangladesh to teach at private universities with high salaries protecting the brain drain. The number of private universities stands at 49. ( *The News Today, Thursday, Aug 21, 2003*).

**2.2.1** Recent Scenario of Private University in Bangladesh:

- 14- private university starts their courses without getting the permission from UGC.
- Entrance-students' quality is very poor.
- No own campus
- No VC & Pro VC
- No Registrar
- Insufficient teachers
- Classes are taught by the College Teaches
- Students are getting admission without exposing their minimum qualification in different majors
- Operations of the university are towards profit oriented
- Governing body of the universities is formed by the family members
- The Private University Act provides that every private university should have five acres of land for its own campus and a university should shift to its permanent campus from a temporary one within five years. Some private universities have procured land in the capital's suburbs to set up permanent campus, but the process seems to have ended there.
- The UGC laid down that every faculty should have at least four permanent faculty members, including one professor. But most private universities do not follow this criterion.
- Over 40,000 students now study at the private universities, which have less than 1000 teachers, many of them part-timers.
- In some universities, there are heads of department but no permanent faculty members. Teachers are hired from different public universities to conduct courses.

- The committee members of UGC found that many of the universities are located in residential areas or hosed in multi-storied commercial buildings, which also house garment factories and various firms.
- Some universities have only two faculties- business and computer science.

*(Shabul Houqe, Scenario of Private University, The Daily Ittefaq, March 12, 2004, Page 1&2)*

## 2.3 University of South Asia and Its Education:

### 2.3.1 Foundation:

The University of South Asia (UniSA) is being established as a private university under the Private University Act of 1992, with a view to improving the human resources and achieving undisputed leadership in the field of education. Its curriculum has been approved by the University Grant Commission of the Government of the Peoples' Republic of Bangladesh and also been appreciated by some of the world class University abroad.

UniSA will lead the way its Career focus curriculum and a long-standing commitment to quality teaching and learning and innovative research. It is a career oriented and dynamic university committed to leading the way in higher education and research. UniSA is dedicated to high quality teaching and excellence in education. The student-centered, flexible and innovative approach takes full advantage of new directions in teaching and learning and in using new technologies to provide education of the highest quality. Our emphasis is on enriching the learning experiences and outcomes of an increasingly diverse student population.

The University has just started its functioning at a campus of around 3 Bighas of Land with two multistoried building in Banani Residential Area. The campus offers idyllic environment for an academic institution. Plenty of open spaces are available around the campus for the students to move about for rest and recreation. At the University, we are dedicated to integrating technology into every fact of your education that includes creating an ideal setting for learning. We have well equipped teaching air conditioned class room with modern teaching tools facilities, high speed digital networks computer lab, the Group Decision Support Lab, multimedia lab and Micro-computing Lab surrounding an open area where students work individually or in teams.

The Auditorium is a technology showcase, offering electronic presentation and recording equipment, multiple screens, and so on.

### 2.3.2 Mission:

Expand the scope of local human resources by improving them as world standard through teaching and explore the employment market to meet the expanding demand for skilled professionals.

### 2.3.3 Vision:

To improve the human resources by educating them *state-of-the-art* standard through teaching according to the industry-requirement and to achieve undisputed leadership in the education field.

### 2.3.4 Objectives:

▶ To provide a specialized and high quality comprehensive education.

▶ To provide world-standard education in Bangladesh.

▶ To establish joint degree programs & credit transfer programs.

▶ To create a congenial academic environment for the youth.

▶ To improve the quality, talent and skills of individuals.

### 2.3.5 System of Education:

The University has designed the curricula and introducing modern teaching method accordingly to meet the growing technological challenges confronting the nation and the world as a whole. The curricula and syllabi of the courses are relevant to the current needs and respective to the emerging challenges. The education system of the University reflect the interest of students from all parts of the world for enhancing their leadership quality and prepare them to serve in a multi-cultural, multi-institutional, global and technologically developed society.

### 2.3.6 Organization:

The University will be controlled and governed by the Bangladesh Private University Act 1992 and Amendment Act 1998. The Chairman will be the administrative chief of the University and the academic chief will be the Vice-chancellor who will be assisted by a fully independent University Board of Governors (Syndicate), a Pro vice-chancellor, a Treasure, an Academic

Council, Registrar and other officials and staffs of the University as per rules and regulations of the Private University Act.

## 2.3.7 Scope of the University:

The University will be independent private university having the power and authority of providing education and training and to confer degrees, diplomas and certificates in all branches of knowledge including Business Administration, Computer and Information Technology and any other discipline that may require as per need and time. The levels of concerned education will have undergraduate (Bachelor), graduate (Master) and Ph.D. programs and also having under-graduate and post-graduate diplomas and certificates. However, these programs will be offered in phases. The University will offer 2 semesters in a year and a total of 8 semesters in 4-year Bachelor's degree and 2 semesters in a year and a total of 5 semesters in 2-3 years Master's degree in some selected disciplines. Other disciplines will be covered gradually with the approval of University Grant Commission. It will be worthwhile mentioned that the University may offer a short semester (summer semester) for make up.

## 2.3.8 On Campus Studies:

Campus based instructional mode will follow the usual practice of class-room lectures and interactions, practical exercises, assignments and class-room tests in line with a full credit hour system. In this connection, a reasonable emphasis will be given on particular in the class, participation in practical works at field level, completing assignments and appearing in the class teats.

In addition to the traditional full time program, the university will offer master and doctoral degree programs through distance learning. Distance learning programs will be designed for external students living away from the university to engage themselves in study or research under the direct supervision of a university faculty or under the supervision of local mentors, who have been approved and appointed by the university and who work under its aegis. The textbooks and syllabi for each course are delivered to the student for home-based study. Completed course work will be submitted by mail or e-mail to The University faculty for evaluation and grading.

There will no residency requirements for distance learning programs but candidates must sit for the examination with the on campus students. They may also require attending a viva voce to defend their thesis.

### 2.3.9 Faculty and Resource Persons:

The University will have services of well-qualified, trained, and resourceful persons for its education purposes from local and foreign countries as per rules and regulations. For campus-based education, both full-time and part-time faculty may be appointed.

The experience of distance learning education in the present world suggests, however its faculty may be in a location far from the venue of the institution that provides distance education; since regular classroom instruction is not required in this mode of education. This is an additional advantage since it provides the flexibility to choose well-qualified and experienced faculty from different places locally and internationally. The University will have availability of this advantage for its distance learning education. The University will also recruit qualified academicians from overseas in the near future after having received the approval for the university.

### 2.3.10 Library:

The University has a rich library with the facilities of printing as well as electronic media. Presently our library has more than 3000 books on different subjects. Students have the access to borrow them and the university will provide all the textbooks to the students.

### 2.3.11 Class Rooms Facilities:

There are purpose-built classrooms with modern teaching facilities. Some of the facilities are mentioned below:
► Air conditioned class rooms with modern acoustic arrangement
► Electronic presentation facilities
► Comparatively small class size
► Comfortable sitting arrangement

### 2.3.12 Computer Lab:

The University has two computer labs in the university. All the computers are equipped with latest hardware and software. Computers in the lab are connected to each other through Local Area Network. Internet facilities are also available for the students.

### 2.3.13 Foreign Academic Collaborations:

With increasing globalization of education at the university levels, there is a strong compulsion to promote interaction, especially with institutions of higher education in the western countries. Such interaction provides access to ever changing scenarios of modern education system and the most up to date innovative development in teaching-learning methodology. Recognizing this imperative, University of South Asia has already initiated a number of collaborative programs with universities in the USA, UK, Australia and Canada.

### 2.3.14 Education Policy and Standards:

The University emphasizes on the quality of educational activities. Standards are set in accordance with the demanding environment. It encourages students to pursue continuous improvement in education and assists them to attain their expected goals. The University also recommends necessary amendments in educational programs to comply with time and need.

Maintaining the fact that diversity plays a major role in education, all member schools share a common goal-to prepare you in accordance with the professional and social complexities of the world. The most effective way by which this purpose is accomplished is the increased interaction among the students. Accordingly, the university bears a clear sight of its mission-development of its faculty, preparing the curricula and instructions. In this process, each program requires to achieve the minimum level of performance consistency with its overall mission while meeting the international standards.

So, the courses focus not only on the present context but also on the future vision. Preparing the curricula, developing the faculty and improving the intellectual activities has been conducted with proper direction and guidance. The University would also be concerned about the students' future careers, critical reasoning ability, problem solving skills and so on.

### 2.3.15 Steps Regarding Academic Activities:

Evaluation:

On receipt of a student's complete application for admission, the committee of evaluation and Admission calculates and assigns the number of credits to the applicant. The maximum number of credits, which may be awarded for prior academic achievements, are mentioned in the brochure.

Study Plan:

In step two, the university appoints a Faculty Coordinator to each student who then prepares a Study Plan for his/her degree program. The study plan includes the following:

- Goals of Study Plan.
- Methods of meeting these goals.
- Time required to complete the degree program.
- Appointment of Academic Supervisor(s).

Completion of Study Plan:

In step three, the student undertakes and completes the assigned courses or a program of study and research within the Study Plan framework. The supervised study and research usually culminates in a dissertation of thesis, which is submitted to the university for evaluation and examination.

Evaluation and Examination:

In step four, the University evaluates and examines the course work-study program/the dissertation or thesis completed by the student. The University reserves the right to appoint more than one examiner for each student. Decisions of the examiner(s) are binding on the University and the Student.

Results and Award of Degrees:

After the report(s) by the examiner(s), the University declares the results and awards degrees to successful students.


**2.3.16 Monitoring and Controlling Forecasts:** An organization needs to determine why the actual demand differed significantly from that projected. University of South Asia monitor forecasts to ensure that they are performing well is to employ a tracking signal. A tracking signal is a measurement of how well the forecast is predicting actual values. As forecasts are updated every semester, the newly available demand data are compared to the forecast values. Management wants to determine whether more funds are needed for promotional activities or not. What marketing strategy should implement for future to increase students?

The tracking signal is computed as the *running sum of the forecast errors* (RSFE) divided by the mean absolute deviation:

Tracking Signal = RSFE/ MAD

$$= \sum \text{(actual demand in period i} - \text{forecast demand in period i) / MAD}$$

Where, MAD $= \sum \big| \text{forecast errors} \big| \% \text{ n}$

Positive tracking signal indicate that demand is greater than the forecast. Negative signals mean that demand is less that forecast. A good tracking signal, that is, one with a low RSFE, has about as much positive error as it has negative error. In other words, small deviations are okay, but the positive and negative deviations should balance so that the tracking signal centers closely around zero.

Once tracking signals are calculated, they are compared to predetermined control limits. When a tracking signal exceeds an upper or lower limit, a signal is tripped. This means that there is a problem with the forecasting method and management may want to reevaluate the way it forecasts demand. See the figure # 1.

How do firms decide what the upper and lower tracking limits should be? There is no single answer, but they try to find reasonable values – in other words, limits not so low as to be triggered with every small forecast error and not so high as to allow bad forecasts to be regularly overlooked. George Plossl and Oliver Wight, two inventory control experts, suggested using maximums of ± 4 MADs for high-volume stock items and ± 8 MADs for lower-volume i tems ( *George Plossl a nd Oliver Wight, Production and Inventory Control, Prentice Hall, Englewood Cliffs, NJ, 1967*). Other forecasts suggest slightly lower ranges. One MAD is equivalent to approximately 0.8 standard deviation, so that ± 2 MADs = 1.6 standard deviations, ± 3 MADs = 2.4 standard deviations, and ± 4 MADs = 3.2 standard deviations. This suggests that for a forecast to be "in control". Here, 89% of the errors are expected to fall within ±2 MADs, 98% within ±3 MADs, and 99.9% within ±4 MADs. To prove these percentages , just set up a normal curve for ±1.6 standard deviation (Z values). Using the normal table in Appendix, find that the area under that curve is 0.89. This represents ±2 MADs. Similarly, ±3 MADs = 2.4 standard deviations encompasses 98% of the area, and so on for ±4 MADs ( *Barry R. & Ralph M. Stair, Quantitative Analysis for Management, Sixth Edition, pp197-198, 1997*)

The following example shows how the tracking signal and RSFE can be computed from University of South Asia's three-semester data. The objective is to compute the tracking signal and determine whether forecasts are performing adequately.

| Semester | Forecast Demand | Actual Demand | Error | RSFE | Absolute Forecast Error | Cumulative Error | MAD | Tracking Signal |
|---|---|---|---|---|---|---|---|---|
| Fall, 03 | 60 | 42 | - 18 | -18 | 18 | 18 | 18 | -1 |
| Spring,04 | 30 | 26 | - 04 | -22 | 04 | 22 | 11 | -2 |
| Summer,04 | 30 | 27 | - 03 | -25 | 03 | 25 | 8.33 | -3 |

Data Source: University of South Asia, Banum

MAD = $\Sigma$ Absolute forecast error / n = 25/3 = 8.33

Tracking Signal = RSFE/MAD = - 25/8.33 = -3.00

Here, Summer semester's forecast is better because it has low RSFE than others and tracking signal is within the upper and lower control limits.



Tracking Signal Graph
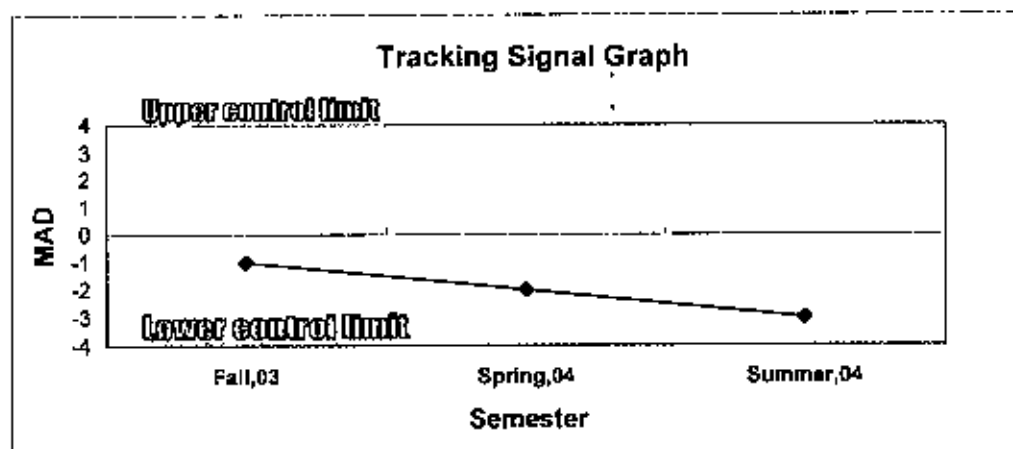
**Figure #1**

**Class Attendance**: University of South Asia highly encouraged students for class attendance. They think class attendance has good correlation with final score. Thus, they decided to maintain at least 80% class attendance in each course. But they did not justified by using any data analysis for implementation of class attendance. To find out the real justification about class attendance,

24 random data have been selected from three different courses of BBA & MBA. Total population was 85 and sample size, n = 24.

To analysis this, correlation techniques have been used below.

| STUDENT NUMBER | ATTENDANCE RATE (X) | FINAL SCORE (Y) | $X^2$ | $Y^2$ | XY |
|---|---|---|---|---|---|
| M0903008 | 79% | 88 | 6241 | 7744 | 6952 |
| M0903009 | 100% | 79 | 10000 | 6241 | 7900 |
| M0903014 | 64% | 78 | 4096 | 6084 | 4992 |
| M0903013 | 93% | 76 | 8649 | 5776 | 7068 |
| M0903019 | 93% | 77 | 8649 | 5929 | 7161 |
| M0903010 | 100% | 78 | 10000 | 6084 | 7800 |
| M0903007 | 71% | 79 | 5041 | 6241 | 5609 |
| M0903003 | 71% | 80 | 5041 | 6400 | 5680 |
| M0903011 | 71% | 79 | 5041 | 6241 | 5609 |
| M0903022 | 79% | 79 | 6241 | 6241 | 6241 |
| M0903015 | 79% | 75 | 6241 | 5625 | 5925 |
| B0309001 | 78% | 79 | 6084 | 6241 | 6162 |
| B0309002 | 100% | 88 | 10000 | 7744 | 8800 |
| B0309003 | 100% | 84 | 10000 | 7056 | 8400 |
| B0309004 | 93% | 83 | 8649 | 6889 | 7719 |
| B0309006 | 93% | 87 | 8649 | 7569 | 8091 |
| B0309007 | 89% | 69 | 7921 | 4761 | 6141 |
| B02040101 | 92% | 68 | 8464 | 4624 | 6256 |
| B02040103 | 69% | 61 | 4761 | 3721 | 4209 |
| B02040105 | 77% | 61 | 5929 | 3721 | 4697 |
| B02040109 | 85% | 75 | 7225 | 5625 | 6375 |
| B02040107 | 100% | 65 | 10000 | 4225 | 6500 |
| B02040108 | 100% | 54 | 10000 | 2916 | 5400 |
| B02040113 | 77% | 89 | 5929 | 7921 | 6853 |
| | $\sum Xi = 2053$ | $\sum Yi = 1831$ | $\sum X_i^2 = 178,851$ | $\sum Y_i^2 = 141,619$ | $\sum X_iY_i = 156,540$ |

X –bar = 2053/24 = 85.54,   Y-bar = 1831/24 = 76.29

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.0347496 |
| R Square | 0.0012075 |
| Adjusted R Square | -0.044192 |
| Standard Error | 9.3581007 |
| Observations | 24 |

ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 2.328278671 | 2.32928 | 0.026598 | 0.871937662 |
| Residual | 22 | 1926.629054 | 87.57405 | | |
| Total | 23 | 1928.958333 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 9 |
|---|---|---|---|---|---|---|---|---|
| Intercept | 78.587399 | 14.20563225 | 5.53213 | 1.47E-05 | 49.12888959 | 108.0481 | 49.12889 | 108.0 |
| X Variable 1 | -2.68376 | 16.4558569 | -0.16309 | 0.671938 | -36.81115465 | 31.44364 | -36.811155 | 31.44 |



## X Variable 1 Line Fit Plot

X Variable 1= Attendance Percentage
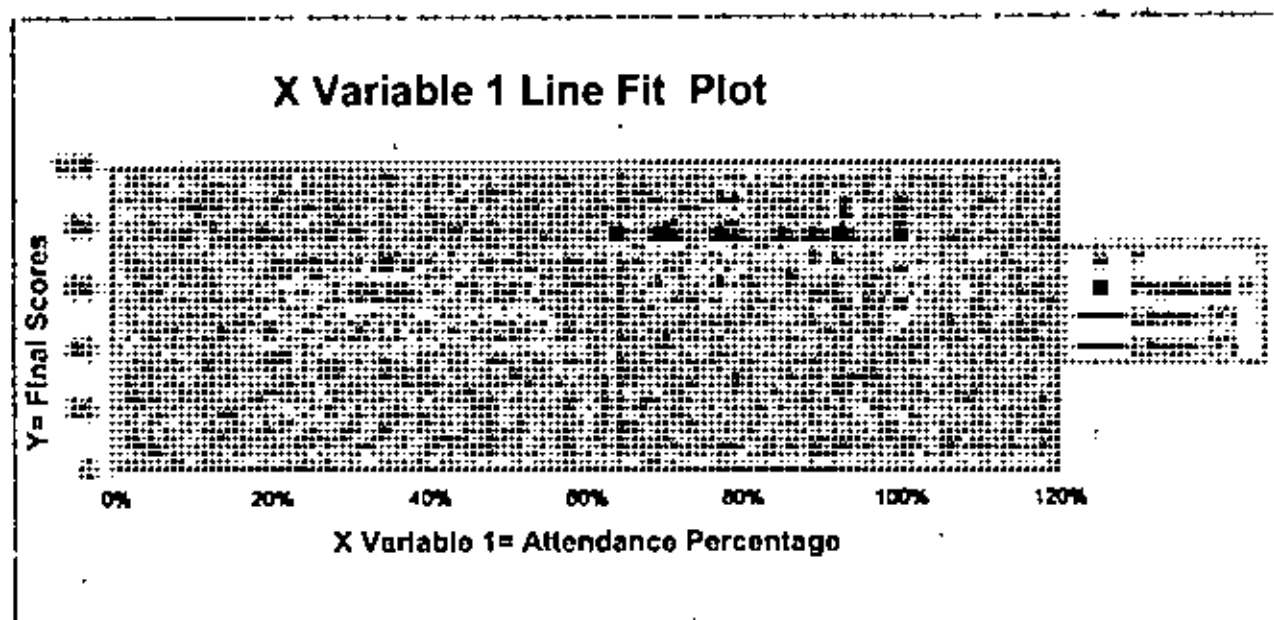
Y= Final Scores

Figure #2

From the above calculation and graph we found that there is no correlation between class-attendance percentage and final score because $R = .034$. At least $R = 0.70$ indicates relationship between two variables. This kind of technique would be useful to other universities but the result would not be same because every university is unique in nature.

(a) If class attendance is 80%, what would be the final score?

$\hat{Y} = a + bX = 78.58 + (-2.68 \times .80) = 76$

Here, $\hat{Y}$ = value of the dependent variable, a = Y-axis intercept

b = slope of the regression line, X = independent variable

(b) If class attendance is 70%, what would be the final score?

15

$\hat{Y} = a + bX = 78.58 + (-2.68 \text{ X } .70) = 77$

**(c) If class attendance is 60%, what would be the final score?**

$\hat{Y} = a + bX = 78.58 + (-2.68 \text{ X } .60) = 77$

## 2.4. SWOT Analysis:

A SWOT analysis refers to the process of examining a firm's internal & external environments for important strengths, weaknesses, opportunities, and threats.

Understanding the story involves evaluating the strengths, weaknesses, opportunities, and threats. It provides answers to several questions about what future resource strengths and capabilities the company will need to respond to emerging industry and competitive conditions and t o p roduce s uccessful b ottom-line r esults. Here, w e a nalyzed t hree p rivate u niversities t o find out the common weaknesses and to suggest appropriate action to be taken into consideration. These are listed below:

- Mostly non-terminal degree-holders faculties teach graduate programs.
- Failure to retain competent faculty members.
- No significant research facilities.
- Failure to offer required courses.
- Small library.
- Campus is in the commercial location.
- Grading system is not uniform.
- No significant out door sports facilities.
- No customer satisfaction survey
- 80% full-time faculty is not available in most universities

The SWOT information are given in the following tables. Some of those have been collected from published reports (Rahman Sajedur, A Marketing Plan for Royal Roads University, May 15,2001, p 47, Graduate Bulletin 1998-1999, MBA program, IBA, Graduate Bulletin, 1996 1997, Jacksonville State University, Alabama, June 1996, America's Best Colleges, US News & World Report, 1996, p 48 & 13), where as some others are obtained from field.

**North South University (NSU) – Private University**

| Strengths | Weakness | Opportunity | Threat |
|---|---|---|---|
| ✔ Higher profit margin<br>✔ Perceived high quality of MBA<br>✔ Image and reputation<br>✔ Brand loyalty of MBA in the job market<br>✔ Strong infrastructure & excellent learning facilities<br>✔ Strong financial position<br>✔ Convenient location<br>✔ Purpose built campus<br>✔ Selection for admission is moderately competitive. | ✔ Centralized control<br>✔ Higher break-even volume required to support its huge infrastructure.<br>✔ Lack of quality faculty members<br>✔ Failure to retain competent faculty members.<br>✔ Low market share.<br>✔ High cost of its MBA.<br>✔ Failure to offer required courses.<br>✔ Campus is in commercial location.<br>✔ Graduate programs taught by mostly non-terminal degree-holders faculties.<br>✔ No research facilities are available. | ✔ Faculties are mostly foreign-degree holders (North American)<br>✔ Language of instructions is fully English<br>✔ Teacher –student communication norms is in English<br><br>✔ Going to setting own campus is in prime location of Dhaka city within short period of time. | ✔ If IDA & DU increase their seats triple for MBA & BBA programs.<br><br>3 If IBA opens opportunity for wealthy students to to admit in the BBA & MBA program<br><br>3 If BUET opens MBA in Operations Management, Industrial Engineering Management, Financial Management, and Marketing Management For both meritorious & Wealthy students. |

Source: *(Rahman Sajedur, A Marketing Plan for Royal Roads University, May 15,2001, p 47)*

**Independent University of Bangladesh (IUB) --- Private University**

| Strengths | Weakness | Opportunity | Threat |
|---|---|---|---|
| ✔ Joint collaboration with MSM.<br>✔ High quality of curriculum<br>✔ Image and reputation.<br>✔ Strong financial position<br>✔ Higher profit margin<br>✔ Perceived high quality MBA.<br><br>✔ International Advisory Panel for curriculum Matters, course Requirements and Academic standards. | ✔ Confines to small segment of the target market.<br>✔ Less control over pricing<br>✔ Higher break-even volume required to support its infrastructure.<br>✔ Low market share<br>✔ High price of its MBA.<br>✔ Relative slow growth of their target market segment<br>✔ Lack of product lines for targeting the large middle income segments<br>✔ Lack of product length<br>✔ Lack of brand loyalty<br>✔ Residential small campus<br>✔ Admission is less competitive. | ✔ Faculties are mostly foreign-degree holders<br><br>✔ Language of instructions is fully English<br><br>✔ Going to setting own campus is in prime location of Dhaka city within Short period of Time. | ✔ If IBA & DU increase their seats triple for MBA & BBA programs.<br><br>✔ If IBA opens opportunity for wealthy students to admit in the BBA & MBA programs.<br><br>✔ If BUET opens MBA in Operations Management, Industrial Engineering Management, Financial Management, and Marketing Management for both meritorious & wealthy students. |

**Source:** *(Rahman Sajedur, A Marketing Plan for Royal Roads University, May 15,2001, p 47)*

**East West University (EWU) --- Private University**

| Strengths | Weakness | Opportunity | Threats |
|---|---|---|---|
| ✔ Perceived moderate quality in MBA<br>✔ Extensive product line<br>✔ Moderate financial position<br>✔ Location advantage<br>✔ Purpose built campus<br>✔ Assortment of quality faculty members.<br>✔ Moderate infrastructure and learning facilities<br>✔ Moderate price | ✔ Not own permanent campus<br>✔ Moderate market share<br>✔ Graduate program taught by mostly post-graduate degree-holder faculties.<br>✔ Campus is in commercial location.<br>✔ No research facilities are available<br>✔ Under-graduate admission is less competitive.<br>✔ Small library | ✔ Sufficient product lines<br><br>✔ Sufficient product length<br><br>✔ The campus is situated at the heart of the city and can be easily accessed by all modes of public transportation. | ✔ Most of the private universities are targeting middle and upper middle income groups with lower tuition fees. |

Source: *(Rahman Sajedur, A Marketing Plan for Royal Roads University, May 15,2001, p 47)*

## Institute of Business Administration (IBA): Dhaka.

| Strength | Weakness | Opportunity | Threat |
|---|---|---|---|
| 1. A center of academic excellence for business education.<br>2 Politics and session jam free.<br>3. Semester system education.<br>4. Quality is the core factor of work.<br>5. Strength of the faculty.<br>6. Missed classes are made up regularly.<br>7. Attendance is strictly monitored.<br>8. Excellent input of students.<br>9.Well-organized infrastructure.<br>10.Rich library. | 1. Letter grading system but marks are not mentioned for each letter grade.<br><br>2 Remuneration is followed by government pay scale which is not sufficient for motivation of teachers.<br><br>3 34 percentage of teachers has terminal degree. | 1 Academic collaboration with Indiana University, Bloomington, USA.<br>2. Financial assistance under a Ford Foundation, USA. | 1. If fail to keep talented, sincere, and dedicated faculty due to low remuneration<br><br>2. If BUET open MBA program in Industrial Engineering Management, Finance, Marketing, and Operations Management. |

Source: *(Graduate Bulletin 1998-1999, MBA program, IBA, DU)*

## JACKSONVILLE STATE UNIVERSITY, ALABAMA, USA

| Strength | Weakness | Opportunity | Threat |
|---|---|---|---|
| 1. Fully State –supported university and operating more than 125 years.<br>2. Eleven-storied rich library with huge number of books.<br>3. 97 % students gets job within two years of graduation.<br>4. 75% of faculty is holding PHD. Degree.<br>5. Graduate programs are taught by 100% PHD holder faculties<br>6. Fully Touch-Tone registration system.<br>7. Maintaining TQM in education.<br>8. Only specialized teacher in a particular subject is authorized to conduct class. | 1. Four hundred level courses offer once in a year.<br>2. Tough grading system<br>3. Very few doctorate programs. | 1. Unique infrastructure, location, and weather.<br>2. Huge number of under graduate programs are available with reasonable tuition fees.<br>3. Friendliest campus in the south.<br>4. On campus part-time job opportunity is available. | 1. If cut foreign student scholarships and impose out-of-state tuition fees.<br>2. If state government cut their yearly budget. |

**Source:** *(Graduate Bulletin, 1996-1997, Jacksonville State University, Alabama, June 1996,*

*America's Best Colleges, US News & World Report, 1996, p 91)*

## Tulane University, New Orleans, USA – Private University

| Strength | Weakness | Opportunity | Threat |
|---|---|---|---|
| 1. 99 % students gets job within two years of graduation.<br>2. 98% of faculty is holding PHD. Degree.<br>3. Graduate programs are taught by 100% PHD holder faculties.<br>4. Fully Touch-Tone registration system.<br>5. Maintaining TQM in education.<br>6. Only specialized teacher in a particular subject is authorized to conduct class<br>7. Graduation rate = 73%<br>8. Student –Faculty ratio = 14:1 | 1.Tough grading system. | 1. Unique infrastructure, location, and weather.<br>2. Huge number of under graduate programs and graduate programs are available.<br>3. Industrial reputation is high.<br>4. On campus part-time job opportunity is available. | 1. If cut student scholarships and impose out-of-state tuition fees. Because 47% of all undergrad students receive aid.<br>2. If fail to control tuition fees increase each year |

Source:*(America's Best Colleges, US News & World Report, 1996, p 48 & 135)*

**Identifying the Strategies of North South University:**

Established in 1993 as the first private university in Bangladesh, NSU has established itself as the pioneer in providing higher education in multiple disciplines. It has its campus in Banani, in three independent buildings. Conforming to government regulation and also part of expansion plan, the university is relocating its campus in Bosundhara.

With more than 2600 students in various disciplines, NSU is the market leader in the BBA segment with 1400 students. It also has about 1000 students n the computer science department. It h as l aunched i ts M BA i n 1 997 a nd h as a t otal o f 1 48 s tudents e nrolled i n t he p rogram. A number of 45 students have graduated from this program. The institute enrolls only a maximum of 25-30 students each semester and about 170-180 MBA applications are processed in every semester.

**Target Marketing and Positioning Strategy:**

NSU has targeted only the upper middle and upper-upper income groups, young executives in the age group of 26-40. The MBA has been positioned on the image of NSU as the best provider of quality education in the private sector. Other factors, which has been focused of positioning are: marketability of the MBA, quality faculty staff, accreditation and collaboration with other foreign universities.

**Product Strategy:**

They have differentiated their product offering by having several product lines such as MBA, MS in Economics, and M S in computer science etc. Their product length (concentration) for MBA is Marketing, Finance, International Business. But there has been a trend in students selecting only Marketing and Finance concentration partly due to the reason that the institution has failed to appoint faculty in other concentration fields. Due to the recent focus of information technology, the institute is trying to re-introduce MIS in the near future. The institution has policy of only appointing Ph.D. degree holders from abroad, which has created a relatively small pool of faculty member.

**Pricing Strategy:**

The institution has set price for undergraduate degree programs TK.450,000 to 600,000 and for its MBA the price has been selected TK. 320,000. The pricing reflects a premium pricing strategy which takes in to consideration the image and reputation of the university and the program itself.

**Promotional Strategy:**

The institution's promotion functions are handled by the Registrar in coordination with the registration department. There is no separate staff to look after the marketing of the graduate and undergraduate program. There is a general information department, which disseminates information about all the programs of the university. The institution allots the budget for its promotional resources on the basis of objective and task. They use a very short advertisement in leading daily newspapers just to let potential students know that the admission process has begun and invite application. The promotional functions are largely in the form of advertisement in newspaper ( taking up 70% of the promotional budget), printing information handouts and public relations.

**Identifying the Strategies of Independent University of Bangladesh (IUB) :**

IUB was setup in 1991 under the Private University Act and has established itself as one of the pioneering and successful private universities in Bangladesh. It offers bachelors and masters degree courses in the fields of Business Studies, Computer Science, Environmental Study. The campus is located in Baridhara with 7 independent building, one of which is allocated to the MBA department. With more than 4000 students in various disciplines, IUB is second to NSU in terms of student size. Like NSU they have a strong BBA market with more than 1000 students. Starting in spring 1997, he university has launched the MBA in joint collaboration with Maastricht School of Management (MSM) an international business school located in Netherlands. The management was reluctant to give out information on MBA students. It was later known over telephone (posing as a potential student) that the institution has a total of 100 students enrolled in the MBA and that only 14 students have completed the MBA so far. Further intelligence revealed that very few people apply to IUB's MBA.

**Target Marketing and Positioning Strategy:**

IUB has targeted only the upper middle and upper-upper income groups, young executives in the age group of 26-40. The MBA has been positioned on the image of the joint collaboration with MSM –IUB. Other factors, which has been focused of positioning are: international marketability of the MBA, international faculty staff, short-duration of the MBA. etc.

**Product Strategy:** An institution of higher learning that offers undergraduate programmes, usually of four-year duration, that lead to the bachelor's degree in the arts, sciences, business or social s ciences ( B.A., B. Sc., B BA o r B.S.S.). A u niversity also o ffers d ifferent graduate o r masters programmes in arts, science, social science or business (M.A., M.Sc., M.S.S. and MBA) and post-graduate programmes; for example: Ph.D or doctoral degree progammes.

**Pricing Strategy:** The institution has set a price of TK. 375,000 for its MBA program and for BBA program has set a price of TK. 500,000 . The pricing reflects a premium pricing strategy which takes in to consideration the image and reputation of the university as well as the collaboration with Maastricht School of Management (MSM).

**Promotional Strategy:** The promotional functions are handled by the Registrar in co-ordination with the registration department. There is a general information department, which disseminates information about all the programs of the university. The promotional functions are largely in the form of advertisement in newspaper (taking up 60% of the promotional budget), color informative three-fold handouts (30% of promotional budget) and public relations.

**Inter-University Link Programme:** The university has establish collaboration/link relation with top universities and institutions abroad for student exchange programme, teaching, research and course curriculum development with Southern Illinois University, USA, Hamline University, St. Paul, Minnesota, USA, Pokhara University, Nepal, University of Michigan, USA etc.

## East West University (EWU):

Established in 1995 as a private university in Bangladesh, the university provides both bachelors and masters degree in multiple disciplines. It has a campus in Mohakhali, in two independent buildings. Conforming to government regulation the university has decided to locate its campus in Gazipur. The university has more than 1500 students in various disciplines. It has launched its MBA in 2000 and has a total of 100 students enrolled in the program. The institute enrolls only a maximum of 25-30 students each semester and about 120 MBA applications are processed in every semester.

**Target Marketing and Positioning Strategy**:
EWU has targeted the middle and upper middle income groups. As an institution of higher learning that promotes and inculcates ethical standards, values and norms, EWU is committed to the ideals of equal opportunity, transparency, and non-discrimination. It has accreditation and collaboration with foreign universities.

**Product Strategy**:

They have differentiated their product offering by having few product lines (BBA, MBA, etc) and a few product length (concentration streams such as Marketing, Finance, International Business).

**Pricing Strategy**:
The institution has set a price of TK.232,000 for MBA and more than TK.300,000 for BBA. The pricing reflects a premium pricing strategy which takes in to consideration the image and reputation of the university as well as a focus on how the target market can afford the price.

**Promotional Strategy**:
The institution's promotion functions are handled by the Registrar in coordination with the registration department. The promotional functions are largely in the form of advertisement in newspaper in leading newspapers (taking up 70% of the promotional budget), adverts in website (Bangla2000, 15% of promotion budget), informative handouts (15% of promotional budget) and public relations. *(A Marketing Plan for Royal Roads University, Sajedur Rahman, May 2001).*

# CHAPTER-3

## QUALITY EDUCATION STRATEGY

### 3.1 Good Curriculum

Effective curriculum should be designed based on the requirements of the industry. Most of the curriculums of the public universities are hardly related with industrial requirements at locally and overseas. Curriculum should be designed in such a way that serves the local industrial requirements as well as foreign industrial requirements. To do this, university authority can take initiative to arrange a committee, to select members from industry, multinational company, and academicians from home and abroad to design the effective course curriculum for different majors and must monitor continuously to cope with the changes in the industrial sectors thus quality improvement of curriculum would not be at behind. Moreover, faculty members may survey representatives of the major employers who hire their students.

### 3.2 Quality of Teaching and Research:

A highly competent and well-motivated teaching staff and a supportive university culture are important factors to determine the performance of private universities, though emphasis for training and research must not be undermined. Sufficient support in instructional facilities and research equipment and materials, up-to-date information through electronic networks must be provided. Upgrading libraries is a priority. Library facilities must include well-stocked information materials, adequate study space which will meet the teaching and research needs of the academic community. The ability to evaluate and monitor the quality of teaching will help in determining the universities' academic performance. Evaluating teacher's performance can be done by using a method of reliance on students' rating, evaluation by departmental heads and peers. Procedure and criteria of which must be transparent and the outcome can be used to take corrective actions. With a view to ensure and promote quality of teaching and learning environment, the American International University- Bangladesh has a human resource policy which is especially designed to screen in efficient, effective and highly motivated teachers. Institutional supports and incentives are provided throughout the teaching tenure of individual teachers to generate motivation, up-gradation and self-assessment for continuous personal development. AIUB has one of the most updated electronic information support cell with internet

and e-mail access to faculty members. The upcoming 'virtual university' system will enable the teachers to have simplified process of maintaining student data- bases. The spacious library has preferential seating arrangement for faculty members. A well-structured incentive package is offered to faculty members. That includes flexible working hours (apart from scheduled classes), two research journals for academic publications, seminar and conference facilities, administrative support office for career and professional development, provision of study leave and continuous performance based salary increments and promotions scheme. Teacher's performances are monitored and evaluated every semester by an automated system of "Teacher's Behavioral Inventory' that enables students to rate their teachers in their course. The administrative procedures and norms are clearly specified in the operations manual for teachers ensuring transparency and greater mutual accountability (*Lamagna Z. Carmen, Strategic View of the Development of Higher Education, American International University-Bangladesh Perspective, pp642 –643,Bangladesh Business Year Book, First Edition, Oct,2002)*

### 3.3 Library Facilities:

Carbohydrate is the source of energy and library is the source of knowledge. Therefore, rich library is the indication of power of the university and it works as cantonment of students towards higher education continuously. Modern library has printing and electric media facilities and also it has access to borrow and return facilities with in a stipulated time which gives students unique opportunity to gather versatile knowledge and information quickly and comfortably. Other indications of rich library are number of book, periodicals, journals, research papers etc. and computerized strong linkages with other universities of the particular state.

### 3.4  Responsive to the Demands of the Labor Market:

In the view of economic growth, strategies based on technological innovations, private universities must be guided by the business and industrial sectors. Linkages and communication between the institution and other sectors of the industry must be strong. These can be achieved by business-sponsored internships for students and part-time academic appointment from the business sector. Effective institutions must be open to international exchanges. Efforts must be made to ensure that the enrolment patterns and curricula reflect the local skill requirement. In many instances, to guide the choice of course offerings and to make decisions on the curriculum

changes, private universities must monitor the labour market out comes of their graduates, including placement and remuneration, as well as the supply and demand of various skills.

The inherent structure of course and overall curriculum of AIUB's programmes ensure its training complementarities with emerging technologies and human resource demands of existing industries, business conglomerates and the government. AIUB's graduates, as is found in evidence, have proved to be highly responsive to the needs of recruiting authorities of such kind. To strengthen the linkage between the corporate, financial and industrial sectors, AIUB regularly hosts seminars, conferences, job fairs and other placement promotion activities in collaboration with these agents of economy. The AIUB Placement and Alumni Office work for the students and graduates, for employment or business internships, as the case may be, and give effective career and placement advice. The Office of Students Affairs and Planning and Development arrange seminars and presentations with

invited guests from foreign universities for exploring international and scholarly exchange possibilities of AIUB students and faculty members. Through this effort, AIUB stands prepared to respond efficiently and flexibly to the fast changing demands of market and technology (*Lamagna Z. Carmen, Strategic View of the Development of Higher Education, American International University-Bangladesh Perspective, pp644,Bangladesh Business Year Book, First Edition, Oct,2002*).

## 3.5 Equity:

Achieving greater equity of participation in higher education is an aspect not only for economic growth but as well as for social justice and equity. Admission policies must allow students from the low-income families, but this should not adversely affect the quality, if the overall selectivity is high and if financial assistance is available. The academic standards in the SSC and HSC level have an effect in the performance of the higher education system. While, there is an increase in the growth of the student population in private universities for the traditionally less-privileged students, private university education, generally remains elitist, with the majority of the students coming from the more affluent families. Equity of education, in terms of social and financial status has been a concern of AIUB from its inception. The issue has been addressed in AIUB's long term and perspective planning documents. Social equity in this context is less relevant,

largely due to the reason of bearing huge and unsubsidized overhead costs of establishing and operating a private university. For universities of AIUB's capacity, the operational costs are of major concern, with the major source of financing coming from the revenues generated from the students' fees. However, the social marginal cost per student of public universities is still higher than that of private universities, in general. In order to keep equity as an agenda in its development process, AIUB offers special incentives and waivers to financially incapable but talented and promising students based on their performance in government-run certification examinations. This is also extended to students who actively and successfully engaged in extra curricular (academic and non-academic) activities such as sports, performing arts, debate and computer programming. A special committee is continuously reviewing the tariff structure in view of enhancement of social equity and harmony (*Lamagna Z. Carmen, Strategic View of the Development of Higher Education, American International University-Bangladesh Perspective, pp644 –645,Bangladesh Business Year Book, First Edition, Oct,2002).*

### 3.6 Co-curricular Activities:

Co-curricular activities have come to be recognized as an integral component of a modern education system. In the light of this, University of South Asia, intends to provide facilities for such activities. These activities will help to develop well-groomed, responsible and self-disciplined individuals. Most of the public universities undertake programs with active involvement of students to sharpen intellectual qualities through inter-university debates, cultural activities a nd o ther c reative p ursuits. B ut i n t his r espect p rivate u niversities a re f ar b ehind o r found them not very active participants. They should come forward for active and vibrant involvement to boost-up students' participation. It could be indoor and outdoor games, and any sorts of sports activities. Such informal interaction between students and faculty will be conducted towards the growth of balanced personality.

### 3.7 Foreign Academic Collaboration:

With increasing globalization of education at the university levels, there is a strong compulsion to promote interaction, especially with institutions of higher education in the western countries. Such interaction provides access to ever changing scenarios of modern education system and the most up to date innovative development in teaching-learning methodology. Recognize this

imperative, UniSA has already initiated a number of collaborative programs with universities in the USA, UK, Australia and Canada.

## 3.8 Credit Hour System:

The procedures of credit hour system, which need to be practiced in the higher education. Courses may have different credit hours; but, for theoretical courses, one lecture per week per semester is equivalent to one credit. Credits for laboratory courses are half of the class hours per week per semester. Credits are also assigned to internee, project and thesis work. This is the current practice of University of South Asia. The 'Credit Hour Semester' has flexibility for you with a view to proceeding as per their competency and eagerness as well as interest. It is not obligatory to take two semesters in an academic year. You have the option to take another one short semester (summer semester) in an academic year. Under the coverage of this system, student have to complete the total number of credit hours a program for all subjects. But students are not bound to complete the total credit hours within the scheduled semester, as there are flexibility for students. The number of credit hours you want to take in a semester or in different semesters will depend on your capability and choice of following some rules and regulations of the University.

## 3.9 Awards:

The Faculty of Business Teaching Awards was established to recognize and promote quality teaching throughout the Faculty at Queensland University of Technology.

## 3.9.1 Two Annual Awards for excellence in Teaching (Undergraduate & Postgraduate):

These awards are made to academic staff in the Faculty of Business who have consistently demonstrated excellence in teaching. The nomination for this award would include reference to accomplishments as a teacher. This could include formal evaluations by students, peer reports, testimonials, research in teaching and dissemination of this, participation in seminars to improve teaching, invitations to teach at other institutions, mentoring other staff in teaching, and any other form of recognition (internally or externally) of teaching quality.

**3.9.2 Two Annual Awards for Innovation in Teaching** (Undergraduate & Postgraduate):

These awards are made to academic staff in the Faculty of Business who have demonstrated significant innovation in teaching. This may be in delivery, in assessment, or in content development. Evidence could include reports from students, fellow staff, in publication, in grants, in seminar presentation, and from other internal or external sources where the staff member has been recognized for an innovative teaching contribution.

**3.9.3 Certificates of Excellence:**

Each year noteworthy accomplishments by Faculty academic staff in the area of teaching and learning will be acknowledged with Certificates of Excellence. These certificates will be in addition to the aforementioned awards.

**3.9.4 Process:**

- Applications are called for in September of each year from School Teaching Learning Committees. The School Teaching Learning Committee is expected to present a three-page statement of support for nominees.
- A committee comprising the Dean, Chair of Faculty Education Committee, one Head of School, one Director of Studies and selects the four successful candidates for awards.
- Awards are announced in November of each year and consist of an honorarium from the Faculty Education Committee to be spent on professional related (books, conference attendance, research assistant) activities.
- Awards winners are not eligible for nomination for a further three years.
- Awards and Certificates winners will be acknowledged in the media
  **(http://www.bus.qut.edu.au/research/teaching/awards.jsp)**

**3.10. Industrial Attachment**

The purpose of the project paper is to provide the student with an opportunity to practically utilize, in a real world setting, an amalgam of subject matter from any discipline. Each student choosing this option will undertake an independent study and report the findings in a paper. This grade will be based upon the quality of the written report, after consideration of any clarifications provided by the student in an oral discussion of the paper. The oral discussion is a mandatory for

each student and the faculty advisor must initiate it. This exercise often helps students to get job where he/she was involved for doing the project. Few private universities are practicing this assignment for their students to enrich their practical knowledge.

### 3.11. Campus Environment:

Unhealthy atmosphere creates negative impact on higher education which continuously de-motivates students towards quality learning. Thus, university authority should not establish their university in a commercial settings and UGC must not give them permission for setting a university in a commercial building. Usually, UGC gives permission for five years for operating private university in a rental building at a commercial or at residential area. This permission helps to create unhealthy atmosphere because no specific guidelines has mentioned by the UGC to create healthy atmosphere. Some guidelines could be clean campus, wide-enough class-rooms, wide-elevator, adequate light or natural light, wide entrance for library and computer lab, hygienic food court with quality food, indoor recreational facilities, etc. UGC should mention minimum numerical measurement for each factor above mentioned and should assess strictly before giving permission for operating a private university.

### 3.12. University Ranking:

University ranking system is unique system in which we can identify the strengths and its weakness through the evaluation. Because in this system various factors has been taken into consideration. Thus, overall measurement becomes a standard and customers of the university become more aware about their choice for enrollment. Recently, UGC has started the ranking system among the private university. They have considered few factors for ranking system such as number of full-time teachers, infrastructure, curriculum, examination system, grading system, library, and laboratory facilities. *(UGC Chairman tells on performance of private institutions after probe, The Daily Star, Oct 19, 04, page 1&1).* Here, few more important factors should be considered for university ranking system. These are as follow:

- Percentage of PhD. Holder faculty
- Student-Faculty Ratio
- Freshman retention rate
- Graduation rate within five-year of education period

- Acceptance rate. Higher the rate, lower the image.

- Publications from all departments

- Student Satisfaction Survey Score.

- Percentage of student getting job within two years of graduation.

- Research facilities

- Availability of Ph.D program and number of Ph.D programs

# CHAPTER 4

## TEACHING & LEARNING METHODS

**4.1. Classroom Lectures:**

Lectures d esigned t o c ommunicate s pecific i nterpersonal, t echnical, o r p roblem-solving s kills. Interpersonal skills including ability to be an effective member of groups, sensitivity to group norms and customs, skill in conflict resolution, and appreciation of cultural diversity. Problem – solving skills including the ability and disposition to think logically on the basis of useful assumptions; to distinguish the subjective from the positive and factual; to weigh evidence and evaluate facts and ideas critically; to think independently; and to analyze and synthesize (*Graduate Bulletin 1997, P 9, JSU, USA*).

**4.2. Simulation Exercise:**

Training that occurs by actually performing the work. This may include case analysis, experimental exercise, role playing, or group decision making (*Human Resource Management, Fifth Edition, De Cenzo/Robbins*). Case studies can provide stimulating discussions among participants, as well as excellent opportunities for individuals to defend their analytical and judgmental abilities. It appears to be rather effective method for improving decision making abilities within the constraints of limited information.

Role-playing allows the participants to act out problems and to deal with real people. Participants are roles and are asked to react to one another as they would have to do in their management jobs. The advantages to simulation exercise are the opportunities to attempt to "create an environment" similar to real situations the managers incur, without the high costs involved should the actions undesirable.

Teacher should arrange some sort of simulation exercise for every course, which he/she is willing to teach.

### 4.3. Homework & Quiz:

Homework is the practicing techniques, which increase students' thinking capability and guide students to solve problems. Quiz is the some degree of measurement, which tell how students understand the topic and also help to retain the students in the class- room. This is the quick snap short of conception. Both the techniques have significant impact on higher education. Almost all North American Universities prefer to give homework and quiz to undergraduate and graduate students in any courses they take. Now, this is the common phenomenon for private universities of Bangladesh because most of them are following American curriculum to maintain quality education.

### 4.4. Visual aid:

Good visuals are essential for effective teaching and the proper development
and use of visual aids are important to successful teaching. A visual aid is anything the audience can see that helps the speaker get his or her message across to the audience.

UniSA are encouraging all faculties to use visual aids because:

- The audience's attention is focused more completely

- Visual aids make students more persuasive. The receiver retains the message better.

For example, research has found that message retention after three days is only 10% following an oral presentation, but is 65% following an oral & visual presentation.

-Visuals help teacher to be concise. Instructors are forced to distill their ideas down to
their essence when using visuals. Visuals force instructors to order and sequence the ideas they will present. ( *Using Visual Aids in Extension Teaching, Jimy G. Chech and Carl E. Beeman, University Of Florida*}

### 4.5. Model Test:

It familiarizes students about actual test thus students get confidence and get inspiration to study hard for better performance. It is the perception of win-win situation. Regarding model test, I collected two types of data from BBA and MBA students in Business Mathematics and Mathematics for Decisions Making of University of South Asia, Banani to justify whether any significant difference is there or not. T-distribution has been used to find the justification regarding model test.

Program = BBA, Subject = Business Mathematics

Semester = Fall, 2003, University of South Asia

| Roll Number | Test # 1 Score (Model test was not given before test#1) | Test #2 Score (Model test was given before test#2) | Difference (Di) $(X_{1i} - X_{2i})$ |
|---|---|---|---|
| B0309001 | 60 | 93 | - 33 |
| B0309002 | 87 | 92 | - 05 |
| B0309003 | 57 | 100 | - 43 |
| B0309004 | 67 | 90 | - 23 |
| B0309005 | 78 | 97 | - 19 |
| B0309006 | 88 | 94 | - 06 |
| B0309007 | 42 | 96 | - 54 |
| B0309010 | 59 | 76 | - 17 |

Data Source: University of South Asia, Banani

**Calculation & Formula** ( Basic Business Statistics, Mark L. Berenson & David M. Levine,

Sixth edition, p 505 – 506)

$\sum Di$ = summation of each difference score = - 200

$\sum D^2i$ = summation of the squares of each difference score = 40,000

$D^-$ (Average difference) = $\sum Di /n$ = - 200/8 = - 25

$nD^2$ = sample size times the square of the sample mean difference = 8 X(-25)$^2$ = 5000

$\alpha$ = level of significance = .05

The **t-test** statistics = t = $(D^- - \mu_D)$ % S$_D$ / $\sqrt{n}$

$S^2{}_D$ = $\sum D^2i - nD^{-2}$ /n -1

$S^2{}_D$ = 40,000 – 5000 / 8 – 1 = 35,000 /7 = 5000 , Now, $S_D$ = $\sqrt{5000}$ = 70.71

Since the instructor wishes to determine whether the average score will be less with the TEST-1 than the TEST-2, we have a one tailed test in which the null and alternative hypothesis can be stated as follows.

$H_0: \mu_D \geq 0$  or  $\mu_{test-1} \geq \mu_{test-2}$

$H_1: \mu_D < 0$  or  $\mu_{test-1} < \mu_{test-2}$

**Significance Level**: The level of significance 0.05 has been selected.


**Rejection Criteria**:

Reject $H_0$ if $t < -t_{n-1}$, otherwise do not reject.

Now, $-t_{n-1} = -t_7 = -1.895$


<u>t-test</u>: The t-test statistic can be computed, $t = \bar{D} - \mu_D / S_D/\sqrt{n}$

$$t = -25 - 0 \div 70.71/\sqrt{8} = -1.0008$$

Since, $t = -1.0008$ and $t_7 = -1.895$, that means $t > t_7$, Reject $H_0$

Therefore, we can conclude that there is evidence that the average score of TEST-1 is lower than Test –2 (model

test).

Program = MBA, Subject = Mathematics for Decisions Making, K 501

Semester = Fall, 2003, University of South Asia

| Roll Number | Test # 1 Score<br>( Model test was not given before test#1) | Test #2 Score<br>(Model test was given before test #2 ) |
|---|---|---|
| M0903003 | 86 | 88 |
| M0903006 | 74 | 90 |
| M0903009 | 51 | 66 |
| M0903011 | 57 | 88 |
| M0903015 | 60 | 89 |
| M0903019 | 24 | 63 |
| M0903020 | 47 | 91 |
| M0903022 | 38 | 78 |
| M0903024 | 83 | 78 |

Data Source: University of South Asia, Banani , Business Administration Department.

**Calculation & Formula** ( Basic Business Statistics, Mark L. Berenson & David M. Levine,

Sixth edition, p 505 – 506)

$\sum D_i$ = summation of each difference score = -222

$\sum D^2_i$ = summation of the squares of each difference score = 49,284

$\bar{D}$ (Average difference) = $\sum D_i /n$ = - 222/9 = - 24.67

$n\bar{D}^2$ = sample size times the square of the sample mean difference = $9 \times (-24.67)^2$ = 5477.48

$\alpha$ = level of significance = .05

The t-test statistics = $t = (\bar{D} - \mu_D) \% S_D / \sqrt{n}$

$S_D^2 = \sum D^2_i - n\bar{D}^2 / n - 1$

$S_D^2$ = 49,284 – 5477.48 / 9 – 1 = 43806.52 /8 = 5475.81 , Now, $S_D = \sqrt{5475.81}$ = 73.99 = 74

Since the instructor wishes to determine whether the average score will be less with the TEST-1 than the TEST-2, we have a one tailed test in which the null and alternative hypothesis can be stated as follows.

$H_0$ : $\mu_D \geq 0$ or $\mu_{test-1} \geq \mu_{test-2}$

$H_1$ : $\mu_D < 0$ or $\mu_{test-1} < \mu_{test-2}$

**Significance Level**: The level of significance 0.05 has been selected.

**Rejection Criteria**:

Reject H₀ if $t < - t_{n-1}$, otherwise do not reject.

Now, $- t_{n-1} = - t_8 = - 1.860$ ( *From appendix A-4, Douglas C. Montgomery, Statistical Quality Control, Second Edition)*

**t-test**: The t-test statistic can be computed , $t = \bar{D} - \mu_D / S_D/\sqrt{n}$

$$t = - 24.67 – 0 \div 74/\sqrt{9} = - 1$$

Since, t = - 1 and $t_8$ = - 1.860, that means t > $t_8$, Reject H₀

Therefore, we can conclude that there is evidence that the average score of **TEST-1** is lower than **Test -2** (model test).

Ideal Situations for Model Test:

- When students are not familiar with teacher and his style of questioning at all
- When class average of previous test score is very poor due to very tough questions

Deficiency of Model Test:

- Students focus on model test instead of all test-syllabus
- Lack of learning tendency etc.

## 6. Videos and Films:

Using various media productions to demonstrate specialized skills that are not easily presented by other teaching method. It is not applicable for every course but if the material is available for a specific course, instructors are encouraged to use it.

## 4.6. Study Tour:

It means study with fun and seeing the actual scenario that helps to grab the main idea of learning. It stimulates students instantly towards learning because it does not confined with specific topic and provides instants feed back. Its boundless boundary and lot of sources to gather information instantly and get involved with different people around the tour-zone for communicating various questions and answers. Previously, we observed that most of the study tour was engaged with historical places. Now a days, in addition to historical places, it adds manufacturing plants tour such as Boeing Manufacturing Plant in USA and also service provider industry facilities s uch a s h ub sy stem, d istribution sy stems o f F edEx a t D ubai a nd M emphis, USA. Private Universities of Bangladesh should concentrate more on this matter to enhance learning ability of students and it is the least costing arrangement for real-world learning. In Bangladesh, many multinational industry are operating thus there is a huge opportunity for study tour both the private and public university students. Study tour enhances the vision and opens the eyes of students for learning.

### 4.7. Evaluation of students:

**4.7.1 Evaluation by Teacher:** Grade point average, specific course grade etc.

**4.7.2 Validity Test:** Validity is the proven relationship of a selection device to some criterion. To find out the validity between CGPA & Existing Assessment Scores for students those who have completed all degree-requirements at UniSA. The correlation of coefficient (r) measures how strong the relationship is between CGPA & Existing Assessment Score of graduation students. The correlation analysis procedure can result in a coefficient ranging from $-1$ to $+1$ in magnitude. The closer the validity coefficient is to the extreme $(+1)$, the more accurate the test (*HRM, Fifth Edition, De cenzo/Robbins, page 180 & 184*). Example can be set like this:

| NUMBER OF STUDENT | CGPA | EXISTING ASSESSMENT SCORE |
|---|---|---|
| 1 | 2.95 | 65 out of 100 |
| 2 | 2.97 | 64 |
| 3 | 3.00 | 66 |
| 4 | 3.33 | 71 |
| 5 | 3.10 | 70 |
| 6 | 3.15 | 68 |
| 7 | 3.35 | 70 |
| 8 | 3.25 | 63 |
| 9 | 3.11 | 58 |
| 10 | 3.27 | 73 |

The formula for correlation coefficient is:

$r = N \sum XY - (\sum X)(\sum Y) / \sqrt{(N \sum X2 - (\sum X)2 (N \sum Y2 - (\sum Y)2)} = 0.48$ means that there is no strong correlation between CGPA & Existing Assessment Scores.

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.487017541 |
| R Square | 0.237186085 |
| Adjusted R Square | 0.141834345 |
| Standard Error | 4.161234898 |
| Observations | 10 |

ANOVA

| | Df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 43.07299301 | 43.07299 | 2.487486 | 0.153406088 |
| Residual | 8 | 138.527007 | 17.31588 | | |
| Total | 9 | 181.6 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0 |
|---|---|---|---|---|---|---|---|
| Intercept | 19 28680364 | 30.15420443 | 0 639606 | 0.540308 | -50.2489614 | 88.82257 | -50.2489( |
| X Variable 1 | 15.10273247 | 9.575803733 | 1 577176 | 0.153406 | -6.97912481 | 37.18459 | -6.97912· |
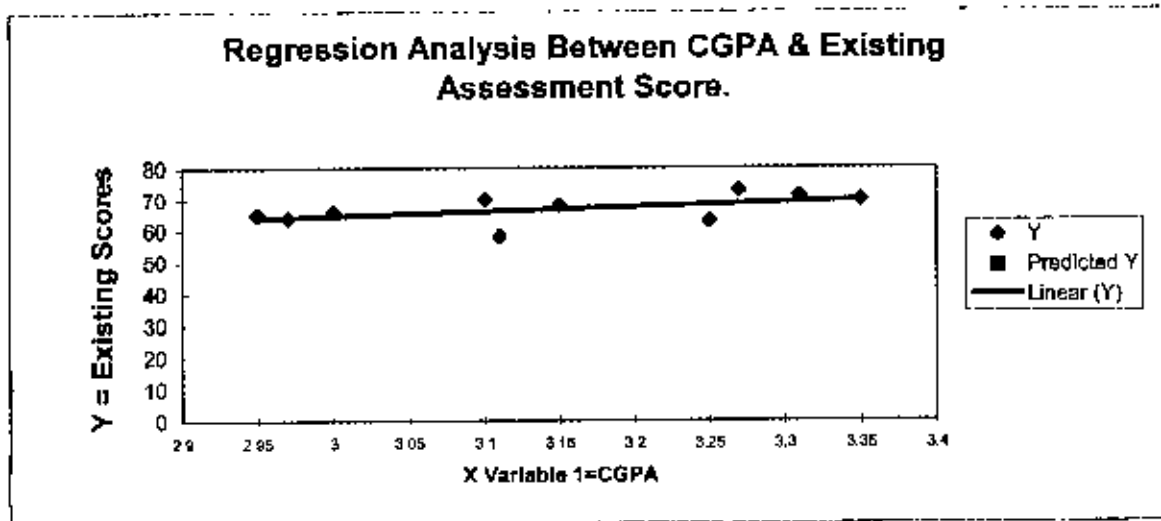


Figure #3: The graph is depicting the relationship between CGPA & Existing Scores.

**Existing Assessment**: It would be comprise of quantitative skills, communications skills, and area of concentration (such as BBA in Marketing, Finance etc) skills. This assessment would be done last semester of graduation. The purpose of this assessment is to identify the validity of CGPA.

### 4.8. Teacher's evaluation:

The following descriptions are guidelines only when completing student teaching evaluation. Mastery of these skills is not essential, however indicated growth is important. University of South Asia, Banani is following the below listed criteria for evaluating teachers each semester. See the format in the appendix.

Preparation, Planning and Organization:

- Demonstrates knowledge of subject matter and procedure for using program of studies
- Sets suitable objectives
- Develops quality plans for lessons etc.

Teaching Skills & Strategies:

- Motivates, introduces, presents, paces, closes and evaluates lessons
- Involves students activity
- Gives clear instructions
- Demonstrates skill in questioning
- Manages discussions etc.

Communication:

- Demonstrates a command of oral & written language and skill in use of non-verbal communication
- Uses voice expressively
- Writes legibly
- Listens and responds to student signals

Management:

- Makes effective use of time and space
- Provides clear direction
- Deals with behavioral problems with minimum disruption
- Assists students to become self-directive
- Helps students to develop and maintain rules
- Deals with disruptions appropriately and professionally etc.

Classroom Climate:

- Shows rapport and empathy
- Demonstrates an awareness of individual needs
- Generates student interest and enthusiasm for learning

- Provides an atmosphere conducive to learning

Professional Qualities and Initiative:
- Sense of responsibility
- Professional in attitude and in appearance
- Demonstrates resourcefulness, warmth, and self-confidence

( www.uofaweb.ualberta.ca/fieldexperiences/navoz.cfm?navoz)

# CHAPTER 5:

## QUALITY FUNCTION DEPLOYMENT (QFD)

QFD can be applied to practically any manufacturing or service industry. It has become a standard practice by most leading organizations, who also require it of their suppliers. Quality function deployment is a planning tool used to fulfill customer expectations. It is a disciplined approach to product design, engineering, and production and provides in-depth evaluation of a product. An organization that correctly implements QFD can improve engineering knowledge, productivity, and quality and reduce costs, product development time, and engineering changes. Quality function deployment focuses on customer expectations or requirements, often referred to as the voice of the customer. It is employed to translate customer expectations, in terms of specific requirements, into directions and actions, in terms of engineering characteristics, that can be deployed through process planning, production planning, and service. Quality function deployment is a team-based management tool in which customer expectations are used to drive the product development process. Conflicting characteristics or requirements are identified early in the QFD process and can be resolved before production. Organizations today use market research to decide what to produce to satisfy customer requirements. Some customer requirements adversely affect others, and customers often cannot explain their expectations. Confusion and misinterpretation are also a problem while a product moves from marketing to design to engineering to manufacturing. This activity is where the voice of the customer becomes lost and the voice of the organization adversely enters the product design. Instead of working on what the customer expects, work is concerned on fixing what the customer does not want. In other words, it is not productive to improve something the customer did not want initially. By implementing QFD, an organization is guaranteed to implement the voice of the customer in the final product. It is considered by many expects to be a perfect blueprint for quality by design. Quality function deployment enables the design phase to concentrate on the customer requirements, thereby spending less time on redesign and modifications. The saved time has been estimated at one-third to one-half of the time taken for redesign and modification using traditional means. This saving means reduced development cost and also additional income because the product enters the market sooner ( *Total Quality Management, D.H. Besterfield, 2nd Edition.*)

## 5.1 Benefits of QFD:

Customer Driven: Creates focus on customer requirements, use competitive information effectively, prioritizes resources, identifies items that can be acted upon, and structures resident experience/information.

Reduce Implementation Time: Decreases midstream design changes, limits post introduction problems, avoids future development redundancies, identifies future application opportunities, and surfaces missing assumptions.

Promote Teamwork: Based on consensus, creates communication at interfaces, identifies actions at interfaces, and creates global view out of details.

Provides Documentation: Documents rationale for design, easy to assimilate, adds structure to the information, adapts to changes, and provides frameworks for sensitivity analysis.

## 5.2 House of Quality:

The primary tool used in QFD is the house of quality. The house of quality translates the voice of the customer into design requirements that meet specific target values and matches those against how an organization will meet those requirements. The parts of the house of quality are described as follows:

- The exterior wall of the house are the customer requirements.
- On the left side is a listing of the voice of the customer, or what the customer expects in the product.
- On the right side are the prioritized customer requirements or planning matrix.
- The ceiling or second floor, of the house contains the technical descriptors.
- The interior walls of the house are the relationships between customer requirements and technical descriptors.
- The roof of the house is the interrelationship between technical descriptors.
- The foundation of the house is the prioritized technical descriptors. Items such as the technical benchmarking, degree of technical difficulty, and target value are listed.

## 5.3 Building a House of Quality:

Step #1: List Customer Requirements (WHATs)

Step #2: List Technical Descriptions (HOWs)

Step #3: Develop a Relationship Matrix Between WHATs & HOWs

Step #4: Develop an Interrelationship Matrix Between HOWs.

Step #5: Competitive Assessments

Step #6: Develop Prioritized Customer Requirements.

Step #7: Develop Prioritized Technical Descriptors.


## 5.4 QFD Implementation through House of Quality:

Step #1: List Customer Requirements (WHATs)

Quality function deployment starts with a list of goals/objectives. This list is often referred as the WHATs that a customer needs or expects in a particular product. A primary customer requirement may encompass numerous secondary customer requirements. Although the items on the list of secondary customer requirements represent greater detail than those on the list of primary customer requirements, they are often not directly actionable by the engineering staff and require yet further definition. Academic department of private university customers' requirements are primary and secondary. The primary requirements are aesthetics and performance related. The average score of each factor has been decided from survey on the three private universities such as **University of South Asia (UniSA), North South University(NSU), and Independent University(IUB)**. See the survey questionnaire in the appendix section. Total sample n = 63 has been selected for survey.

| AESTHETICS: | Average Score based on 1 – 5 Scale | | |
|---|---|---|---|
| | IUB | NSU | UniSA |
| • Reasonable Cost | 2 | 2 | 3 |
| • International Standard Curriculum | 3 | 4 | 3 |
| • Student-faculty Interaction | 3 | 4 | 4 |
| • Foreign Degree Holders Full-time Faculty | 3 | 4 | 2 |
| • Undergraduate Admission Standard | 3 | 4 | 2 |
| PERFORMANCE: | | | |
| • Probability of Getting Job within Two Tears of Graduation. | 3 | 3 | 3 |
| • Communications Skills of Students | 3 | 4 | 3 |
| • Industrial Reputation on Job Performance | 3 | 4 | 2 |

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Step#2: List Technical Descriptions (HOWs):

The QFD team must come up with engineering characteristics or technical descriptors (HOWs) that will affect one or more of the customer requirements. These technical descriptors make up the ceiling, or second floor of the house of quality. Each characteristic must directly affect a customer perception and be expressed in measurable terms. These technical descriptors have been divided in to primary and secondary characteristics. The technical staffs are responsible for determining the technical descriptors.

Step #3: Develop a Relationship Matrix Between WHATs and HOWs.

Building a house of quality is to compare the customer requirements and technical descriptors determine their respective relationships. Tracing the relationships between the customer requirements and technical descriptors can become very confusing, because each customer requirement may affect more than one technical descriptor, and vice versa. It is common to use symbols to represent the degree of relationship between the customer requirements and technical descriptors. For example,

- A solid circle represents a strong relationship = 9 points
- A single circle represents a medium relationship = 3 points
- A triangle represents a weak relationship = 1 point
- The box is left blank if no relationship exists.

After the relationship matrix has been completed, it is evaluated for empty rows or columns. An empty row indicates that a customer requirement is not being addressed by any of the technical descriptors.

Step #4: Develop an Interrelationship Matrix Between HOWs

The roof of the house of quality, called the correlation matrix, is used to identify any interrelationship between each of the technical descriptors. The correlation matrix is a triangular

table attached to the technical descriptors. Symbols are used to describe the strength of the interrelationships: for example,

- A solid circle represents a strong positive relationship
- A circle represents a positive relationship
- An X represents a negative relationship
- An asterisk represents a strong negative relationship

Step #5: Competitive Assessments

The competitive assessment tables separated into two categories, customer assessment and technical assessment. The number 1 through 5 are listed in the competitive evaluation column to indicate a rating of 1 for worst and 5 for best. The customer competitive assessment contains an appraisal of where an organization stands relative to its major competitors in terms of each customer requirement. For technical competitive assessment, the test data are converted to the numbers 1 through 5, which are listed in the competitive evaluation row to indicate a rating, 1 for worst and 5 for best. The technical competitive assessment is often useful in uncovering gaps in engineering judgement.

Step #6: Develop Prioritized Customer Requirements

These prioritized customer requirements contain column for importance to customer, target value, scale-up factor, sales points, and an absolute weight. The QFD team ranks each customer requirement by assigning it a rating. Number 1 through 10 are listed in the importance to customer column to indicate a rating of 1 for least important and 10 for very important. In other words, the more important the customer requirement, the higher the rating. The target value column is where the QFD team decides whether they want to keep their product unchanged, improved the product, or make the product better than the competition.

The scale-up factor is the ratio of the target value to the product rating given in the customer competitive assessment. The higher the number, the more effort is needed. Scale-up factor = the target value % our product value.

The sales point tells the QFD team how well a customer requirement will sell. The objective here is to promote the best customer requirement and any remaining customer requirements that will help in the sale of the product. For example, the sales point is a value between 1 and 2, with 2 being the highest. Finally, the absolute weight is calculated by multiplying the importance to customer, scale-up factor and sales point.

Interrelationship between technical
descriptors correlation matrix
HOWs vs HOWs

| | | |
|---|---|---|
| +9 | ● | Strong positive |
| +3 | ○ | Positive |
| −3 | X | Negative |
| −9 | ✳ | Strong negative |

Technical descriptors (HOWs)

Relationship between
customer requirements and
technical descriptors
WHATs vs HOWs

| | | |
|---|---|---|
| +9 | ● | Strong |
| +3 | ○ | Medium |
| +1 | △ | Weak |

Technical descriptors (HOWs):
- Hire foreign degree faculty
- Standard admission test
- Student faculty ratio 1-20
- Selection procedure
- Admission test procedure
- Curriculum design & improvement
- Job placement
- English language club

| Customer requirements (WHATs) | Hire foreign degree faculty | Standard admission test | Student faculty ratio 1-20 | Selection procedure | Admission test procedure | Curriculum design & improvement | Job placement | English language club | Our product | A's product | B's product | Importance to customer | Target value | Scale-up factor | Sales point | Absolute weight and percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aesthetics** — Reasonable cost | △ | | ○ | △ | | | | | 3 | 2 | 2 | 8 | 3 | 1 | 1.5 | 2 |
| Int Standard Curriculum | ○ | | | △ | | ● | | | 3 | 4 | 3 | 7 | 3 | 1 | 1.5 | 11 |
| Student faculty interaction | △ | | ● | △ | | | | | 4 | 4 | 3 | 6 | 4 | 1 | 1 | 6 |
| **Performance** — Foreign degree F/T faculty | ● | | | ● | | ○ | △ | ○ | 2 | 4 | 3 | 7 | 3 | 1.5 | 2 | 21 |
| Admission Standard | | ● | | | ● | | | | 2 | 4 | 3 | 5 | 3 | 1.5 | 1.5 | 11 |
| Probability of getting job | | ○ | △ | | ○ | ● | ● | ● | 3 | 3 | 3 | 8 | 3 | 1 | 2 | 16 |
| Communications skills | △ | ○ | | | ○ | ○ | | | 3 | 4 | 3 | 7 | 4 | 1.3 | 2 | 18 |
| Industrial reputation | | ○ | | | △ | ● | △ | ● | 2 | 4 | 3 | 6 | 4 | 2 | 1.5 | 18 |

| Technical competitive assessment | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Our product | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | | | | | | | | |
| A's product | 4 | 3 | 3 | 4 | 4 | 4 | 0 | 3 | | | | | | | | |
| B's product | 3 | 2 | 4 | 4 | 2 | 4 | 0 | 2 | | | | | | | | |
| Degree of technical difficulty | 3 | 1 | 2 | 2 | 1 | 1 | 7 | 2 | | | | | | | | |
| Target value | 4 | 3 | 4 | 4 | 4 | 4 | 0 | 3 | | | | | | | | |
| Absolute weight and percent | 119 | 108 | 107 | 110 | 108 | 234 | 85 | 215 | | | | | | | | |
| Relative weight and percent | 294 | 265 | 160 | 252 | 256 | 522 | 183 | 564 | | | | | | | | |

Prioritized Technical Descriptors

Figure 4 Basic House of Quality Matrix

Note : Our product = UniSA
A's Product = NSU
B's Product = IUB

Step#7: Develop Prioritized Technical Descriptors

These prioritized technical descriptors contain degree of difficulty, target value, absolute and relative weight. The degree of difficulty, when used helps to evaluate the ability to implement certain quality improvements. Target value measures that defines values that must be obtained to achieve the technical descriptor. The target value for each technical descriptor is determine in the same way that the target value was determined for each customer requirement.

The absolute weight for each technical descriptor is determine by taking the dot product of the column in the relationship matrix and the column for importance to customer.

The relative weight for each technical descriptor is determined by taking the dot product of the column in the relationship matrix and the column for absolute weight n the prioritized customer requirements. Higher absolute and relative ratings identify areas where technical efforts need to be concentrated.

*(Total Quality Management, D.H. Besterfield, 2nd Edition.)*

## 5.5. QFD Process For University:

- Product Planning Phase: For each of the customer requirements, a set of design requirements is determined, which, if satisfied, will result in achieving customer requirements.

- Process Planning: Where process operations are determined from product quality characteristics.

Phase #1: Product Planning Begins With Customer Requirements.

Design requirement must be compliance with customer requirement as much as possible. Design requirements are listed below.

- the product (program) should function properly
- it should possess desired degree of accuracy
- product (program) should be easy to operate
- product (program) should be of reasonable price to compete other products in the consumer market.
- a well design product (program) will consist of minimum number of human resources and operations etc.

Phase #2: Process Planning

This phase deals with manufacturing/servicing process such as routing, clearing & forwarding, training, dispatching etc. For university it could be admission procedure, evaluation procedures, registration procedure etc.

QFD is an effective management tool for continuous improvement in which customer expectations are selected to drive the design process. QFD forces the entire organization to constantly be aware of the customer requirements. Every chart is a result of the original customer requirements that are not lost through misinterpretation or lack o f c ommunication. M arketing benefits because specific sales points that have been identified by the customer can be stressed. To create satisfied customers is the main objective of QFD. Thus, private university should use QFD to identify service features which customers will find attractive, and help 'to charm and delight them'. In this way differentiating quality characteristics, features, and technical advantages can be established between the organization and its competition.

### 5.6. Conclusion:

After analyzing the House of Quality Matrix (page# 48) study found the following things to be considered for improvement of quality in higher education of University of South Asia.

Prioritized Customer Requirements:

* Foreign-degree holder full-time faculty    -    Absolute weight = 21
* Communications Skills    -    Absolute weight = 18
* Industrial Reputation    -    Absolute weight = 18

Prioritized Technical Descriptors:

* Curriculum Design & Development    ---- Relative weight = 522
* Establish English Language Club    ---- Relative weight = 369
* Hire foreign-degree faculty    ---- Relative weight = 294
* Maintain Standard Admission Test    ---- Relative weight = 255
* Admission Test Procedures    ---- Relative weight = 255

# CHAPTER 6

## <u>Human Resource Development Strategy</u>

People whose work affects product or service quality must be competent for that work, based on education, training, skills, and experience (*The International Standard for Quality Management System, Edition 2000, Leland R. Beaumont*).

### 6.1 Recruitment

The organization must decide whether to recruit personnel internally or externally. That is, the organization must decide whether to fill its vacant jobs with current employees or with applicants from outside the organization (*Human Resource Management, Lawrence S. Kleiman, 1997, Page116*)

The selected candidate must be complied with vacant position in respect of education, training, experience, and skills. Also, minimum qualification should be disclosed before hiring any candidate through internal or external referrals.

Generally, UniSA does not discriminate on gender, religion, age & appearance concerning selection of any stuff except a very few positions. The Proctor plays three key roles in the recruitment process. These are listed below:

**6.1.1. Identify Recruitment Needs**: Proctor usually identifies recruitment needs in all areas of university. The need to recruit may be triggered by any of the following conditions (*Human Resource Management, Lawrence S. Kleiman, 1997, Page128)*

- An outgoing incumbent must be replaced.
- Additional positions are added in response to increased workload.
- A newly created job is established.

**6.1.2. Communicating Recruitment Needs To The Vice Chancellor** : Proctor of the University must convey certain information to the Vice Chancellor ( Recruiter).

 - The needed skills/qualifications for the job

 - The attractive features of the job

 - The unattractive features of the job

### 6.1.3. **Interacting With Applicants**:

Proctor of the university interacts with applicants. This role is especially important because the actions of proctor can have a significant bearing on the perceptions of applicants. The proctor's behavior sends applicants strong signals about what would really be like if one were to accept a job offer(*Human Resource Management, Lawrence S. Kleiman, 1997, Page 128*). To ensure the signal is a positive one, a proctor should do the following:

-Keep applicants informed of their status during the recruitment process. If delays occur, let candidates know when they can expect further information or action.

- Schedule interviews at the proctor's convenience.

- Allow candidates to speak to their future' coworkers. This gives them a chance to ask questions they might not ask the proctor and also gives them a feel for what it would be

like to work for the company. Finally, Proctor shall issue an 'Appointment Letter' for'job confirmation to selected candidates and explicit the rules and regulations of the organization.

### 6.2.Training and Development

Training is a learning experience in that it seeks a relatively permanent change in an individual that will improve the ability to perform on the job. We typically say training can involve the changing or skills, knowledge, attitude, or behavior. It may mean changing what employees know, how they work, their attitudes towards their work, or their interaction with their coworkers or supervisor. For our purposes, we will differentiate between employee training and employee development for one particular reason. Although both are similar in the methods used to affect learning, their time frames differ. Training is more present-day oriented; its focus is on individuals' current jobs, enhancing those specific skills and abilities to immediately perform their jobs. For example, suppose you enter the job market during your senior year of university, pursuing a job as an HRM recruiter. Although you have a Business Administration degree with a concentration in Human Resource Management, when you are hired, some training is in order. Specifically, you will need to learn the company's HRM policies and practices, and other pertinent recruiting practices. This, by definition, is job-specific training, or training that is designed to make you more effective in your current job.

Employee development, on the other hand, generally focuses on future jobs in the organization. As your job and career progress, new skills and abilities will be required. For example, if you become a director of HRM, the skills needed to perform that job are quite different than those required for recruiting candidates. Now you will be required to supervise a number of HRM professionals; requiring a broad-based knowledge of HRM and very specific management competencies like communication skills, evaluating employee performance, and disciplining problem individuals. As you are groomed for positions of greater responsibility, employee development efforts will help prepare you for that day.

Irrespective of whether we are involved in employee training or employee development, the same outcome is required – learning. Learning is critical to making employees more effective and efficient on the job, so let's take a look at what we mean by learning ( *Human Resource Management, De Cenzo/Robbins, Fifth Edition, Page 237 – 238)*.

### 6.2.1. Training and Learning:

We have previously described training and development as a learning process. Of course, much of an employee's learning about a job takes place outside of specific training activities. But if we are to understand what training techniques can do to improve an employee's job performance, we should begin by explaining how people learn.

### 6.2.2. Theories of Learning:

Learning is the process of bringing about relatively permanent change through experience. This can be done through direct experience – by doing, or indirectly, through observation. Regardless of the means by which learning takes place, we cannot measure learning per se; we can only measure the changes in attitudes and behavior that occur as a result of learning. Two ways have dominated learning research over the years. These are operant conditioning, and social learning theory.

Operant Conditioning: Operant conditioning views learning as a behavioral change brought about by a function of its consequences. People learn to act in a manner to achieve something they want, or to avoid something they do not want. The tendency for an individual to repeat such

behavior, then, is influenced by the reinforcement (or lack there of) stemming from the consequences of behavior. Reinforcement, therefore, strengthens actions and increase the likelihood that individual will repeat the behaviors. As originally proposed by B.F. Skinner, operant conditioning focuses on learning from external sources, as opposed to learning that takes place from within. Skinner and his followers have argued that by creating consequences to follow certain behaviors, the frequency of that behavior will be altered. That is, individuals will most likely engage in appropriate behaviors if they are reinforced for doing so. For example, suppose you are unsure about spending the time to answer the 'Testing Your Understanding' questions at the end of each chapter. For the first exam, you do; and you score very highly on the exam. For exam two, however, you did not have the time, slacked off, and did not answer them at all. Your second grade was significantly lower. Operating conditioning, then, would indicate that you will be studying the questions again (the modified behavior), because there was a positive reward (reinforcement) in doing so. This same analogy applies to your work. If by learning, as demonstrated by some proficiency level, you will be taken off probation, then that reward will foster a learning endeavor. In operant conditioning, there are four ways in which behavior can be shaped. These are positive reinforcement, negative reinforcement, punishment, and extinction. Positive reinforcement provides a pleasant response to an individual's actions. A raise, promotion, or even praise for a job well-done would encourage the behaviors to continue. Negative reinforcement involves a reward that is unpleasant. " Writing-up" employees who fight on the job or who take extended lunch breaks would serve as disincentives to not engage in those behaviors. When those behaviors stopped, so too, would the negative reinforcement.

## 6.3. Appraisal:

An effective performance appraisal system can create competitive advantage
by improving employee job performance in two ways: by directing employee behavior toward organizational goals and monitoring that behavior to ensure that goals are meet(*Human Resource Management, Lawrence S. Kleiman, 1997, page 220*).

**6.3.1. Directing Behavior**: A good performance appraisal system reinforces an organization's strategic business plan by focusing attention on employee progress toward meeting their portion of the plan. In effect, the appraisal system lets employees know what is expected of them and

thus channels their behavior in proper directions(*Human Resource Management, Lawrence S. Kleiman, 1997, page221*).

**6.3.2. Monitoring Behavior:** A good performance appraisal system gives managers a way to monitor subordinates' job performances systematically and, hence, measure adherence to the strategic business plan. Such monitoring enables managers to motivate workers whose performance is 'on target' by recognizing and rewarding their good job performance. Further, managers can use performance appraisals to improve employees performance, if unsatisfactory, by identifying and correcting any performance problems

**6.3.3. Designing An Appraisal System:** Appraisal system development requires more than merely choosing an appropriate rating instrument. The designer of the system must also determine how it will be develop and administered *page232)*. UniSA follows the below listed steps to develop an effective appraisal system.

**Step#1**: Gaining Support For The System:

An appraisal system cannot be fully successful unless it has the support of the entire workforce; it must be acceptable to appraisers, employees, and upper management. If appraisers do not approve the system, they may respond with direct resistance or sabotage. For instance, if supervisors are not convinced that the system is practical, and think it is just another time-consuming, personal paper work requirement having no 'real-world' significance, they may not properly complete the forms. If employees do not trust the system or feel it is invalid, morale and motivation will drop and the possibility of a lawsuit will increase*)*. The organization must develop a system in which everybody has respect upon it.

**Step#2**: Choosing The Appropriate Rating Instrument:

Before choosing the rating instrument the organization must consider many factors. Three of the most important factors – practicality, cost, and nature of job – are discussed next.

The performance appraisal instrument must be practical if it is to meet the needs of the organization and should be easier to implement without taking several years to develop.

The costs of an appraisal system include development costs (e.g., constructing an appraisal instrument), implementation costs (e.g., training appraisers, developing written guidelines), utilization costs (e.g., appraiser's time observing, rating, and giving performance feedback). All things being equal, the lower the cost, the more useful the system

The nature of the job being evaluated has an important bearing on the appropriateness of the various rating forms. For example, Behavior Observation Scale (BOS) and Behavior Anchored Rating Scale(BARS) are require appraisers to' rate employee job behaviors. As a general rule, executive, managerial, and professional employees are usually rated based on results; employees occupying lower-level jobs are most often rated on behavioral or trait-oriented criteria (*Human Resource Management, Lawrence S. Kleiman, 1997, page236*).

University of South Asia, selected result oriented and behavior oriented rating instruments for teachers, counselors, business development manager, teaching assistance etc. It provides better access to judge both result oriented and behavior oriented factors at a time. **Proctor** of the university is responsible for such appraisal for all employees **once in a year**.
**Format**: Appraisal For Performance

## 6.4. Promotion:

University of South Asia decided that promotion and increment of faculties would be based on teacher's evaluation process (50% weight age), number of teaching & industrial experiences (30% weight age), and number of articles per year (20% weight age). University is more concern about Teacher's Evaluation Process because other two factors are easy to obtain. The University is interested in determining the type of educational setting most conducive to higher faculty evaluations from students – MBA courses, higher-level undergraduate courses, and lower-level undergraduate courses. Since the faculty's semester work load at this institution is three courses, after taking random sample of six faculty from business school who had been assigned one course in each of the three aforementioned types of educational settings and retrieved their end-of-semester evaluation forms.

The results below are mean (X-bar) rating on a 5-point scale (1 = poor, 5 = outstanding performance) to the question ( See the Teacher's Evaluation Form). Each of the ratings is from classes containing 10 – 25 students. These are listed as follows:

| Faculty | MBA Course | Advanced Level BBA Course | Lower-Level BBA Course | Means |
|---------|-----------|---------------------------|------------------------|-------|
| ROS | 4.40 | 4.20 | 4.30 | 4.30 |
| MR | 4.70 | 4.00 | 4.10 | 4.27 |
| PS | 4.50 | 4.30 | 4.00 | 4.27 |
| MZ | 4.40 | 3.90 | 4.65 | 4.32 |
| KA | 4.10 | 4.00 | 3.50 | 3.87 |
| MHR | 4.55 | 3.75 | 3.75 | 4.01 |
| Totals | 26.65 | 24.15 | 24.30 | |
| Means | 4.44 | 4.03 | 4.05 | X-Double Bar = 4.17 |

Data Source: University of South Asia, Banani

## ANOVA (Analysis of Variance):

To identify the individual's teaching ability, ANOVA has been designed. In a randomized block design model the total variation in the outcome measurement is the summation of three components --- among-group variation (SSA), among-block variation (SSBL), and inherent random error (SSE).
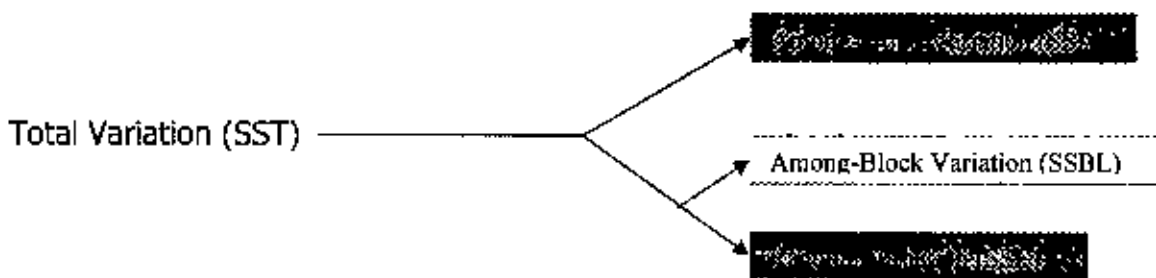


Figure # 5: Partitioning the total variation in a randomized block design model

## Development:

To develop the ANOVA procedure for the randomized block design model we need to define the terms as follows:

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$X_{ij}$ = the value in the i<sup>th</sup> block for the j<sup>th</sup> treatment group.

$X_i$ −bar = the mean of all the values in block i.

$X_j$ − bar = the mean of all the values for treatment group j.

$\Sigma\Sigma\ X_{ij}$ = the summation of the values over all blocks and all groups – the grand total.

$r$ = the number of blocks

$c$ = the number of groups

$n$ = the total number of observations ( where $n = rc$ )

X-double bar (Overall or grand mean) = $\Sigma\Sigma\ X_{ij} / rc$

$_{SST}$ (Sum of Squares Total) = $\Sigma\Sigma\ (Xij - X\text{-double bar})^2$

SST is a measure of the variation among all the observations.

SSA ( Sum of Squares Among Groups) = $\Sigma\ (Xj\text{-bar} - X\text{-double bar})^2$

where, $Xj\text{-bar} = \Sigma\ Xij / r$ , here $Xj$ = the treatment group means

SSBL ( Sum of Squares Among Blocks):

It is measured by the sum of the squared differences between the mean of each block Xi-bar and the overall or grand mean Xdouble-bar, weighted by the number of groups c.

SSBL = $\Sigma\ (Xi\text{-bar} - Xdouble\text{-bar})^2$ , here, $Xi\text{-bar} = \Sigma\ Xij / c$ (the block means)

SSE = $\Sigma\Sigma\ (X_{ij} - X_j\text{-bar} - X_i\ bar + Xdouble -bar)^2$

The inherent random variation also called the sum of Squares Error is measures by the sum of the squared differences among all the observations after the effect of the particular treatments and blocks have been accounted for.

MSA ( Mean Square/variance among groups) = SSA/C-1

MSBL = variance among blocks = SSBL / $r$ −1

MSE = SSE / $(r -1) (c- 1)$ = mean square error

## Calculation:

X-double bar = $\sum\sum$ Xij / rc = 75.1/18 = 4.17 , here r = 6 and c = 3

SST = $\sum\sum$ (Xij – X-double bar)$^2$

$= (4.4 - 4.17)^2 + (4.7 - 4.17)^2 + (4.5 - 4.17)^2 + (4.4 - 4.17)^2 + (4.1 - 4.17)^2 + (4.55 - 4.17)^2$

$+ (4.2 - 4.17)^2 + (4.0 - 4.17)^2 + (4.3 - 4.17)^2 + (3.9 - 4.17)^2 + (4.0 - 4.17)^2 + (3.75 - 4.17)^2$

$+ (4.3 - 4.17)^2 + (4.1 - 4.17)^2 + (4.0 - 4.17)^2 + (4.65 - 4.17)^2 + (3.5 - 4.17)^2 + (3.75 - 4.17)^2$

SST = 1.8762

SSA = r $\sum$ (X -bar – X-double bar)2 = 6 (4.44 –4.17)$^2$ + (4.03 – 4.17)$^2$ + (4.05 –4.17)$^2$
$\quad\quad\quad$ J

$= 6 (0.1069) = 0.6414$

SSBL = C $\sum$ (Xi-bar – Xdouble-bar)2 = 3 | ( 4.3 – 4.17)$^2$ + (4.27 – 4.17)$^2$ + (4.27 – 4.17)$^2$

$+ ( 4.32 - 4.17)^2 + (3.87 - 4.17)^2 + (4.01 - 4.17)^2]$

$= 3 ( 0.175) = 0.525$

SSE = $\sum\sum$ (Xij – Xj-bar – Xl bar + Xdouble –bar)2

$= (4.4 - 4.44 - 4.3 + 4.17)^2 + (4.7 - 4.44 - 4.27 + 4.17)^2 + (4.5 - 4.44 - 4.27 + 4.17)^2$

$+ ( 4.40 - 4.44 - 4.32 + 4.17)^2 + ( 4.10 - 4.44 - 3.87 + 4.17)^2 + (4.55 - 4.44 - 4.01 + 4.17)^2$

$+ (4.2 - 4.03 - 4.3 + 4.17)^2 + (4 - 4.03 - 4.27 + 4.17)^2 + (4.3 - 4.03 - 4.27 + 4.17)^2$

$+ (3.9 - 4.03 - 4.32 + 4.17)^2 + (4.0 - 4.03 - 3.87 + 4.17)^2 + (3.75 - 4.03 - 4.01 + 4.17)^2$

$+ (4.3 - 4.05 - 4.3 + 4.17)^2 + (4.1 - 4.05 - 4.27 + 4.17)^2 + (4 - 4.05 - 4.27 + 4.17)^2$

$+ (4.65 - 4.05 - 4.32 + 4.17)^2 + (3.5 - 4.05 - 3.87 + 4.17)^2 + (3.75 - 4.05 - 4.01 + 4.17)^2 = 0.7038$

MSA = SSA/C-1 = 0.6414 /2 = **0.3207**

MSBL = SSBL/r –1 = 0.525 / 5 = **0.105**

**MSA =** $SSA / C-1 = 0.6414 / 2 = $ **0.3207**

**MSBL =** $SSBL / r - 1 = 0.525 / 5 = $ **0.105**

**MSE =** $SSE / (r - 1)(c - 1) = 0.7038 / (5)(2) = $ **0.07038**

**Among Treatments, F = MSA/MSE = 0.3207/0.07038 = 4.56**

**Among Blocks , F = MSBL/MSE = 0.105/0.07038 = 1.49**

**Level of Confidence = 95% has been considered.**

$H_0 : \mu_1 = \mu_2 = \text{-----------} \ \mu_c$

$H_1$ : Not all $\mu_j$ are equal (where j = 1, 2, ---- C)

**Rejection Creteria**

Reject $H_0$ if $F > F_{u \ [(c-1), (r-1)(c-1)]}$ , otherwise do not reject $H_0$ .

## AMONG TREATMENTS

Found that, $F = MSA/MSE = 4.56$ and $F_{u \ [2, \ 10]} = 4.10$ from (*Statistical Quality Control, Douglas C. Montgomery 1991, Appendix V, A-12*)

Here, $F > F_{u \ [2, \ 10]}$ , **Reject Ho.** There is an evidence of a difference in the average score of the different business courses.

## AMONG BLOCKS

$F = MSBL/MSE = 0.105/0.07038 = $ **1.49** and $F_{u \ [(r-1), \ (r-1)(c-1)]} = F_{u \ [5, \ 10]} = $ **3.33** from table (*Statistical Quality Control, Douglas C. Montgomery 1991, Appendix V, A-12*)

Here, $F_{u \ [5, \ 10]} > F$ Thus, do not reject Ho. That means, there is no evidence of a difference among the groups of faculty. Thus, $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$

# CHAPTER 7:

## Marketing Strategy

### 7.1. Public Relations:

Public relations (PR) involves a variety of programs designed to promote or protect a company's image or its individual products. A public can facilitate an organization's ability to achieve its objectives. Public relation has often been treated as a marketing stepchild, an afterthought to more serious promotion planning. But the wise organization takes concrete steps to manage successful relations with its key publics. Most companies operate a public-relations department. The PR department monitors the attitudes of the organization's public and distributes information and communications to build goodwill. When negative publicity happens, the PR department act as a troubleshooter. The best PR departments spend time counseling top management to adopt positive programs and to eliminate questionable practices so that negative publicity does not arise in the first place. They perform the following five functions ( *Marketing Management, Philip Kotler,p 608, Tenth Edition*)

1. Press relations: Presenting news and information about the organization in the most positive light. Most of the private universities of Bangladesh are presenting news and information this way.

2. Product publicity: Sponsoring efforts to publicize specific products.

3. Corporate communication: Promoting understanding of the organization through internal and external communications.

4. Lobbying: Dealing with legislators and government officials to promote or defeat legislation and regulation.

5. Counseling: Advising management about public issues and company positions and image. This includes advising in the event of a product mishap.

Establishing the Marketing Objectives:

Marketing Public Relations directly support corporate or product promotion and image making. Thus MRP, like financial public relation and community public relation, serves a special

constituency, namely the marketing department. Marketing Public Relations can contribute to the following objectives:

- Build awareness: MRP can place stories in the media to bring attention to a product, service, person, organization, or idea.

- Build credibility: MRP can add credibility by communicating the message in an editorial context.

- Stimulate the sales force and dealers: MRP can help boost sales force and dealers enthusiasm. Stories about a new product before it is launched will help the sales force sell it to retailers.

Major Tools in Marketing Public Relations:

- **Publications**: Organizations rely on published materials to reach and influence their target markets. These include annual reports, brochures, articles, company newsletters and magazines, and audiovisual materials.

- **Events**: Organizations can draw attention to new products or other company activities by arranging special events like news conference, seminars, contest and competitions, anniversaries, and sport and cultural sponsorships that will reach the target publics.

- **News**: One of the major tasks of public relation professionals is to find or create favorable news about the organization, its products, and its people. News generation requires skill in developing a story concept, researching it, and writing a press release. But the PR person's skill must go beyond preparing news stories. Getting the media to accept press release and attend press conferences calls for marketing and interpersonal skills.

- **Speeches**: Speeches are another tool for creating product and company publicity. Lee Iacocca's charismatic talks before large audiences helped Chrysler sell its cars. Private university usually arrange inauguration speech, orientation speech, opening speech for seminar and other different types of programs. These activity create image for the university and build a relationship with community, business and industry.

- **Public-Service Activities**: Organizations can build goodwill by contributing money and time to good causes. Large organizations typically ask executives to support community affairs. In other instances, organizations will donate an amount of money to a specific cause.

- **Identity Media:** In a society marked by sensory overload, companies compete for attention. They need a visual identity that the public immediately recognizes. The visual identity is carried by company logos, stationery, brochures, signs, business forms, business cards, buildings, uniforms, and dress codes (*Marketing Management, Philip Kotler, Page 608, Tenth Edition)*

Implementing the Plan:

Implementing public relations requires care. Consider placing stories in the media: A great story is easy to place, but most stories are less than great and might not get past busy editors. One of the chief assets of publications is their personal relationship with media editors. PR people look at media editors as a market to satisfy so that these editors will continue to use their stories.

Evaluating Results:

Marketing Public Relations' contribution to the bottom line is difficult to measure, because it is used along with other promotional tools. If it is used before the other tools come into action, its contribution is easier to evaluate. The three most commonly used measures of MPR effectiveness are number of exposures; awareness; comprehension, or attitude change; and contribution to sales and profits. Sales-and-profit impact is the most satisfactory measure (*Marketing Management, Philip Kotler, Page 608, Tenth Edition)*. University of South Asia is using the following method to find out the contribution margin added by public relation investment as a semester (4 months) basis. The first semester total student were 42 and among them 10 were from coaching centers.

| | |
|---|---|
| Total sales increase | Tk.12,60,000 |
| Estimated sales increase due to PR( 24%) | Tk. 3,00000 |
| From corporate communication | |
| Contribution margin on product sales (15%) | Tk.   45,000 |
| Total direct cost of the program | Tk. -20,000 |
| | ------------- |
| Contribution margin added by PR investment | Tk. 25,000 |

## 7.2 Theories of Marketing in Higher Education

Higher education has faced criticism from many quarters in recent years, attacking curriculum, standards, personnel practices, costs, and a sense of unresponsiveness. If viewed from a market perspective, it might be observed that the production that higher education represents is being criticized for failing to meet the needs of the consumer, represented by society. The process by which the producer prepares an offering and interacts with the consumer is typically referred to as marketing, and is described in a body of marketing theory. The theoretical perspectives in marketing literature provide insights that could help institutions in thinking about their market relationships and responses to current market dynamics.

The general definitions of a market envision a coming together of buyer and seller. For this study market is the construct for the environment in which exchanges occur. Exchanges are defined broadly, distinguishing them from quid pro quo transactions. The idea of a market requires that some participating parties have options for their exchanges; hence, it is implicitly competitive. The concept of a market is not restrictive of who may participate, and exists for non-profit as well as profit-taking enterprises.

Market relationship refers to the interaction of two parties who have previous or ongoing exchanges. Marketing is purposeful interaction in the market by those who seek to attract exchanges. Marketing is seen as activity that is distinct from selling (Fennell, 1987). In terms of higher education, Philip Kotler (Kotler & Fox, 1995) offers the following:

Marketing is the analysis, planning, implementation and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets to achieve institutional objectives. Marketing involves designing the institution's offerings to meet the target markets' needs and desires, and using effective pricing, communication, and distribution to inform, motivate, and service these markets (p. 6).

The marketer is one who helps shape and present the market offering. This normally requires some specialized knowledge of the value that is sought in exchanges by others. The role of marketer is inevitably described as a creative one. Marketing is conceived as a two-way communication experience in which the marketer looks to some grouping of consumers to

manifest a need, which the marketer seeks to fulfill. The marketer is clear about the idea that she should have a role in shaping the product, and that it is her role by definition.

Higher education exists in a market environment in at least six respects. First, and most apparent, it serves as a producer of educational products and services for its client population of students. It seeks to market those services to those who would seek educational offerings. Second, educational institutions seek to attract donations of value. This activity falls less comfortably within some understandings of a market, and relies upon complex concepts of exchange as a foundation of marketing. Third, knowledge-based services are provided to grant and contract funders. Fourth and fifth, educational institutions seek approval and general support from a larger community and the society at large. This outreach falls under more complex perspectives, touching on social and cultural environments and relationships. Finally, higher education institutions exist in a market relationship with their suppliers and personnel. These interactions suggest that the theoretical constructs of marketing should bear upon institutions of higher education. Though there may be many differences, the operations of the markets in which higher education participates should be consistent with market theory.

Some differences are notable. Higher education has very complex products, and it is not a simple matter to identify and attribute value-producing activity. The exchanges in which higher education participates typically involve highly intangible matter. The institution itself is often motivated by real goals that arise from coalitions within, rather than from the employer or owner. It competes in the market with other institutions, but lacks a profit motive to provide a measure of success. With regard to the creativity of marketing, higher education generally has not permitted the professional marketer to participate in shaping its practices. The implications of these and other differences are examined in the study.

This study begins with a discussion of the general theories of marketing and exchange theory. Theories of the firm describe the nature and motives of the producing enterprise. Market paradigms and theories of competition include a look at the meaning of financial performance and the resource advantage model of competition. Theories of the consumer explore the consumption experience, relationship marketing, humanistic marketing, and postmodern perspectives. The conclusion draws a few pointed observations from the analysis.

## 7.3. General Theory

Various approaches have been taken to classify and categorize constructs in the field of marketing, such as functions, properties, activities, and other aspects. The single most pervasive listing is the marketing mix and its "Four Ps" components: Product, Price, Place, and Promotion (Waterschoot & Van den Bulte, 1992). The concept of the marketing mix dates to 1953 and referred to "the mixture of elements useful in pursuing a certain market response" (p. 84). Writers then started to itemize all those things that affect the marketing mix. The 4P approach, attributed to Jerome McCarthy in 1960, became the dominant classification, which persists as a staple of marketing literature today.

The concept has not been without problems. There has been no agreement on just what this group represents categorically, and the fourth P, Promotion, often has been recast as communication. The list does correspond to a list of "generic market functions" offered by other authors: configuration, valuation, facilitation, and symbolization (Waterschoot & Van den Bulte, 1992, p. 86). The idea of classifying functions was further developed as:

> 1. Configuring something valued by the prospective exchange party.
>
> 2. Determining the compensation and the sacrifices the prospective exchange party must make in exchange for the offer.
>
> 3. Placing the offer at the disposal of the prospective exchange party.
>
> 4. Bringing the offer to the attention of the prospective party, keeping its attention on the offer, and influencing normally in a positive way its feeling and preferences about the offer. This is communicating the offer (p. 89).

This functional taxonomy is helpful in describing the work of marketing. Recognizing that any item may be executed perfunctorily, it is not difficult to see that these are generally accepted necessary conditions for exchanges to occur.

Attempts to define a general theory of marketing began appearing in marketing literature in the late 1960s. Robert Bartels (1968) advanced a General Theory based upon seven specific theories. Although found to be problematic, the effort did provide a baseline for framing a marketing definition.

In Bartels's scheme, the theory of social initiative asserts that marketing is what a society does to provide the products in needs. The theory of economic separations says there are a variety of separations between producers and consumers such as time, distance, information, and resources, which a re o vercome b y marketing. T he t heory o f m arket roles, e xpectations, a nd i nteractions says there is a range of roles society plays in the market interaction, such as manager, employee, consumer, competitor, and community. They all have a variety of expectations of the interaction, which is, itself, the marketing process. The theory of flows and systems says that elements flow through a variety or system of interactions in the marketing process. The theory of behavior constraints says economic factors represent only one of the many constraints in the interaction. The theory of social change and marketing evolution says system and behavior patterns are not static, but are continually evolving. The theory of social control of marketing says society exerts control over the marketing mechanism.

Bartels's General Theory is very general. It is fundamentally definitional and provides little insight to the dynamics and mechanism of marketing. In 1965, Wroe Alderson (1965) advanced a functionalist theoretical approach to marketing. He examined the marketing process in order to determine how it works and concluded there are two significant, dynamic functions that interact. Alderson conceptualized the functions as organized behavior systems operating in heterogeneous markets. He argued that the marketing process is one that begins with "conglomerate resources in their natural state," and concludes with "meaningful assortments in the hands of consumers." Marketing is the placing of those assortments. Alderson described a theoretically homogeneous market as one in which there is un-segmented demand for certain types of goods which are the same as those offered. In a perfectly heterogeneous market each segment of demand can be satisfied by a single segment of supply. The job of marketing is to match these segments.

The principal organized behavior systems are the household and the firm. The household has power as a system because it offers a surplus to its participants that they would not expect to enjoy alone. Firms exist as a specialization of production, and have a survival motive, because its members believe they can receive more for their production within the firm than acting alone. Households are primarily consuming entities, and firms are primarily producing entities.

The assortments desired by each household differ and collectively represent a heterogeneous market. Firms compete for differential advantage in obtaining the patronage of households,

which leads to innovation in marketing (improvement in creation of assortments for the heterogeneous demand). To meet heterogeneous demand, heterogeneous supply occurs when new firms enter the field, which they do because they expect some differential advantage that would give them an "ecological niche." Competitors move to neutralize this advantage through activities, which are intended to enhance value to their own advantage.

Alderson's representation of market functioning can be seen easily to embrace the education services activities of higher education. First, the household generally remains the organized behavior system that seeks the education products for its members. The demand is very heterogeneous, as families seek a broad range of education products. The firm, as embodied in the educational institution, develops core products for specific segments of the market of households. Offerings and programs are broadened to provide more services and serve a broader range of the heterogeneous demand. The role of the market is to bring together these services with that demand, placing, as it were, the appropriate assortment of education products in the hands of the consumer. A particular segment of demand may go unfilled or poorly filled, and existing institutions may elect not to innovate to serve it. The market mechanism thus creates the opportunity for new institutions to seek differential advantage by serving that demand, or serving a demand more satisfactorily than existing institutions. Existing institutions might then move to neutralize that advantage. In cases in which they would compete directly for the patronage of some segment of the same households, they would attempt to create greater value for the consumer.

These foundational efforts to describe marketing as a process and to articulate the functional components of the market serve to lay the ground for understanding higher education as a market entity. A m uch m ore fundamental c oncept, h owever, i s t he r ole o f e xchange a s t he r oot o f a market transaction.

## 7.4. Exchange as a market event

The idea of exchange as the foundation of marketing has been a central theme for many scholars. Some have felt that only certain types of exchanges transactions involving money or items of clear value are appropriate concerns for marketers. Others see a much broader range of

exchanges as falling within the market domain and the discipline of marketing as the study of exchanges (Bagozzi, 1979).

A broader view of exchange recognizes the importance of interests. Literature on negotiation places particular emphasis on the ideas of creating and claiming value around interests (Fisher & Ury, 1991; Lax & Sebenius, 1986). Two parties may consider exchange of particular goods for money. However, each party typically has other interests at stake in the transaction, and can create value by serving the other party's interests, thereby expanding the scope of an agreement. For instance, a vendor has an interest in a continuing relationship, and a purchaser has an interest in personalized attention. The vendor may be willing to accept less money in return for a promise of a future satisfactory exchange if the present one is completed successfully. These interests can be understood very broadly, to the point of including psychological and emotional rewards, as well as tangible returns and behaviors.

Exchanges can be categorized according to their structure and participants (Bagozzi, 1975). In restricted exchanges, commonly seen as transactions, there is a direct quid pro quo. This type of exchange, in which two actors give to and receive from each other, is widely recognized as a domain for marketers. In generalized exchange at least three actors are involved, and each does not benefit directly from the actor to whom she provided value. Rather, they enjoy a collective benefit, or receive benefit directly from a party other than that to whom they gave value. Complex exchanges recognize some direct exchanges between parties while each receives a general benefit. Almost all of the exchanges for higher education can be considered complex and generalized.

The generalized and complex types of exchange include such highly organized interactions as the marketing channel and public welfare. The marketing channel thrives on complicated exchanges and interactive behaviors to exert influence throughout a web of suppliers and service providers. Putting aside the question of its role as a market participant, public welfare represents a complex exchange among the general public, the government, and welfare recipients. Returns for the general public include a sense of security for minimal economic needs and prevention of the negative social and economic consequences of a population that cannot meet minimum economic needs.

The content of exchanges may be utilitarian, symbolic, and mixed (Bagozzi, 1975). In symbolic exchanges the object of exchange has more meaning for the consumer than any utilitarian value it might hold. In fact, most exchanges are not direct economic interactions, but "are probably characterized by the transfer of bundles of physical, psychic, and social entities" (Bagozzi, 1979).

A broad understanding of the significance of exchange theory and the matter of exchange is critical for higher education. The abstract nature of the education experience, the enormous symbolic value of higher education experiences, the lack of apparent tangible benefit for charitable giving, and the complicated relationship with community settings and society at large go well beyond the fundamental economic exchange.

Exchanges that are fundamental to higher education relate to six different constituencies and take place with as many different purposes for the institution. Three involve the institution in the role of producer, providing value primarily in return for monetary resources. One places the institution in the role of consumer, exchanging money for production resources. And one blurs the producer/consumer distinction. The most evident is the exchange interaction with the student. Other exchanges exist with research and contract funders, with donor patrons, with suppliers and personnel, and with the community and society at large. It is important to recognize the range of interests that constitute value in these exchanges.

The exchange with the student is typically the most visible and fundamental to the institution, in that it represents the core product value the institution ostensibly exists to create. As a restricted, utilitarian economic exchange, the institution agrees to provide an education experience of a defined sort, along with some level of supporting services for a stated price. However, what each party actually receives in the exchange goes well beyond this bare interaction.

The returns for the student in this exchange are complex. Not only does she receive an education experience, but everything associated with it has tremendous meaning. The field of study, degree, and imprimatur of the institution all have assigned symbolic meanings and values in the culture at large, in the culture in which the student will abide in her work life, and in the culture in which she abides in her personal world of family and friends. The fact that she is pursuing

higher education at all carries its own cultural value, as well. All of these symbolic values will have implications for her opportunities and potential capacities in her future.

For the institution, in addition to the tuition and fees, the student, herself, also constitutes a "physical, psychic, and social entity." Some of the properties of the individual student may be very desirable to the institution for its own purposes. A strong athlete or musician may win school recognition, which can improve its reputation and market position. A member of an ethnic minority may make important cultural contributions to the education experience of other students, as might a strong scholar or student leader, adding benefit and value to the core product of the institution.

The exchange takes on complex aspects when the generalized benefit of the collective contributions of all students is considered. By giving money to the institution, a student receives benefit from other students who are a third party in the exchange, and a generalized benefit in the education environment that is created by the specific students selected by the institution. It is notable that, although the institution may intend for the student contribution to occur by design, it is not the institution that is adding the value directly. The student is recast in the role of resource; in fact, the institution selects these resources in that it selects some students and not others, and all students do not pay the same tuition and fees.

A second exchange that involves the core work of the institution occurs with grants and contract funders. Of all exchanges for income, this appears to be the most direct and economic, but it can be deceptive. The grant funder solicits proposals to perform research or develop new practices which the funder believes should be done, selects from among competing offers, and awards the grant to particular individuals and institutions. In return, the institution, through its personnel, performs the service. Even if the grant is awarded to an individual, the institution is involved if it is part of her professional activity with the institution. The grant funder receives the service performance in direct return, but may also benefit from the creation of a resource dependency at the institution, special attention to its issues by the institution and the personnel involved, and, some would contend, the possibility of influence upon the ideological independence of the institution.

For its part, the institution primarily receives funds to support the activity of the grant. In actuality, the grant exists more often as a partnership between the grant funder and the institution. The institution may desire to pursue a particular research interest or to develop certain changes in practices for its own reasons, and undertakes agreement with the grant funder that meets both its own interests and those of the funder. Broader benefits accrue to the institution, because the grant provides the support needed to specialize some aspects of its enterprise, providing the benefits of specialization to other institutional efforts. The grant may employ, for example, a specialist scholar. That expertise, while primarily directed toward serving the grant, will also be available to colleagues, students, and others, and will affect the internal structures of the program, department, and institution, itself.

The successful acquisition and completion of a particular grant by a particular institution often has symbolic significance, as ascribed by the higher education and grants making community. Through the grant the institution acquires recognition as a location where particular knowledge resources reside. That reputation has value to the institution in leveraging its appeal to students and potential faculty. It is also critically important in leveraging additional awards from the same and other funders.

Differing slightly from grants, contracts are let for institutions to perform defined services using its particular resources. Such activities may include specialized in-service training programs, educational or cultural presentations, conferences and workshops, or preparation of special intellectual property. These are sometimes treated similarly to grants by the institution, and they have many common aspects. The by-products of the exchange are equally complex, and serve multiple interests for both the institution and the funder.

The institution enters into a generalized exchange relationship with the local community, one in which both parties may be considered producers and consumers. The community accommodates the institution, its disruptions, and its pressure on services, and provides political support and community services, while the institution provides knowledge based services, convenient access to learning, cultural amenities, economic stimulus, and social prestige.

The institution also enters into an exchange with the segments of society represented by its control authority and manifest in its student pool. In this case the institution provides education

services of a defined nature in return for various resources, particularly monetary. State institutions are involved highly in this exchange, and denominational schools have similar arrangements to varying degrees. For independent institutions there is less differentiation from the exchanges with donors. The school provides a particular kind of education experience in return for resources and other forms of support, such as preferential social and professional access for graduates.

The institution has a less apparent exchange with those who donate money, because the benefit to the donor is less visible. Value for the consumer, or donor, is clearly determined by individual needs, and in many cases, matter of high value to one may be of less value to another. Given that there may be tax advantages to giving, the net perceived cost to the donor is likely to be something less than the face value of the donation. Both the symbolic and utility values of the donation also may be less for the donor than they are for the institution.

In return for largess, the donor receives acclaim for her altruism, both by the institution and by society at large. This may be very fulfilling personally to the donor, but in many cases it also opens up important social and economic opportunities. The institution may grant special privileges within its own purview, while recognition as a donor is required for an invitation to sit on many boards of directors, which can then lead to certain powers and other advantages, both social and economic. Thus, these opportunities include those that are not directly provided by the institution, as well as those that are, again emphasizing the complex nature of the exchange.

The exchange relationships the institution maintains with its suppliers and personnel mark its role as consumer, and its position at the end of the marketing channel. This relationship differs little from that of large scale service industries with their suppliers and personnel, although the specific arrangements with faculty may have few parallels beyond the academy. For the most part, these supplier and personnel exchanges are bargained interactions with all parties attempting to maximize their returns. These exchanges are also subject to agreements involving non-economic factors and contingencies.

Higher education is clearly involved in the market through its various exchanges with a variety of constituencies. Those exchanges are highly complex and involve substantial benefits mixing utilitarian and symbolic values. Interactions between institutions and their constituencies

resemble profit sector exchanges in some ways, but rely upon different sets of value and costs. These differences are inherent in the different motives of the enterprise itself, as suggested by theories of the firm.

## 7.5. Theories of the firm

The market exists as organized behavior systems seeking exchanges to satisfy needs. The consumer part of the system is assumed to be motivated by consumption needs, but it is less clear what might constitute a production need. Production, in fact, can be more realistically conceived as a means, rather than a goal. What is the incentive to produce?

The motives and purposes of the firm are important factors in its market behavior, and various models have been advanced to understand firm motivations (Anderson, 1982). The schematic approach of the neoclassic model vests all decision-making in the single owner-entrepreneur, whose intent is to maximize the dollar amount of profit. The market value model bases business decisions on how they will affect the market value of the enterprise itself. The agency costs model recognizes the corporate structure, where managers act as agents of the owners, but may have conflicting interests. A behavioral model sees the firm as composed of coalitions of individuals who often have competing interests, making overall maximization of goal performance impossible. In the resource dependence model, the firm focuses on maintaining its resources and support from external coalitions. Anderson's constituency based theory draws upon the behavioral and resource dependence models, and focuses upon internal coalitions and their relationship to external constituencies.

When applying marketing theory to public enterprises, the lack of a profit motive complicates the discussion. Profit motive in higher education is substantially limited to some small, highly specialized schools and proprietary institutions, which may be led by private entrepreneurs. It is very rare that a traditional institution might change ownership or be publicly traded, as could occur for most for-profit firms. While some decisions might reflect concern for the value of the institution, they are more likely to reflect public relations considerations. The concern is for appeal to students, donors, and the supporting public, and not for those who might acquire its assets. Colleges and universities are directed by boards of trustees, who represent the community and the primary funders. The board does not represent a defined body of shareholders concerned

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with maximizing profits, but is normally concerned with maintaining resources and their efficient use in pursuit of major goals. The president, as the board's agent, is expected to manage the institution toward board goals. There are some costs to resources involved in this agency, but they are not costs to profits and returns to shareholders. As descriptive models for institutional motives, the neoclassic, market value, and agency costs approaches rely too greatly upon profit as a primary measure of institutional values.

### 7.5.1. Market Environment and the Entrepreneur.

The neoclassic models see the market environment primarily as affecting the firm, and minimize the possible impact of the firm on the environment. It is now clear that the firm that seeks to gain advantage has the capacity to alter the environment for all firms (Savitt, 1987). Where the neoclassic model saw the market environment tending toward equilibrium, the role of the entrepreneur can be seen as purposefully disrupting equilibrating forces by creating new alternatives for consumers and constraining the opportunities for competitors.

The entrepreneur seeks to alter the environment, simultaneously disrupting established patterns in producer and consumer behavior, while building strong connections with consumers for her own production. Environment altering strategies include maximizing consumer access and time directed at selecting and consuming the entrepreneur's products, while minimizing access and time directed at selecting and consuming competitors' products. The entrepreneur may also attempt to inhibit access by other market participants to certain tangible and intangible resources while maximizing her own access. Retail producers follow these strategies in their competition for shelf space and advertising space, and, in their promotions for repeat sales. Financial institutions provide inducements for consumers to entrust them with all their financial affairs, and they assess fees or penalties for choosing to go elsewhere.

In higher education, a variety of competitive strategies are often used, if less visibly. Institutions and faculties act politically through professional and accrediting bodies to ensure that all institutions insist that students face certain education experiences that they might otherwise avoid. Institutions frequently rely on coordinating boards to limit or define competing programs at other institutions. There are typically many restrictions on transfer of credit from other institutions. Branch campuses are developed in population centers not conveniently served by

competing schools. Donors are given special incentives for regular, repeat donation, and they are encouraged to enter into planned giving, thus pre-emptively tying up funds that others might solicit. These and similar strategies seek to modify the competitive environment in favor of the institutions seeking advantage. What the successful institutions achieve is a resource advantage.

### 7.5.2. Financial Performance in Higher Education

The firm described in the resource dependence and constituency based models produces to survive. To the extent that it may be unable to attract sufficient consumers to its product in the future, the firm competes in order to survive. Survival alone, however, is insufficient for understanding competitive success.

A particularly valuable competitive measure is the firm's financial performance. Market position and effectiveness are not directly observable, but must be inferred from other indicators (Hunt & Morgan, 1996). In a profit-motivated enterprise, financial performance provides a clear feedback communication regarding its ability to compete efficiently and effectively for consumer preferences. Higher education lacks the profit motive, and a similar aggregate indicator is difficult to find.

Financial performance can be indicated by a variety of measures, including profits and return on investment, but these can be expected "to vary somewhat from firm to firm, industry to industry, and country to country" (Hunt & Morgan, 1995). The flexibility to define financial performance according to an industry criterion is a critical distinction for higher education. Institutions may measure the accumulation of particular funds against prior years and other institutions, such as levels of tuition, grant, or donor income and state funding. But these do not express financial performance in general. In fact, financial performance in higher education finds a very different expression from that in profit industry.

Clearly, institutions of higher education do compete among themselves and with other entities in the six exchanges or markets identified. They do take strategic action, and there are expectations for what should accrue from successfully competing. If a given institution were asked what possible gains it sought from an improved market position, it would be unlikely to cite greater surplus income for improved compensation to executives and lower draw on state funding and foundation revenues.

In fact, the list might include better salaries, better facilities and equipment, more staff, more services, new programs, reduced faculty workloads, smaller classes, and more scholarship or tuition-reduction support for students. Depending on the institution, its control and its mission class, a desire for more students is likely to be focused, as in better prepared students or more students for particular programs. For the most part, these gains that are to be realized from a better market position are evidently targeted toward further development of the resource base itself.

This observation suggests that, in a manner exactly opposite that of for-profit industry, financial performance in higher education is really expressed by the institution's capacity to invest money rather than extract it. The capacity to invest money is an indirect indicator of the capacity to competitively attract investment through its exchanges, just as profit performance indirectly indicates the ability of a firm to competitively attract favorable market exchanges. Given the desired benefits of successful competition, above, the financial success of the institution is most appropriately expressed by its capacity to invest in resources to produce a unit of value for the consumer. The capacity to invest might be measured by such factors as aggregate income streams, net resource value above costs, or some formula that might capture resource value. Smaller classes, lower faculty workloads, better facilities, more staff, better salaries to attract better faculty, and more services represent increased investment in resources allocated for the benefit of each student, presumably to improve the education experience. Increased funding for prestigious opportunities for donors, greater expertise at the service of grants and contracts, and more clinics and cultural services for the community represent the increased allocation of resources, enabled by greater funding, realized from successful competitive behavior. What is more, this approach on the part of the institution becomes self-fulfilling because it further enhances its comparative resource advantage.

A study of correlation between national rankings of institutions and their resource capacity as related to some appropriate unit of production should be informative. Recent rankings of Ph.D. programs illustrate the point (U.S. News & World Report, 1998, pp. 87-94). Recurrent names in the top five graduate schools for each of twelve humanities and sciences fields are institutions recognized to have tremendous resources, financial and otherwise. These include Harvard, Stanford, Yale, and Cornell Universities, and the University of California - Berkeley, among

others. The basis for these rankings is reputation within discipline "for scholarship, curriculum, and the quality of faculty and graduate students" ( p. 189). Two of these criteria are clearly resources _ curriculum and faculty _ and the other two _ scholarship and students _ are outcomes theoretically indicative of the quality of resources. The fact that the survey is reputational implicitly recognizes the power of the reputation resource. There seems little question that the top ranked institutions have the capacity to invest heavily in these resources.

### 7.5.3. Resource Advantage Theory

Resource advantage theory rejects almost all of the fundamental assumptions of the neoclassic model (Hunt & Morgan, 1995). Demand is heterogeneous, highly segmented, and constantly evolving. Neither consumers nor producers have perfect information, and what information they can a cquire i s o ften c ostly i n t ime o r m oney. T he s elf-interest p roducers a nd c onsumers m ay have i n m aximizing t heir e xchanges i s c onstrained b y a v ariety o f p ersonal, s ocial, a nd l egal influences. The resources employed by the producing firm are both tangible and intangible, and include such important factors as core competencies and other capacities of a higher order that are not widely distributed. These resources make each firm unique to some degree, giving it the potential to hold a comparative advantage over other producers in the market. The role of management is to implement strategies that yield a position of competitive advantage. This is done by neutralizing advantaged producers through imitation, substitution, innovation, or acquisition of unique resources.

The resource advantage theory of competition operationalizes success as "superior financial performance" (Hunt & Morgan, 1995). This is to be measured against some referent which "might be the firm's own performance in a previous time-period or that of a set of rival firms, an industry average, or a stock market average" (Hunt & Morgan, 1996). While neoclassic theory saw net profits as accidental departures from perfect competition and, therefore, somewhat suspect, the resource advantage theory sees superior financial performance as the primary objective in firm behavior. As indicated above, financial performance in higher education must be measured differently from for-profit enterprises.

The resource advantage model recognizes that each firm is a unique entity, a product of its history. It has a unique mix of resources it has acquired or developed at its disposal, and the basis for a firm's competitive position is its mix of resources.

A comparative advantage in resources exists when a firm's resource assortment (e.g., its competencies) enables it to produce a market offering that, relative to extant offerings by competitors, (1) is perceived by some market segments to have superior value and/or (2) can be produced at lower costs (Hunt & Morgan, 1995).

The emphasis on unique resources as the primary basis of competitive advantage is particularly apt for higher education. In the market for students, for example, multiple institutions may offer highly comparable programs, but the education experience among institutions will vary greatly. The differences will range from such tangible issues as cost, location, facilities, and time of offering, to such intangible factors as faculty expertise and demeanor and the mix of students sharing and contributing to the experience.

Institutions compete in several ways. As with other knowledge industries, advantages exist with unique personnel resources. If one individual is reasonably unique, she is capable of committing her services wholly, responsibly to one position, and institutions will compete among themselves for this limited resource. Other institutions may attempt to acquire equivalent or superior faculty resources. They may innovate, perhaps by team teaching or by developing the capacities of existing faculty. Or they may find a new resource that offers superior performance, such as might be found by applying technology in the place of some faculty capacities. Resource advantage theory observes that different assortments of resources may be equally effective in producing the same value for some consumers, suggesting that many institutions can offer equally effective education experiences in a given field, though they may differ in the particular mix of resources employed.

The same resources may not provide the same advantage to different institutions, however, because the resources may be interconnected with other resources at the same institution. The effectiveness of a given faculty member may differ between two institutions because the professional environment, collegial interactions, and the influences upon the faculty member will differ. The most difficult resources for other firms to acquire are the complex resources that are

highly interconnected, or those tacit resources that are created in place. These qualities are common to knowledge resources in higher education.

The resource advantage model accounts for loss of advantage through internal and external factors (Hunt & Morgan, 1995). Internally, a firm can fail to invest in its unique resources, fail to understand what advantages particular resources contribute, or fail to adapt as the competitive environment changes. These dangers are particularly notable for higher education, and avoiding them is not simple.

External factors in loss of advantage include actions of consumers, government or competitors. Changes in consumer taste may turn resource investments into liabilities, government regulation or changes in law c an neutralize resources that h ave yielded advantage, and competitors may acquire superior resources. Consumer taste has shifted in higher education, as is evident in foreign language programs. Laws and regulations have ramped up particular program requirements to the point some institutions could no longer compete for those consumers. Competitors are ever seeking opportunities to serve more students more conveniently. Comparable actions affect competitive advantage with other constituencies, as well.

The resource advantage model primarily focuses on the firm and its capacity to compete in the market. What firms compete for are exchanges with consumers. Models of consumer motivation and interaction with the market reveal much regarding the resources that will contribute to the advantage.

## 7.6. Theories of the Consumer

The question of who the consumer is for higher education is complex. The education experience is undertaken by the student, who is usually considered the consumer, but it may not be the student who selects the experience or the institution, and it may not be the student who pays for it. If society's needs are considered, the student may be only one of the actual beneficiaries of the education product. Parents and family represent another possible consumer, particularly as purchaser. They often constrain the choice of institution and substantially underwrite its costs, and current policy considers higher education expenses explicitly to be a family obligation. The family is not generally a significant beneficiary of the student's education, except sharing in whatever symbolic value it may provide. For state institutions, society at large substantially

underwrites much of the cost of the education experience and might be considered the consumer. Its interest is more generalized, but more utilitarian in that it wants an educated citizenry and an educated workforce of a certain magnitude and level of preparation.

The neoclassic view of the market relies on the ideal that mutual and open exchange will meet society's interests in providing the products it needs. The model hails the sovereignty of the consumer in determining what is produced and what it should cost. In fact, consumers participate in a web of transaction systems, including such elements as private exchanges, underground markets, and the open market (Firat, Dholakia, & Bagozzi, 1987). Within the open market, consumers are part of multiple markets, and are thought to be free to enter and leave them at will. In the neoclassic view, this gives them the voice and vote of the pocketbook regarding consuming needs. In reality, barriers exist of various kinds. Consumers may not have the economic resources to enter a market, access to distribution, ability to acquire complete information, the problem-solving capacity to compare and figure out the offerings, or time to shop, transact, and consume. In a market economy the interests of the consumer are thought to be articulated directly through the market interaction, which means that consumers with the most monetary resources have the most effective voices in the market environment. Production is most likely to be directed toward serving their needs for consumption, because they have the greatest capacity for exchanges due to their greater resources to exchange for value.

It is important to observe and allow for alternative communication and incentives to elicit responses from the market. Those with fewest monetary resources also have needs for consumption, some of which can be met in non-market exchanges through social networks. In other situations they may resort to using political channels rather than market interaction to communicate needs, resulting in various forms of government interaction in the market. Regulation may be used to modify some consumer barriers, for instance, or public agencies may be created to provide products in a way and at a price that the market does not, as in the case of public education at all levels. Such resolutions require that the consumer develop other forms of power than monetary, and assume a posture that is sometimes adversarial to the market and its participants.

In higher education, as with some other complex industries, communication through the market can be slow and highly ambiguous. In the market for student enrollments, the consumer and the

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product are not clearly identifiable. If the consumer is specified as the individual student, and if the student had open choice to select the specific education experiences she desired, degree programs undoubtedly would look quite different. Parents and society, as consumers, usually articulate much broader preferences. They want meaningful degrees, an assortment of skills, and distinguished achievement.

The market for students is highly segmented, suggesting that consumers are communicating their preferences. There are segments for a great many individual programs and degrees, for a wide range of institution sizes and types, and for levels of selectivity and prestige conferred upon graduates. American higher education is considered the most diverse in the world. This array of choices has occurred through entrepreneurial entry and identification of niche demand, and through consumer choices expressed through the market. Where consumers have lacked access to desired programs because of cost or other barriers, they have moved politically to have those programs implemented at some public cost, or passed laws requiring removal of particular barriers, such as prejudicial admissions and disability barriers.

Grant and contract funders engage in elaborate communication processes with institutions to articulate their interests, and their awarding behavior clearly communicates their expectations regarding the nature and qualities of services desired. Similarly, donors are expressive directly regarding their interests, and institutions that fail to listen are unlikely to do well with them.

Society is concerned for the number and qualifications of graduates, but the interaction with the community is more complex. Both parties assume both roles of producer and consumer, and often the community is unaware of this nature of relationship with an institution, or the idea that it may be participating in a market exchange. The institution must work harder to determine the value aspects of its offering in the exchange, because the community is less adept at revealing them.

The shaping of an offering on the part of the producer requires understanding of consumer needs, so that appropriate value may be offered. This calls upon the producer to consider the implications of the offering for the experience of the consumer.

### 7.6.1. The Experience of Consuming

One approach to the consumer is to examine the experience of consuming, rather than simply the decision to purchase (Holbrook, 1987). The idea of separating the concept of purchase decision from t he a ct o f c onsuming h as l ess r elevance, p erhaps, f or r etail o riented m arketers, b ut i t i s significant for service marketing and instructive in considering the consumer in higher education. Consumers are primarily engaged in consuming behavior rather than buying behavior, and consuming i s n ot a d ecision o r b rand c hoice a ctivity. T he b ehavior o f consuming f ocuses o n intangible factors rather than tangible ones, and represents investment of time, effort, and ability, as opposed to money. There are also complex emotional components in the experience of consuming. Finally, whereas decision behavior regarding product choice is conveniently bounded in time, the consuming behavior may not be. The product may have a durability property that is conceptually infinite.

For higher education this focus upon the consuming experience suggests several observations. The decision experience for the traditional student, including campus visits and other preparatory activities, may extend over the space of a y ear, but the consuming experience is substantially longer and more intensive. The investment involved for the consumer is monetary, to be sure, but higher education is consummately experiential. The consuming experience may be attached to objects and activities, which are tangible and directly observable phenomena, but the objective of the experience is quite intangible and barely measurable in many of its important dimensions. The real consuming activity is the engagement of some cognitive and affective change. The durability factor also suggests that the consuming behavior that is, the use of the specific education experience does not end with conferral of the diploma. It extends to some degree throughout one's entire life.

The consuming experience for grant and contract funders is more structurally bounded, but the experience for donors does extend beyond the decision to bestow. Donors receive recognition and certain benefits, many of them intangible, from their beneficence, and successful appeals to donors are known to give particular attention to donor experiences.

Real concerns for the consuming experience imply thorough knowledge and understanding of the consumer as an individual. This does not occur without effort by the firm, and it suggests the importance of the relationship itself between the producer and consumer.

## 7.6.2. Relationship Marketing

It is generally a given in marketing that it costs more to attract a new customer than to keep a returning one. This has placed new emphasis on the nature of the relationship between producer and consumer. The result is the concept of relationship marketing, which allows the producer to engender repeated exchanges with the same consumer by establishing a relationship of trust and communication, and to understand better how to shape the offering to suit consumer needs.

The goal of relationship marketing is to maintain consumer satisfaction over time. This can be defined as consumer-perceived value, which is the ratio between benefit and sacrifices as perceived by the consumer (Ravald & Gronroos, 1996). Total costs to the consumer may include indirect costs for such concerns as delayed delivery and distance to service, and psychological costs, which can include purchasing effort and aggravation, unsatisfactory interactions with the producer, and worry over producer commitment or behavior.

In some versions of the relationship marketing concept, the marketing focus is entirely on the relationship and not on the product (Gronroos, 1996). A firm would not find competing on the core business alone to be sufficient, and must compete on the total offering, of which the product itself is but one element. All elements of the offering are examined for their value-producing aspects, and those which do not provide consumer value are eliminated. Firms develop strategies to bring to bear those resources that maintain a continuing satisfactory relationship with the individual consumer.

A strong relationship with the consumer allows the producers to shape the benefits to meet consumer need, increasing the net value. Some producers will attempt to add value in order to increase price, which will not increase net value, or ratio of benefit to total cost. Consumers, however, prefer no price increase to increased benefits. That is particularly understandable when the value added is unrelated to consumer need, effectively yielding a lower net value to the consumer.

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Higher education fits the profile of producers who can benefit from the relationship marketing approach (Tomer, 1998). It has the ability to make long-term commitments to students, donors, grant funders, and communities. It seeks harmonious, non-opportunistic relationships, and it is a high service provider rather than primarily dependent upon transactions.

A relationship marketing approach focuses upon close study and interaction with the consumer over time in order to tailor the value in offerings to suit consumer need. Institutions that use such an approach to students, for example, should exhibit reduced exit transfers, greater completion rates, and increased long term student commitment. A relationship marketing approach to those communities or social groups from whom students are drawn primarily would seek to hone the education product offerings to meet their needs as a constituency. A relationship marketing approach to the community should serve to enhance the local environment in which the institution operates by helping it become more responsive to community needs. It is clearly advantageous to maintain strong relationships that lead to repeated exchanges with donors and grant and contract funders. As a consumer, the institution is subject to relationships with suppliers, and welcomes relationships that allow it to shape the offerings more to its particular needs. The latter relationship typically is more highly structured, particularly in state institutions, but it does not preclude ongoing relationships with suppliers that are mutually beneficial.

The flexibility for students/consumers to select alternative institutions/producers has increased in recent years because of program standardization and variation in the pool of target students. In effect, each term's enrollment represents a return purchase by, or exchange with, the student. The core product, when conceived as specific courses of instruction, has been made entirely modular and the modules, under pressure from a number of sources, practically have been made interchangeable. Students may transport easily course credits from one institution to another to fulfill common requirements. It is true that degree programs do exact some penalties for moving around, and the closer to the degree, the more difficult to move, but student mobility has increased, nevertheless.

In terms of relationship marketing, institutions concerned about the retention issue would acquire deep knowledge regarding consumer needs through investment in an interactive relationship with the target student/consumer and her socio-cultural context. They would then examine the total offering of the education experience for its composition of consumer-perceived value. Benefit

elements would be enhanced as possible, and sacrifice elements would be minimized. Students often encounter unanticipated or indirect costs, and experience many psychological costs above and beyond the academic coursework. They frequently run afoul bureaucratic systems and unhelpful staff, for instance. A relationship marketing approach to the source cultures of students regarding tuition and fee increases in recent years might have mitigated the image of higher education as greedy and insensitive. The approach would have tried to find ways of adding value that would improve the net consumer-perceived value to the student and her family, and of better communicating the constraints upon the institution,

## 7.7. Concluding Observations.

The picture of higher education that emerges through the marketing lens is complex and problematic. Four large areas of discussion are suggested: the complexity of the higher education product, the complicated social construction of higher education institutions, the operation of financial performance in higher education, and an approach to the market that seeks consumers for an existing offer.

(a) The products of higher education are very problematic.

In a general sense, higher education produces education experiences for its students, and students with certain educational preparation for the larger society. In a specific sense, the producer is ambiguous. The student is simultaneously a consumer of the education experience, a resource for the product provided to society and for the development of other students, and a producer of her own learning. In a literal sense, higher education produces courses of instruction for students. All other experiences, including all support services, are additions of value intended to enhance the consumer's ability to acquire the value of the courses of instruction. Assessment of the value of the education product, and of the resources that contribute to the value, is therefore very complicated.

(b) As an organized behavior system, higher education is particularly complex, which complicates its market response.

An institution's mission goals may be defined by control authorities, but its operating goals are more often determined by internal coalitions that are highly organized. These coalitions attend to

different constituencies, and the ability of these coalitions to collaborate in shaping market offerings is limited. Further, the time frame for responsiveness is also protracted, when compared to profit-oriented enterprises.

Throughout most of higher education, the coalition most influential in shaping the education offering, the faculty, maintains very limited relationships with the target market consumers, and is unreceptive to guidance from any who do maintain close relationships. This is not to say that no relationship exists, nor that none is attempted. Faculty look to the professions to provide the criteria for the education offering and consider the profession to be the constituency they serve. It is one constituency to be served by the program, a component of the society constituency, but the interests of the student, who controls the actual resource flow more directly, often are not taken seriously. Further, the authority of faculty is institutionalized in a powerful shared governance structure, which serves very well to isolate decisions about the education offering from influence of investment appeal. Much of this can be attributed to short term self interest, but much is also the result of profound convictions about the appropriate nature of the education experience. In higher education, as in other business, sober judgments must be made about the shape of the offering in terms of the strategic positioning of the institution and the appropriate fit of its core competencies and unique resources. The education offering should not easily shift to whatever is currently hot (Kotler & Fox, 1995).

The independence of the faculty and the complex nature of their work also makes it very difficult to add value through changes in practices, and often requires significant investment of resources. Where change implementation in the core product in other industries may be a matter of weeks or months, in higher education it sometimes can be generational. For-profit industry also can invest heavily in retooling, retraining, restructuring, or new facilities when it sees that there will be at least compensatory return. The lack of comparable evident connections makes it more difficult to commit the kinds of resource allocation needed for change in higher education.

(c) The operation of financial performance and its interconnection with resources is a fundamental idea in higher education, and it must be thoroughly understood.

This study has proposed that competitive standing be measured by financial performance as capacity to invest in resources. Where profit-motivated firms examine the monetary value that

can be extracted from the enterprise, this proposition focuses on how much can be invested. What remains unclear is an understanding of limits and how capacity to invest relates to competitive advantage.

The profit from an organization is limited by its ability to attract favorable exchanges and return on investment. In order to achieve the highest profit, defined as income in excess of production costs, investment in resources is limited to the threshold that will support a market offering that can generate optimally productive exchanges. The most successful competitors will be those who can extract the most profit as income in excess of resources and production costs. In other words, superior financial performance.

If financial performance is measured by capacity to invest in resources, there is no theoretical limit on how much can be invested. However, it must attract the investment to allocate to those resources, and that represents the limiting factor and the motivation for competition. The institution must shape a market offering that attracts investment, which comes from tuitions and fees, grants and contracts, donors, state funding, and other activities. These funding authorities are the consumers, and they provide investment at the level they believe the institution is providing a product that suits their value needs. In other words, the open market does operate on the basis of a traditional exchange of values. The difference from for-profit enterprises is that, because profit is not an objective, there is no reason to extract value in excess of costs, and all revenue is considered invested.

Recent reductions of investment by state funders suggest that the value of the product provided by higher education institutions has less value to the society at large than the costs, as represented by its investment. It may continue to have value for the individual student or grants funders, but the value offering to society at large is insufficient to continue to attract the same level of investment. The judgment may concern directly the education product, but it also may apply to reputation and other value components.

The operation of this interaction can help analyze policy. For example, calls to raise admissions standards have complex implications. More stringent admissions standards would reduce the number of students entering, although perhaps not the number completing, reducing the draw on resources allocated to serve students not completing. Reduction in entering students also reduces

investment of tuitions by those students. The institution has two options, to accept contraction and reduce its investment in resources, or to compete more aggressively for the smaller pool of more highly qualified students. In order to compete for tuition investment by those students, who have already developed orientations toward other producers/institutions, the institution must enhance the value of its offering, and realign resource allocation to support it instead of students who are underprepared. A thorough understanding of the target consumer is required, in order to add desirable value, which suggests the importance of a relationship marketing approach. Then, the institution must behave entrepreneurially and disrupt any present equilibrium and established patterns of market behavior while creating new bonds with qualified students. As noted above, these actions are not simple matters in higher education institutions.

(d) There is a proactive role that institutions can take, which is not explicitly considered in discussion of these theories.

The emphasis in this study has been on understanding consumer needs and adapting to them, but it is possible to seek out consumers who need an existing product. Kotler and Fox (1995) provide an explicit guide for doing this. An expansion of this is to consider the responsibility each institution may have to proselytize for its mission, and for the values of higher education.

Institutions individually and collectively might pursue a social marketing approach (Kotler & Roberto, 1989). Social marketing is the practice of using marketing techniques to persuade people to undertake some socially constructive change. The objectives may include simply providing public information and public education, persuading the maximum number of people to take a specific action, inducing people to change behavior for their own good, or attempting to alter deeply felt beliefs and values (pp. 18,19). Institutional missions embody certain commitments and principles concerning higher education itself, and to the extent that institutions believe in their missions, it is appropriate to persuade others of the value of that belief (Many consider inducing others to share the belief would violate principles of intellectual freedom). Higher education might serve long-term interests if it can successfully persuade the largest number of people to value, seek, and support certain kinds of higher education experiences.

(e) A conscious market approach for higher education institutions raises a several other questions worthy of consideration.

If an institution is in a market relationship with the community, there are implications for institutional behavior with regard to competition. The institution provides a market offering to the community in the form of services, amenities, and prestige, among other things, in return for accommodation and support. How aggressively should the institution compete with alternative providers of value products that meet some of the same needs for the community? Should an institution seek to create and maintain a community dependency in order to increase the potential cost to the community of a lack of agreement on matters of concern to the institution?

The focus of this discussion has been on the traditional student, for whom a broad range of desirable values can be offered. There is some evidence that older students carry a different market orientation. First, those with clear education objectives have a much narrower range of value needs. Second, they more likely will have personal resources to invest, but they will be more demanding regarding the offering, and more critical of its value in relation to their investment. Third, the exchange will tend to be more restricted, and there will be less supporting investment from community and society to fulfill the needs of older students. The benefit is seen as being greater specifically for the student than for society at large. For these reasons, appeals for exchanges with this constituency may require a very close understanding of its specific value needs.

These are a few of the observations and questions that can be drawn from an examination of higher education through the theoretical perspectives of marketing. It is reasonable to conclude that institutions might find ways to improve internal practices and market interactions by examining their own markets and internal operations through these perspectives.

## 7.8. Summary

This study has argued that higher education exists in a market environment in at least six respects. It serves students, it seeks to attract donations, it serves grant and contract funders, it seeks approval and general support from the community, fiscal and general support from society, and it conducts exchanges with suppliers and personnel. These interactions clearly place higher education institutions in a variety of markets.

This study looked at general theories of marketing and exchange theory, and described the nature of the exchanges with these six constituencies. Theories of the firm were explored, concluding

that higher education is best described as a constituency based, resource dependent, social organization. In considering market paradigms, the basis of competition in higher education was described by the resource advantage model, which specifies the objective as superior financial performance. This study argued that financial performance in higher education is indicated by an institution's capacity to invest in resources, rather than profit-producing ability. In examining theories of the consumer, this study argued that a relationship marketing approach to the consumer would yield the best information upon which to shape the market offer and to engender repeat exchanges. The concluding observations noted particular concern for the ambiguity of the matter produced by higher education, the functioning of financial performance operationalized as capacity to invest enabled by capacity to attract investment, the implications of deeply invested internal coalitions for market response in higher education, the possibility of an approach that seeks consumers for an existing offer and the use of a social marketing approach, and questions concerning competitive posture in the community and distinctive aspects of the market for non-traditional students.

Further scholarship might pursue a number of propositions and implications suggested here. Thorough analysis of matters of value offered by higher education for the purpose of parsing the value components would be extremely helpful in determining resource investment. Kotler (Kotler & Fox, 1995) provides some help in his applied approach to marketing higher education but primarily focuses on one constituency. The concept of financial performance as capacity to invest in resources would benefit greatly from some empirical support. Further elaboration of the constituencies served by higher education institutions, and their interaction with various internal coalitions would help devise better processes for shaping market offerings. The complexity of the situation is suggested by the idea that the education offering directly serves multiple constituencies, at least including the student and the profession. A fuller explication of the interaction with the community seems warranted, because the matters of exchange should be more thoughtfully considered by both parties. Qualitative researchers should examine institutions that are using social marketing approaches to assess effectiveness and capture best practice.

Institutions of higher education face increasing pressures from many sources. The value of the education product is being questioned, and investment by society is being reduced to the level that accords to consumer-perceived value. It may be that the consumer is tiring of accepting an

offering from traditional institutions that no longer carries the perceived value that merits the investment. It may be a problem with the core product, or it may concern other values or the absence of other values associated with it. It may be also that higher education has failed to persuade the culture of its own value as it understands itself. Meanwhile, entrepreneurs attempt to segment the market with carefully developed offerings, and leapfrog the traditional institutions' advantage of tacit and interconnected resources by investing in technology. To understand and respond in order to survive the gaining competition, a market orientation will be critical for institutions of higher education.

# CHAPTER 8:

## <u>Quality of Research & Education Strategy</u>

### 8.1. National system for quality education:

The team of national system for quality assessment, for both education and research should be deployed in Bangladesh. This team may concern to the certain general requirements for the quality assurance process such as:
- the quality assessment reviews are periodic
- the quality reports are public
- the recommendation in quality reports are to be implemented.


For the assessment of an education program, a faculty can compile a self-evaluation report, which is a performance report on the contents, management and academic level of the program. A review committee of independent external experts can visit the faculty to gain in-situ information about the program and the management processes. The committee reviews staff and students; it also can evaluate the level of exams and final thesis of the students. The report must be produced by the committee present the findings of the committee, its opinion about the education program and recommendations to improve certain parts of the program. This procedure of external quality assessment of study programs could be monitored by the Inspectorate of Higher Education, which could be established by the Ministry of Education, Culture and Science. The Inspectorate should advise the Ministry on the follow-up of the assessment and should visit the institutions after the certain period of the assessment, in order to investigate which activities have been taken in response to the assessment.

The quality of research can be assessed on a discipline-by-discipline basis at research program level. A review should be conducted in each discipline, which involves the collection of a large amount of factual information about a particular research program, such as its mission and goals, key publications over the past five years, research capacity per program, etc. The report produced by this committee presents the findings of the committee, its opinion about the research program, recommendations to improve the program, and indicators for the level of the programs

in terms of scientific quality, productivity, scientific relevance and feasibility. For each criterion the indicator may range from 1 to 5. A score of 5 represents 'excellent', 4 denotes 'good', 3 'satisfactory', 2 'poor' and 1 very poor.

(www.essex.ac.uk/guest/auanetherlands/Documents/TUD%20-%20Quality%20MAN, Nov 12,98)

## 8.2 Internal system for education quality management:

The main elements of every university's internal quality management system for education are listed below:

- International accreditation.
- Program Director.
- Education quality management advisory committee.
- Yearly quality reports.
- Evaluation tools.

## 8.2.1 International Accreditation:

To achieve quality in an international dimension, and to be recognized internationally as a top-level technical or business school, a national quality assessment is not enough for any university; the quality of the university should be measured relative to international standards. Therefore, every private university of Bangladesh should have a plan to evaluate the education, research and management performance of all faculties periodically by the internationally qualified and authoritative body. American Accreditation Board for Engineering and Technology ABET), this is the organization that is responsible for university engineering program evaluation and accreditation in the USA. It is important to realize that accreditation is not equivalent to a genuine quality assessment procedure. ABET accreditation is a system which assures that graduates of an accredited program are prepared adequately to enter and continue the practice of engineering. ABET issues a statement called 'substantial equivalence', including that the program meets a minimum set of criteria.

(www.essex.ac.nk/guest/auanetherlands/Documents/TUD%20-%20Quality%20MAN, Nov 12,98)

### 8.2.2 Program Director:

A clear allocation of responsibilities s crucial to the organization of quality management procedures. Careful planning and through assessment need to be accompanied by effective measures, such as improvements, correction of shortcomings and promotion of excellence. This is a n important r eason t o n eed an 'education p rogram d irector' i n e very p rivate u niversity o f Bangladesh. His or her most important task should be monitor the coherence and efficiency of the education program(s); coherence in structure and coherence in content. When necessary, the program director is authorized to intervene in the organization of the study program in order to remedy bottle-necks. He or she is the advisor to the dean on the permanent improvement of the quality of the curricula and educational organization, and is responsible for the implementation of the improvements. To be able to execute these tasks, a program director should be an authoritative professor or an authoritative specialist on education and teaching, who largely operates on the basis of his expertise in the field of the study and as a teacher. The existence of an education program director should be mandatory for all private universities of Bangladesh in order to maintain quality education.

(www.essex.ac.uk/guest/auanetherlands/Documents/TUD%20-%20Quality%20MAN,Nov 12,98)

### 8.2.3 Education Quality Management Advisory Committee:

The private universities of Bangladesh should establish the Education Quality Management Advisory Committee as a university-wide permanent committee for advising the Board on matters related to quality assurance in education. The main task of the committee, which consists of professors, students and external members, to be monitor the initiatives taken by the faculties to maintain and improve internal education quality assurance mechanisms. It aims at a managerial embedding of internal quality assurance procedures and at a close linkage between internal and external quality assurance and feedback mechanisms. To do this, the committee needs to seek an open and strong interaction with the faculty organizations. The committee may advocates a long-term inductive approach, through bottom-up information gathering and aggregation rather than a top-down defining approach. The committee should work on the development of a basic set of quality standards and procedures on faculty quality management systems, by building a consistent image of the quality assurance systems at the faculties. The

committee also can suggest to all faculties to prepare 'education policy plan'. This plan presents a detailed overview of what the faculties have done to implement recommendations of the external assessment committees, what they plan to do in the future and what educational improvements they hope to achieve. The plan will be a useful instrument in defining goals, policy, targets and projects for the faculties. Also, university can have separate committee assessing the internal quality for postgraduate professional courses and for advanced design programs (www.essex.ac.uk/guest/auanetherlands/Documents/TUD%20-%20Quality%20MAN, Nov 12,98)

### 8.2.4 Yearly Quality Report:

Private university should introduce the concept of yearly quality report, in which each faculty may have the opportunity to present a state-of-the-art picture on its education and research programs. These reports should be based upon the recommendations of the external assessment committee and the education policy plans. Every two years these reports will be assessed by an external group of experts, which consists of representatives from the academia, industry, business and government. The yearly report quality report will be an important item for the yearly managerial consultations between the Board and the deans of the faculties.

### 8.2.5 Evaluation Tools:

Quality management fully relies on the timely supply of good information. This aspect is even critical for the organization of internal quality management. Faculties need more direct information on the quality of their courses and teachers. To response this, concept of course evaluation should be introduced. In this concept the students are asked, by means of a standard questionnaire, what they think about various aspects of a course in which they have participated. This central system of course evaluation supplements several evaluation instruments which should develop by individual faculties. Two of these instruments are worth to mention.

- Direct student feedback on each course, by means of a designated group of students to observe both teacher and class during the course and to report back their findings to the teacher.

- Publication of a series of booklets, which are produced annually by students and which contain the students' opinion about some aspects of a limited number of courses offered by the university.

Continuous quality management is essential for improvement of the quality and for the promotion of the idea. In this respect, the program director and the education management advisory committee can play crucial roles.

### 8.3 Internal System for Research Quality Management:

This is partly due to the fact that the research programs are assessed by external committees in detail and that various aspects of the program are scored from 1 to 5. These statistics give us already a clear indication whether the university is on the right track to achieve their mission. Also, university can systematically request each faculty to submit a report six months after an external quality assessment has taken place, in which the faculty should indicate how the recommendations will be acted upon and which consequences will be given to the individual research groups. The report which could be requested when the assessment results were considered to be relatively poor.

# CHAPTER 9

# ISO 9000 in Training and Higher Education:

### 9.1. ISO and its definition:

The International Organization for Standardization (ISO) was founded in 1946 in Geneva, Switzerland, where it is still based. Its mandate is to promote the development of international standards to facilitate the exchange of goods and services worldwide. ISO is composed of more than 90 member countries.

There are various reasons for implementing a quality system that conforms to an ISO standard. The primary reason is that customers or marketing are suggesting or demanding compliance to a quality system. Other reasons are needed improvement in processes or system and a desire for global deployment of products and services. Internal benefits that can be received from developing and implementing a well-documented quality system can far outweigh the external pressures. Most organizations have found that the system has led to

(a) Fewer on-site audits by customers.

(b) Increased market share.

(c) Improved quality, both internally and externally (fewer complaints).

(d) Improved product and services quality levels from suppliers.

(e) Creates awareness of quality by employees.

(f) A documented formal system.

(g) Reduced operating costs. *(Total Quality Management, D.H. Besterfield, 2ⁿᵈ Edition, pp 235 –236)*

There are prevailing ideas, like: "Education is not a product". "ISO 9000 is for industries, not relevant to education". "Education is not business, then why do we need ISO 9000?" But experience, current situation and examples show that academic institutes are facing competitions and uncertainty all over the world. That's why, many universities around the world proved that ISO 9000 is also for education, and they achieved competitive gains through ISO 9000 certification. Analogy can be drawn between a manufacturing system and an educational

institute, in order to facilitate ISO 9000 QMS implementation. Students flow through different stages of development, similar to products flow through different work stations.

In many other cases, students have been termed as raw materials (input), product-in-process (while going through four years of learning) and finished product (output).

When the students appear for admission examination (test or interview), it is similar to incoming material inspection of ISO 9000 (Clause # 8.3). If the students qualify, they are allowed to enroll, similar to the raw materials' acceptance if they pass the incoming inspection. That means, more than 12 clause are applicable to university for ISO 9000 certification. Recently, it has found that all twenty elements can be interpreted for university (*ISO 9000 is not for Production Industries Only: Configuration Requirements For Hospitals, Universities, Computer Software Development, Food (HACCP), other Standards and for Integrated Information Technology, Dr. M. Ahsan Akhtar Hasin, 2ⁿᵈ International Conference and 7ᵗʰ Annual Paper Meet, 15ᵗʰ February, 2002, IEB Chittagong Center, Chittagong, pp 26 –27*)

## 9.2. The Interrelationships between Quality Assurance and ISO 9000:

To understand the potential impact of ISO 9000 on higher education, it is first necessary to focus on the interrelationship that exists between quality assurance (QA) and ISO 9000. The approach that manufacturing organizations have taken to achieve the quality edge has traditionally been QA. Over the past ten years, QA in the United States has evolved into total quality. Increasingly, training and education organizations are looking to use the same route to capture markets. Total quality involves a systematic approach to identifying market needs and honing working methods to meet those needs. Organizations can develop and implement their own QA and total quality management (TQM) programs, but many prefer to adapt a recognized standard and to seek external approval for their system. In the UK, BS 5750 is the standard for QA and total quality system. Internationally, BS 5750 is known as ISO 9000. The two standards are identical, except in name.

Many training and education organizations in Europe have begun to explore how they can adopt this standard; a few attained the coveted British Standards Institute (BSI) "kitemark'(certification symbol) . *Freeman, Richard (1992). Quality Assurance in Training and Education, London: Kogan Page Limited, p.10.*

The main reason why so few organizations have achieved certification is the fact that BS 5750/ISO9000 was initially designed for manufacturing industries. Its language and approach are alien to training and education. However, its underlying principles, which concentrate on meeting customer needs, are fully applicable in the new training and education marketplace of the global village. Somehow, then, ISO 9000 must be made applicable to training and education.

The ISO 9000 standards can be adapted for the benefit of teachers and students, without compromising the professional standards which teachers have developed over many years. Many of the consultants on ISO 9000 and TQM, whose backgrounds are in industry, are inadvertently persuading trainers and educators to apply the standard in a manner which is detrimental to good teaching and, hence, to students. (*Freeman, Richard (1992). Quality Assurance in Training and Education, London: Kogan Page Limited, p.10).*

ISO 9000 certification could become a requirement for any university wanting to do business in the international marketplace, even though at this time that notion seems to be a bit of a stretch. While the strains of this stretching of BS 5750/ISO 9000 show all too clearly, it remains a very general set of principles for good management. As such, applying the principles to the teaching/learning process is often difficult. For example, the product of teaching is both the quality of what the student experiences (the teaching) and the outcome (what has been learned). It is easy to monitor the outcome, but very difficult for a quality measurement system to monitor the process. Of the five standards contained in ISO 9000, all have direct application. *Sink, Scott(1991). "The Role of Measurement in World Class Quality." Industrial Engineering, June 1991.*

## 9.3. Getting a Feel for ISO 9000 Integration

The five separate standards in the ISO 9000 series are not easy to relate to training and higher education. Indeed, some have almost no application in teaching and learning. The following are

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the ISO 9000 modules that are of particular importance to training and education ( *Freeman, Richard 1992. Quality Assurance in Training and Education. London. Kogan Page Limited, pp 12-13*). Four out of five standard have been described briefly as follows:

## 9.4 Quality Management System

### 9.4.1 Documented Quality System

### 9.4.2 Document Control System

### 9.4.3 Records Control System

## 9.5 Management Responsibility

### 9.5.1 Management Responsibility

- Communicate the importance of meeting requirements
- Establish the quality policy
- Establish quality objectives
- Conduct management review meeting
- Provide adequate resources

### 9.5.2 Customer Focus

- Understand and meet customer(student) requirements.
- Enhance customer satisfaction

### 9.5.3 Quality Policy

- Appropriate to the purpose of the organization
- Includes a commitment to meet requirements and improve quality system
- Helps establish and review quality objectives
- Is communicated and understood through the organization
- Is reviewed and evolves to remain suitable

### 9.5.4 Planning

\* Establish Quality Objectives

- Objectives are established for all relevant functions and levels.
- Plan and develop processes needed to create products and deliver service.
- Plan these processes as part of the quality management system. ( *The Standard Illustrations, ISO 9001, Year 2000 Edition. Leland R. Beaumont, page-4)*

* Responsibility, Authority and Communication

- Responsibility and authority is defined for people whose work affects product and service quality.
- This responsibility and authority is communicated within the organization.

Here, organ-gram and job responsibilities must be clearly identified.

## 9.5.5 Management Review

The final management role is the quality review, which is further emphasized by the self-

adjusting nature of total quality systems. The management review is the engine for that process.

At its simplest, the review needs to decide:

What information is needed to be sufficiently certain that the quality policy is being implemented?

What information is needed to decide whether the policy needs amendment?

How frequently these data need to be collected?

Two types of data are important to assess the overall health of the university system. These are:

Operational data : Course completion rates, awards rates, absentee rates, repeat business rates .
Total quality system data: Percentage of audits completed on time.

The management review should contain a sensible balance between the two. Enough data should

be provided to assure management that nothing critical could be going wrong, but no more.

## 9.6 Resource Management

### 9.6.1 Provide Resources

- To implement and maintain the quality management system
- To continually improve effectiveness of the quality management system
- To enhance student satisfaction by meeting student requirement.

### 9.6.2 Provide Competent People

This is another section where training and education do not differ from manufacturing or service.
ISO 9000 requires that for those *activities that affect quality*, only properly trained staff be used.
This probably includes all staff, because training and education are only deliverable by skilled

staff. Therefore, for staff in each area or function deemed critical. a procedure must be established to:

- Identify the training needs of the staff
- Provide the training
- Keep records of the training

This does not mean that extensive skills tests will need to be conducted. In training and education, most jobs are well defined. with clearly established standards or minimum qualifications. For example, a college may require that all lecturers have:

- A first degree or professional qualification in their subjects
- A further education teaching certificate

If this is what is required for the job of lecturer, then records for each lecturer must show that he or she has sufficient qualifications to meet the requirements.

### 9.6.3 Infrastructure

Infrastructure in higher education should include:

- Building, workspace, classrooms, auditorium. library. computer lab, science labs etc.
- Process equipment, including hardware and software
- Supporting services. such as transport or communication, as needed to conform to product requirements.

### 9.6.4 Work Environment

Determine and mange the work environment needed to meet product requirements or University Grant Commission (UGC) requirements.

### 9.7 Planning Production Processes

- Plan and develop processes needed to create products and deliver service.
- Plan these processes as part of the quality management system.
- Verification, validation. monitoring, inspection. and test activities.
- Acceptance criteria
- Records of conformity

### 9.7.1 **Customer Relationship Processes.**

<u>Review Product (Programs) Requirements.</u>

- Program requirements are defined.
- Contract or order changes are understood and resolved.
- The institution has the ability to meet the requirements.


<u>Establish Customer (Student) Communication.</u>

Establish effective communications with the customer regarding:

- Product (Program) information.
- Inquiries, contracts, order handling, etc.
- Student feedback and complaints.


### 9.7.2 **Design Control System**

In training and higher education, the design process is course planning, including the preplanning necessary for teaching the course. All trainers and teachers would openly declare their personal commitment to promising a quality service. Nowhere is that assurance more important than in the design stage. If an organization plans the wrong course or develops the wrong course content, whatever the quality of the delivery, the course will still be wrong. The main purpose of the design system is to take the identified needs of the identified customer and develop a way of meeting them. Anything, which will be used to meet the customer's needs and must be designed is covered by this section. This could include:

- Curriculum plans
- Course plans
- Handouts
- Learning materials
- Assessment materials
- Work placements

ISO 9000 identifies five aspects of design control:

- Design and development planning – deciding who does what in the design system
- Design input – making sure the designers know what the customer wants
- Design output – being clear about the final form the plans should take
- Design verification – checking that the design solution is acceptable to the customer
- Design changes --- having a system to ensure that any changes to the design are approved by the appropriate people

### 9.7.3  Purchasing System

Assume that part-time instructors are considered "staff" rather than "suppliers", only a small range of items are covered in this module.

- Learning materials
- Consultants
- External examiners and assessors
- Awarding body services

For each of the above, the organization needs to consider:

- The standard of performance required
- The selection process
- The records the supplier (organization) is to keep

The resulting list of approved suppliers

### 9.7.4  Process Control

The key to this module is to view the "teaching and learning process" from the customer's point of view. To apply this section to training and education, what constitutes process must first be identified. The heart of process is everything normally referred to as teaching, training, and assessment. This comprises a wide range of activities, including:

- Teaching (the presentation of material)
- Tutoring (assisting individual students with learning difficulties)
- Feedback to the student
- Monitoring student progress

- Adjusting the course to individual progress and needs (or moving the student on to some other course)
- Assessment of the student
- Maintaining suitable records of progress

In other words, anything which teachers are expected to do during the teaching process and which is critical to quality is covered by process control. In this context, a process control list for training and education would have to cover:

- Standard for staff selection, e.g., the required qualifications
- How the continuing relevance of staff skills is monitored
- How staff development needs are met

Additionally, it must be determined which of the following programs need control:

- Teaching methods
- Tutoring methods
- How feedback is given to students
- How student progress is monitored
- How checks are made to ensure that student needs are still being met
- How students are assessed
- Which student records are kept

### 9.7.5    Validate Special Processes

Identify all "special processes" – where deficiencies become apparent only after delivery or use. In the university environment, this sub clause is not suitably applicable.

### 9.7.6    Identify Product Throughout Production

This sub clause is related with student identification number through the entire educational process. If proper identification is designed, in any stage (such as Freshman, Sophomore, Junior, and Senior) of education student (product) will be easily identified.

### 9.7.7  Protect Customer-Owned Property

The two general areas where this may apply are the supply of materials and the supply of equipment. But in university settings, it could be any credential of students such as their certificates, mark sheets, financial authorization etc. Basically, the following tasks may apply:

- Ensuring that the correct items have been supplied on time and in usable condition
- Storing and retrieving items safely
- Reporting lost or damaged goods

### 9.8  Measure, Understand and Improve.

### 9.8.1 Monitor and Measure

- Measure Customer (Student) Satisfaction.
- Conduct Internal Audits and measure the improvement.
- Monitor and Measure Quality Management Processes.

### 9.8.2 Internal Audit System

The quality policy and the procedures can be well prepared, but this does not guarantee that they will be followed. Auditing is the means by which the organization verifies that the procedures have been implemented. Regular checks (audits) are made in a specific and systematic manner to identify whether or not adherence to the procedures exists. This inevitably involves the potentially threatening process of interviewing the people doing the work, who can easily assume that they are being inspected. However, this is not the case at all. This impression has to be regularly dispelled by reminding everyone involved that it is the procedure that is being audited, not the person.

The entire management review system and the self-improvement nature of total quality systems demand that the system be continually checked to determine whether it is performing according to plan. This checking process is called *auditing*, because the methods it uses are very similar to those in financial auditing.

### 9.8.3 Monitoring and Measuring Products

- Retain evidence the students meets the acceptance criteria of admission, minimum score for letter grade.
- Retain evidence of graduation requirements, Dean's List etc.
- Identify and maintain monitoring and measurement status such as students' academic status – Freshman, Sophomore, Junior, Senior.
- Complete all testing and verification before releasing the degree to students.
- Record who authorized release of the degree to student.

### 9.8.4 Handling Nonconforming Product

This is a rather difficult area to define in ISO 9000 terms, except if students are classified as "products", in which case students who have failed tests and assessments would be included. Other items could include:

- Damaged or out-date books
- Teaching material that does not conform to the syllabus
- Incorrect assessment items such as obsolete grading system.
- Graduation unsuccessful percentage (with in five years education period)

ISO 9000 requires that the university take the appropriate steps to ensure that such items are not used for teaching, such as marking them out of date.

### 9.8.5 Data Analysis

This sub clause is related with the followings:

- Students satisfaction data
- Product conformance data that means graduating students conformance data according to degree requirements.
- Product (Student) trend data such as graduation trend of different programs.
- Improvement action such as thing to do.

### 9.8.6 Corrective and Preventive Action

The corrective action process is the means through which a non-compliance is corrected. ISO 9000 requires a quality system to have a systematic method for corrective action. Because there

is no guarantee that the corrective action will have been taken at the end of the agreed upon period, the quality system must have a means of acting on failure to implement corrective action. This would normally involve the auditor reporting the omission to someone at a higher level in the management chain. Corrective actions may be warranted in following cases:

- Service/process nonconformity if observed or detected
- Non-conformity detected during audits, process reviews, monitoring activities, etc.
- On customer (student) complaints
- Any other condition

### 9.8.7 Continual Improvement

In higher education, continuous improvement can be measured on the following factors:

- Student satisfaction survey
- Student graduation rate within 5 years period
- Student characteristics and trends
- Academic process characteristics and trends
- Students' feedback and students' complaints.
- Nonconforming product and its controlling and recording mechanism.
- UGC's yearly ranking system and improvement-suggestions.

### 9.9 ISO 9000 QA approach:

The ISO 9000 QA approach to management is very similar to the documented method, but three essential extras are added. ( *Spizizen, Gray (1992). "The ISO 9000 Standards· Creating a level Playing Field for International Quality". National Productivity Review, pp.331-346, Summer 1992).*

- A method to monitor how adherence to the system
- A method for correcting mistakes
- A method for changing the system if it has become obsolete

This error-correcting aspect of ISO 9000 is very important. Mistakes and failures will occur, and the ISO 9000 based quality system recognizes that possibility and prepares for it. Three causes of failure are recognized:

- Human error

- Failure of input materials such as quality of students.

- Obsolescence of the existing method.

The quality system carefully distinguishes among these causes. In the first case, the error or omission is corrected; in the second, the material method is amended. ISO is, therefore, both a self-correcting and a learning system. It changes to reflect changing needs. It is known as a QA rather than a traditional quality control type system.

## 9.10  Implementation of ISO 9000 in Higher Education:

### 9.10.1 Senior Management Commitment:

The most important step in implementing a quality system that will meet or exceed an ISO 9000 standard is to acquire the full support of upper management. The chief executive officer (CEO) must be willing to commit the resources necessary to achieve certification.

### 9.10.2 Appoint the Management Representative:

This person is responsible for coordinating the implementation and maintenance of the quality system and is the contact person for all parties involved in the process both internal and external. It is important to note that the quality manager dose not have to be the representative. The implementation of the quality system should involve everyone in the organization. The standard requires the management representative be a person who is able to ensure that the quality system is effectively implemented and maintained irrespective of other responsibilities.

### 9.10.3  Awareness:

The process is going to affect every member of the organization as well as require their input. It stands to reason that every one should understand the quality system. They should know how it will affect day-to-day operations and the potential benefits.

### 9.10.4  Appoint an Implementation Team:

After everyone has been informed of the organization's intentions to develop the quality system, an implementation team should be assembled. This team should be drawn from all levels and areas of the organization.

### 9.10.5 Training:

The implementation team, supervisors, and internal audit team should be trained. This activity can be accomplished by sending team leaders for training and having them train the other team members or by bringing the training in-house for all team members through a one or two-day seminar.

### 9.10.6 Time Schedule:

This activity develops a time schedule for the implementation and registration of the system. This time frame will vary, depending on the size and type of organization and the extent of its existing quality system. Most organizations can complete the entire process in less than 1.5 years.

### 9.10.7 Select Element Owners:

The implementation team selects owners for each of the system elements. Many of these owners will be members of the implementation team. Owners may be assigned more than one element. Each owner has the option of selecting a team to assist in the process.

### 9.10.8 Review the Present System:

Perform a review of the present quality system. Copies of all the quality manuals, procedures, work instructions, and forms presently in use are obtained. These documents are sorted into the system elements to determine what is available and what is needed to complete the system. This activity is a gap analysis and can be performed by the element owners and their teams or by an external consultant.

### 9.10.9 Write the Document:

Prepare written quality policy and procedure manuals – they can be combined into one document. Write appropriate work instructions to maintain the quality of specific functions. This process should involve every employee, because the best person to write a work instruction is the one who performs the job on a regular basis.

### 9.10.10 Install the New System:

Integrate the policies, and work instructions into the day-to-day workings of the organization and document what is being done. It is not necessary for all elements to be implemented at the same time.

### 9.10.11 Internal Audit:

Conduct an internal audit of the quality system. This step is necessary to ensure that the system is working effectively and to provide management with information for the comprehensive management review. Minor corrections to the system are made as they occur.

### 9.10.12 Management Review:

Conduct a management review. The management review is used to determine the effectiveness of the system in achieving the stated quality goals. The system is revised as needed.

### 9.10.13 Pre-assessment:

This step is optional. If a good job has been done on the previous steps, pre-assessment is not necessary.

### 9.10.14 Registration:

This step requires three parts: choosing a registrar, submitting an application, and conducting the registrar's system audit. Considerations in choosing a registrar include cost, lead time, your customer's acceptance of the registrar, the registrar's accreditation, and familiarity with your industry. The application for registration should also include supplying the registrar with the policy and procedure manuals for their review.

*(Besterfield, Dale H., Total Quality Management, Second Edition, pp 239 – 241)*

### 9.11  Procedures ( in Higher Education)

Practically, an organization identifies the functions or tasks where performance critically affects the service as perceived by the users. Meanwhile, an University might decide that its critical functions are:

- Enrollment and counseling;
- Curriculum planning;
- Assessment;

The University of South Asia's assessment procedure is based on final examination, assignments, mid-term exam and classroom participation. In campus-based instruction,

classroom evaluation including class tests and assignments will cover 60% of total marks and the remaining 40% are reserved for the final examination. The breakdowns are as follow:

- Class attendance = 5%
- Assignment = 10%
- Class Test = 20%
- Mid-term = 25%
- Final Exam = 40%

- Research and development:
- Selection and appointment of staff:
- Staff development etc.

Procedures would then be written for each of these. A procedure is a clear and systematic method that sets out how a function is to be carried out and who is responsible for each of it. Procedures refer to a process that includes many subtasks. Procedures outline what needs to be done.

## 9.12 The Driving Force Behind TQM:

The training and education markets have not yet experienced competitive pressures like manufacturing industry. However, as the worldwide privatization trend continues, it is likely that training and education will become more competitive. Providers of training and education will increasingly find themselves competing in terms of quality, satisfaction, and price. Mandatory total quality and ISO 9000 could well be on the way. Today's choice may be tomorrow's mandate.

Overall, the goals of an integrated ISO 9000 based total quality system can be summarized as:
*(Jackson, Susan 1992 "What You Should Know about ISO 9000". Training, pp. 48-52, May 1992).*

- Listen to the voice of the customer
- Focus on the needs of the market
- Achieve top quality performance in all areas, not just in the product or service

- Establish simple procedures for quality performance
- Continually review processes to eliminate waste
- Develop measures of performance
- Understand the competition and develop a competitive strategy
- Ensure effective communication
- Seek continuous improvement

# CHAPTER-10

## CRITICAL ISSUES IN HIGHER EDUCATION

### 10.1. **Sufficient Full-Time Teaching Staffs:**

Private University Act 1992 was a daring step to create a new horizon for the whole nation. Now-a-days it is being observed that most of the private universities are operating by the part-time teachers instead of sufficient (80% full-time according to UGC) full-time teachers. *(Shahazada Basunia, Private Universities: Problems and Remedies, p 19, Observer Magazine, July23,04)*

They think, part-time teacher is less expensive and contributing more towards quality education. But this is wrong. Full-time teachers can contribute more if we consider the following factors such as, significant amount of time they spent for students of various purposes- class lecturing, academic counseling, tutorial classes, registration, assignment & presentation related activities, industry visits, research and publications etc. But part-time teachers are appointed only for class lecturing. Thus, easily we can assure that full-time teachers contribute more because they are engaged more in interaction with students continuously which has positive impact on quality education.

As we know that, BUET & IBA are operating with the full-time teaching stuffs thus still this two institutions are maintaining world-class education in undergraduate, graduate and doctorate level without any criticism and their students are being praised for outstanding performance at home and abroad.

Finally, it can be said that part-time teachers mean insufficient input and insignificant output. Full-time teachers mean sufficient input and sufficient output.

### 10.2. **Healthy Atmosphere:**

Unhealthy atmosphere creates negative impact on higher education which continuously de-motivates students towards quality learning. Thus, university authority should not establish their university in a commercial settings and UGC (University Grant Commission) must not give them permission for setting a university in a commercial building. Usually, UGC gives permission for

five years for operating private university in a rental building at a commercial or at a residential area. This permission helps to create unhealthy atmosphere because no specific guidelines have mentioned by the UGC to create healthy atmosphere. Some guidelines could be clean campus, wide enough class-rooms, wide-elevator, adequate light or natural light, wide entrance for library and computer lab, hygienic food court with quality foods, indoor recreational facilities etc. The UGC should mention minimum numerical measurement for each factor above mentioned and should assess strictly before giving the permission for operating a private university.

## 10.3. Affordable Pricing Strategy:

All profit and non-profit organizations set prices on their products or services. Price is all around us. You pay rent for your apartment, tuition for your education etc. The 'price' of an executive is salary, the price of a salesperson may be a commission, the price of a worker is a wage and the price of a education is a tuition fees. Still, the price has operated as the major determinant of buyer choice. *(Kotler Philip, Marketing Management, The Millennium Edition, p 456)*

Price is a relative term. We cannot say that all the private universities are charging high tuition fees. Buyers are less- price sensitive when the product is assumed to have more quality, prestige, or exclusiveness. The tuition fees of MBA program at NSU & IUB are high but if we consider the quality education, prestige and exclusiveness then their costs are not high at all. Finally, study can conclude that the affordable pricing strategy should be based on quality service, geographic location, and image of that institution.

## 10.4. Quality Output:

For quality output, quality input resources are required such as students, faculty, staff, administrators, and other personnel; financial support; library, computing and laboratory facilities; recreational facilities; student housing; building and other physical facilities. These are the prerequisite for quality education.

Most forward thinking academic institutions they care to deliver value-added education, treat their students as important customers. " Customers satisfaction and intimacy" are the phrases

frequently heard in such academic environs. In fact human creativity will be our future capital which c an b e g ive full p lay w ith q uality e ducation e specially i n t he h igher e ducation centers. *(Md. Saiful Haque & Nizam Uddin Chowdhury, Private Universities In Spreading Higher Education, P 4June 04,04, The Bangladesh Observer).*

### 10.5. Uniform Grading System:

Different private universities in Bangladesh are maintaining different grading systems and UGC is quite aware of this. It is very difficult to judge one student to see his/her grade point average because all the private universities are not maintaining the same standard of grading system. Therefore, the private universities should adopt uniform standard grading system. Demerits of inflated CGPA are:

- Inflated CGPA misguided the employers during hiring processes.
- Inflated CGPA contributed bad images about their students and their institution.
- Hard to get admission in the reputed public university.

Most of the private universities grading systems are easier than B UET & I BA b ecause g rade point deference between two letter grades (A+ to A-, A- to B+, B+ to B etc. or A to B+, B+ to B, B to C etc. or A+ to A, A to B+, B+ to B etc) is 0.25, which is less than BUET & IBA.

| Institutions | Grade Points Difference Between Two Letter Grades. | Source of Information. |
|---|---|---|
| IUB | 0.30 | Bulletin, Autumn 2003, Vol. II, No 1 |
| Daffodil International University, Dhaka | 0.25 | Undergraduate Bulletin (BBA), p 19, 2002 |
| UniSA | 0.50 | Bulletin, Fall,2003, Vol I |
| IBA | 0.50 | Graduate Bulletin, 1998-1999, MBA Program, IBA, DU |
| BUET(Graduate) | 0.50 | Post Graduate Ordinance, BUET, p5, Nov 2001. |
| JSU, USA | 1.00 | Graduate Bulletin, 1996-1997, JSU, AL, June 1996 |

### Analysis:

- If grade points between two letter grades are higher, the harder the grading system exists.
- If grade points between two letter grades are less, the easier the grading system exists.
- To minimize the inflated grade in most of the private universities in Bangladesh should maintain at least 0.50 grade point differences between two letter grades.
- Easier grading system abstains students from internal competitions, they learn less from the institutions, and they perceive about themselves as good students, which is over estimated image.

# CHAPTER 11
## Conclusion and Recommendation:

## 11.1. Conclusion:

Finally, the study concludes that strategic management issues set the direction for higher education thus institutions can achieve competitive edge and sustain in the competitive market with higher reliability. Few strategic issues are imperative for higher education to maintain high quality in private universities of Bangladesh. These are listed as follow:

Quality strategy focuses on curriculum, library facilities, equity, foreign academic collaboration. credit hour system, awards, industrial attachment etc.

Teaching and Learning Strategy focus on class-room lectures, simulation exercise, homework & quiz, visual aid, model test, study tour, teacher's evaluation etc. This is the integrated system of education thus students can learn quickly and they do not become irritated for continuous learning.

Quality Function Deployment focuses on customer (student) expectations, often referred to as the voice of the customer. It is a planning tool used to fulfill student expectations. It also helps to identify the most important factors for improvement in future thus private university should deploy this technique to identify their strengths and weaknesses compare with better universities.

Human Resource Strategy focuses on recruitment, training and development, appraisal, and promotion of employees.

Marketing Strategy focuses on relationship marketing and theories of marketing in higher education. The result is the concept of relationship marketing, which allows the producer to engender repeated exchanges with the same consumer by establishing a relationship of trust and communication, and to understand better how to shape the offering to suit consumer needs. The goal of relationship marketing is to maintain consumer satisfaction over time.

In considering market paradigms, the basis of competition in higher education was described by the resource advantage model, which specifies the objective as superior financial performance. This study argued that financial performance in higher education is indicated by an institution's capacity to invest in resources, rather than profit-producing ability. In examining theories of the consumer, this study argued that a relationship marketing approach to the consumer would yield the best information upon which to shape the market offer and to engender repeat exchanges.

Quality of Research & Education Strategy focuses on nation system for quality education and internal system for education quality management.
The quality of research can be assessed on a discipline-by-discipline basis at research program level. A review should be conducted in each discipline, which involves the collection of a large amount of factual information about a particular research program, such as its mission and goals, key publications over the past five years, research capacity per program, etc. The report

produced by this committee presents the findings of the committee, its opinion about the research program, recommendations to improve the program, and indicators for the level of the programs in terms of scientific quality, productivity, scientific relevance and feasibility. For each criterion the indicator may range from 1 to 5. A score of 5 represents 'excellent', 4 denotes 'good', 3 'satisfactory', 2 'poor' and 1 very poor.

The team of national system for quality assessment, for both education and research should be deployed in Bangladesh. This team may concern to the certain general requirements for the quality assurance process such as:

-   the quality assessment reviews are periodic
-   the quality reports are public
-   the recommendation in quality reports are to be implemented

ISO 9000 strategy basically describes how its various elements can contributes towards quality education in private universities' settings. The ultimate goal of ISO is customer satisfaction through quality management system and the quality management system is concern about following things. These things must be implemented based on ISO clauses.

- A method to monitor how adherence to the system

- A method for correcting mistakes

- A method for changing the system if it has become obsolete

ISO 9000 is an evidence of quality management system because it is the certified system of quality thus achieving this any institution can claim their education system is quality oriented.

## 11.2. Recommendations:
-   Rich library and laboratory facilities
-   Quality at Entrance
-   Maintain at least 50% PhD. Degree holder faculties.
-   Keep student-faculty ratio 25:1
-   Competent faculty retention rate must be very high
-   Graduate courses must be taught by the Ph.D. degree holder faculty.
-   Uniform and transparent grading system in all private universities.
-   Measure the graduation-rate within five years of education period.
-   Measure the undergraduate acceptance rate.
-   Keep record of student satisfaction survey score.
-   Percentage of student getting job within two years of graduation.
-   Publications per year from all departments.
-   Number of Ph.D. programs.
-   Teachers' Evaluation Records.

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# APPENDIX

1. Teacher's Evaluation Form
2. Snrvey Questionnaire

# TEACHER-EVALUATION FORM:
UNIVERSITY OF SOUTH ASIA, BANANI, DHAKA

Course Name & Number: ----------------------------------------------

Instructor: ----------------------------------------------------------

Semester ------------------------------------------------------------

## INSTRUCTIONS & PURPOSE:

The purpose of these questions is to collect students' perceptions of their course-teacher. Please complete the following questions on the basis of your most recent course of study. Please do not mention your name and complete this form by using **pen only**. Use √ or x sign to complete the each question of the form

| | Strongly Agree 5 | Agree 4 | Satisfactory 3 | Poor 2 | Strongly Disagree 1 |
|---|---|---|---|---|---|
| Q#1: Your instructor was sincere about class timing? | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#2: Your instructor demonstrated knowledge of subject matter. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#3: Your instructor demonstrated skill in questioning | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#4: Your instructor maintained professional attitude and in appearance. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#5: Your instructor of this course motivated you to do the best work. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#6: Your instructor quickly returned your graded quiz, homework, and class-test. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#7. The work-load of this course was evenly distributed among students | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#8: Your instructor was more interested in testing what you had understood than what you had memorized. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#9: Your instructor completed the entire course material on time. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#10: The instructor made a real effort to understand difficulties you might be having with your work. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#11: The instructor worked hard to make the subject interesting. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#12: The instructor made it clear right from the start what he expected from students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Q#13: Overall, I was satisfied with the quality of this course. | ☐ | ☐ | ☐ | ☐ | ☐ |

What aspects of your course are most in need of improvement? Any comments?

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OFFICE USE ONLY

TOTAL SCORE: ------------------

STATUS  ----------------------------

SIGNATURE OF THE AUTHORITY -------------------------------

DATE. ----------------------------------

**THANK YOU FOR YOUR TIME AND CO-OPERATION**

# QUESTIONNAIRE

Please answer the following by rounding your choice on a scale of 1 to 5 where 1 is the least and **5 is the most likely**. You do not have to assign any scale on the items, which are not included in your choice criteria. <u>The below listed factors are related with private universities and fill-up the questionnaire based on your current institution</u>.

Name: ------------------------------------------------ Institution.-----------------------------------------

Program: -------------------------------------------- Signature & Date: -------------------------------

| Aesthetics Factors | Least Likely | Moderate Likely | Likely | Very Likely | Most Likely |
|---|---|---|---|---|---|
| 1. Reasonable Cost | 1 | 2 | 3 | 4 | 5 |
| 2. International Standard Curriculum | 1 | 2 | 3 | 4 | 5 |
| 3. Student-faculty Interaction | 1 | 2 | 3 | 4 | 5 |
| 4. Foreign Degree Holders Full-time Faculty | 1 | 2 | 3 | 4 | 5 |
| 5. Undergraduate Admission Standards | 1 | 2 | 3 | 4 | 5 |
| **Performance Factors** | | | | | |
| 1. Probability of Getting Job Within Two Years of Graduation | 1 | 2 | 3 | 4 | 5 |
| 2. Percentage of Graduate (Masters) Students | 1 | 2 | 3 | 4 | 5 |
| 3. Publications from All Departments in a Year | 1 | 2 | 3 | 4 | 5 |
| 4. Communication Skills of Students | 1 | 2 | 3 | 4 | 5 |
| 5. Industrial Reputation on Job Performance of Graduates | 1 | 2 | 3 | 4 | 5 |

THANKS FOR YOUR COORPERATION

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