

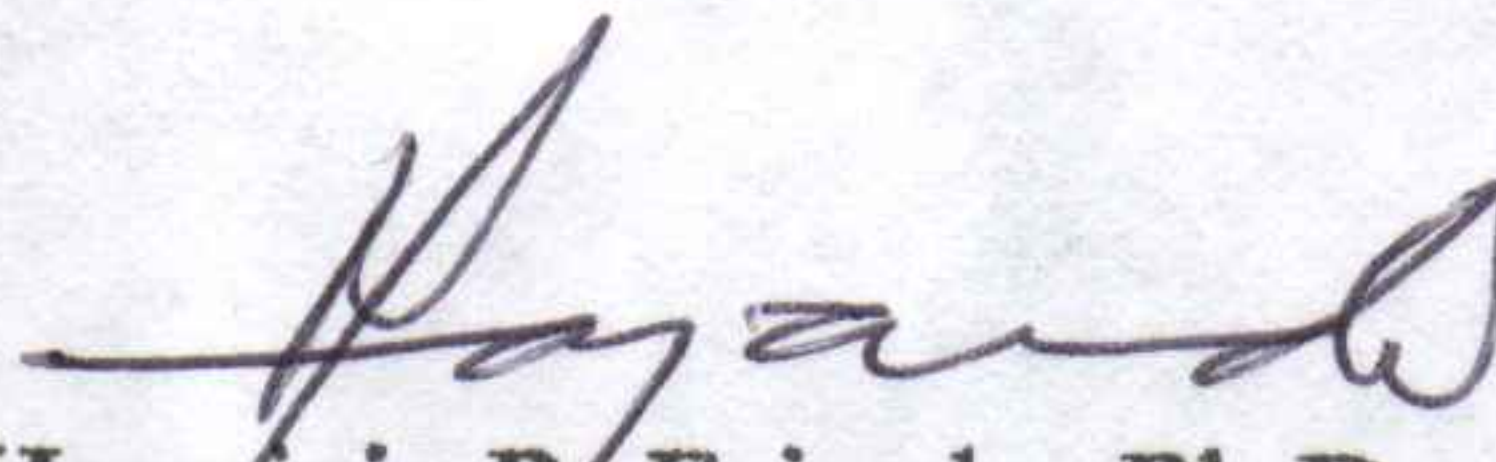


APPROVAL SHEET

This dissertation hereto entitled:

“Service Quality Measurement of Master in Management Programs of Private Schools in Jakarta”

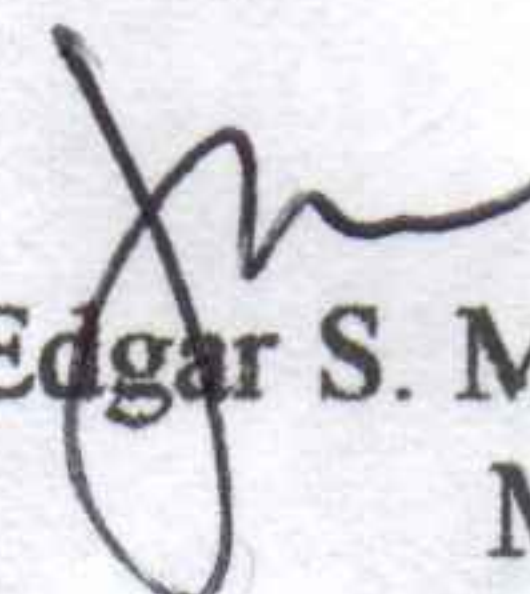
prepared and submitted by **Besar Agung Martono** in partial fulfillment of the requirements for the degree of **Doctor of Business Administration** has been examined and is recommended for acceptance and approval for **ORAL EXAMINATION**.



Herminia R. Fajardo, Ph.D
Adviser

Approved by the Committee on Oral Examination with a grade of **PASSED** on March 1, 2004.

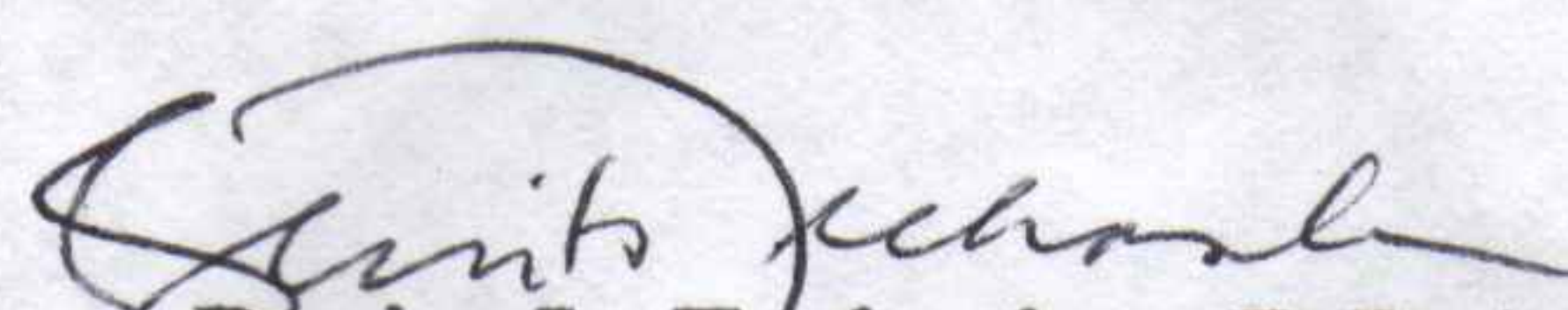

Louie A. Divinagracia, D.B.A.
Chair

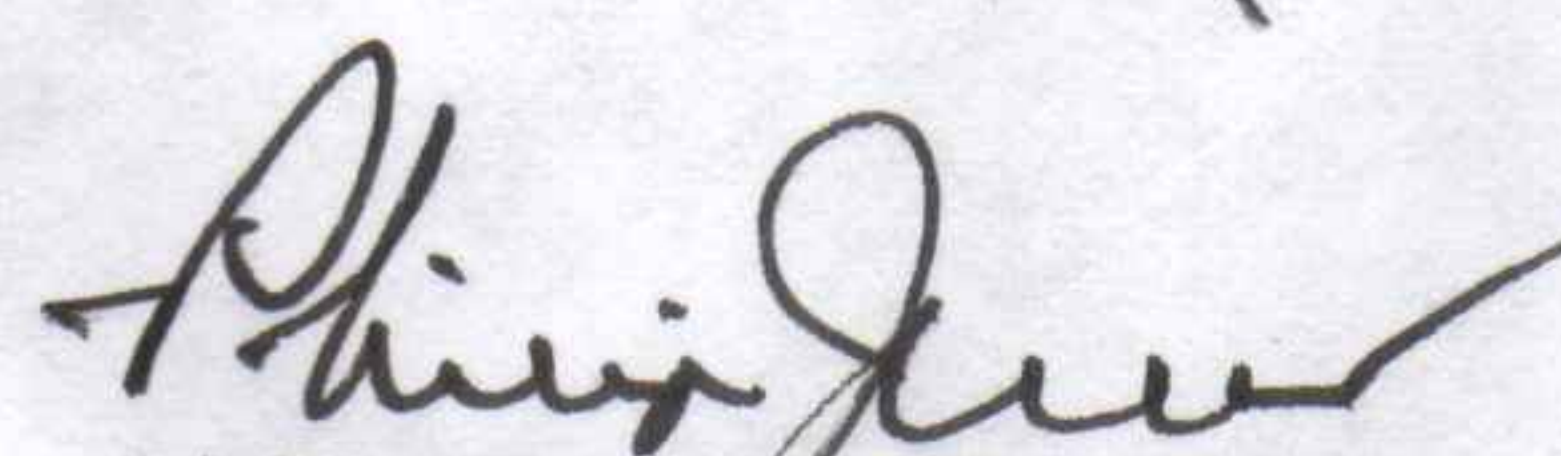

Antonio V. Concepcion, D.M.
Member


Jose Edgar S. Mutuc, Ph.D.
Member


Benito L. Teehankee, D.B.A.
Member

Accepted in partial fulfillment of the requirements for the degree of Doctor of Business Administration.


Benito L. Teehankee, D.B.A.
DBA Director
Graduate School of Business


Philip E. Juico, M.B.M.
Dean
Graduate School of Business



De La Salle University

**SERVICE QUALITY MEASUREMENT
OF MASTER IN MANAGEMENT PROGRAMS
OF PRIVATE SCHOOLS IN JAKARTA**

Final Dissertation Presented to the Faculty of the Graduate School of Business,
De La Salle University, in Partial Fulfillment of the Requirements
for the Degree of Doctor in Business Administration

BESAR AGUNG MARTONO

DE LA SALLE UNIVERSITY

MANILA, PHILIPPINES

March 2004



ACKNOWLEDGEMENT

In the name of God, The Compassionate The Merciful.

Praise be to God, Lord of the Universe.

I wish to express my heartfelt gratitude and appreciation to the following:

- To my adviser Dr. Herminia Fajardo for her valuable guidance and instilling the proper attitude throughout the whole process of dissertation writing and encouragement to meet deadlines.
- To my dissertation panel Dr. Louie Divinagracia, Dr. Antonio Concepcion, Dr. Jose Edgar Mutuc and Dr. Benito Teehankee for their helpful comments and suggestions.
- To my father HR. Soemitro for the financial support provided for finishing the DBA program.
- To my wife Titing, and my children Mutiara, Permata, Irfan, Reza and Fira for their love, cheerful, patience, understanding and full supports.



De La Salle University

TABLE OF CONTENTS

Table of Contents	i
Abstract.....	viii
CHAPTER 1 PROBLEM.....	1
Background of the Problem.....	1
Statement of the Problem	6
Objectives of the Study	7
Conceptual Framework	8
Research Hypothesis	10
Significance of the Study	11
Scope and Delimitations.....	12
Definition of Terms.....	13
CHAPTER 2 REVIEW OF RELATED LITERATURE	15
Quality in Higher Education Services.....	15
Stakeholders of Education.....	22
Characteristics of Product Quality and Service Quality	25
SERVQUAL Concept as Quality Strategy	30
Measuring Quality Strategy.....	36
Performance Excellence	42



De La Salle University

CHAPTER 3 METHODOLOGY	52
Research Design.....	52
Sampling Design.....	58
Measurement and Instrumentation.....	64
Research Procedure.....	70
Data Analysis.....	72
Assumption of the Study	90
Methodological Limitations	91
 CHAPTER 4 RESULTS.....	 94
Profile of Respondents	94
Factors Which Determine Stakeholders' Perceptions of Service Quality_of Master In Management Programs.....	102
Performance Measurements to be Addressed in Order to Achieve Quality of Service for Master in Management Programs	113
Service Quality Performance of Programs Using Identified Performance Measurement.....	122
Operations Strategy to Increase Overall Service Quality Performance of Master in Management Programs of Private Schools In Jakarta.	138
 CHAPTER 5 DISCUSSION	 147



De La Salle University

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS	171
Conclusions	171
Recommendations	179



De La Salle University

LIST OF TABLES

Table 1 - Ten Dimensions Of Service Quality	28
Table 2 - Comparing Typical Quality Measurements.....	29
Table 3 - Item Listing Of 2002 Education Criteria For Performance Excellence.....	47
Table 4 - Attributes of Service Quality.....	54
Table 5 - Category Of Master In Management Programs In Indonesia.....	55
Table 6 - Sampling Design of Respondents by School Accreditation Category.....	59
Table 7 - Comparison of Actual to Targeted Number of Respondents	61
Table 8 - Chi-Square Tests of Sampling Design	64
Table 9 - Measurement Instrument for Importance and Performance Attribute	65
Table 10 - Data Analysis Tabulation	73
Table 11 - Breakdown of Respondents by Category of Schools	95
Table 12 - Distribution of Groups of Respondents by Category of Schools	96
Table 13 - Distribution of Respondents by Age and School Category.....	97
Table 14 - Distribution of Respondents by Age.....	98
Table 15 - Distribution of Respondents by School Category and by Sex.....	99
Table 16 - Distribution of Groups of Respondents by Sex	99
Table 17 - Distribution of Student Respondents by Year of Entry by School Category.....	100
Table 18 - Distribution of Alumni Respondents by School Category and Year Graduated	101



De La Salle University

Table 19 - Factors Which Determine Stakeholders' Perception of Service Quality ..	103
Table 20 - Difference Test of Respondent characteristics Using One Way Anova	111
Table 21 - Mean Value of Significantly Different Attributes of Respondents	112
Table 22 - Tests of Equality of Group Means	114
Table 23 - Structure Matrix	115
Table 24 - Canonical Discriminant Function Coefficients	117
Table 25 - Measurement of Performance as Perceived by Stakeholders.....	119
Table 26 - Measurement of Importance of Attributes as Perceived by Stakeholders.....	121
Table 27 - Discriminant Function.....	123
Table 28 - Gap Analysis in Identified Attributes for Excellent-Accredited Schools..	127
Table 29 - Gap Analysis in Identified Attributes for Learning-Accredited Schools ..	131
Table 30 - Comparison of Characteristics of Schools	135
Table 31 - Action Plan for Excellent-Accredited Schools	181
Table 32 - Action Plan for Learning-Accredited Schools.....	183



LIST OF FIGURES

Figure 1 - Conceptual Framework Of The Research	9
Figure 2 - The Customers Of Education	24
Figure 3 - Viewpoints And Elements Of Product Quality	26
Figure 4 - The Customer Window Matrix	39
Figure 5 - Baldrige Education Criteria For Performance Excellence.....	45
Figure 6 - Research Procedure.....	70
Figure 7 - Performance-Importance Matrix of Attributes.....	124
Figure 8 - Performance-Importance Matrix of Measurements in Excellent-Accredited Schools	130
Figure 9 - Performance-Importance of Measurements Matrix in Learning-Accredited Schools	134
Figure 10 - Prioritized Approach to Increase Quality	139
Figure 11 - Operations Strategy to Increase Quality for Excellent-Accredited Schools ..	141
Figure 12 - Operations Strategy to Increase Quality for Learning-Accredited Schools	142
Figure 13 - Agung Model of Combined CPE-SERVQUAL for MM Programs	143



LIST OF APPENDICES

Appendix A - List of Master in Management Programs in Indonesia	194
Appendix B - Questionnaire	195
Appendix C - Comparison of Rotation Method	198
Appendix D - Validation of Factor Analysis.....	200



De La Salle University

ABSTRACT

The major objective of this study is to establish service quality measurements that will assist in the formulation of operations strategies for Master in Management programs of private schools in Jakarta. This was achieved by identifying factors which determine customers' perceptions of service quality, the service quality performance of schools using identified performance measurements, and the formulation of an operations strategy that will increase the overall service quality performance of Master in Management programs of private schools in Jakarta.

The research has adapted a modified Malcolm Baldrige Criteria for Performance Excellence (CPE) combined with the Service Quality Model (SERVQUAL) and came up with 48 variables with a score of 1,500 as the standard measurement for service quality. The procedure undertaken by stratifying schools into two groups: excellent-accredited and learning-accredited schools. Convenience sampling was administered for 705 respondents consisting of five categories: students, alumni, faculty, staff and employers.

The study identified nine factors as relevant in assessing the performance of the Master in Management programs namely: 1) Information Analysis, Process and Faculty and Staff Focus, 2) Empathy and Responsiveness, 3) Stakeholder Focus and Leadership, 4) School Performance Results, 5) Strategic Planning, 6) Assurance and Tangibles, 7) Reliability, 8) Faculty Competence, and 9) Organization Leadership.

The assessment process of gap analysis revealed the service quality similarities and differences between excellent-accredited and learning-accredited schools on performance and importance among eighteen attributes in accordance with the perception of respondents. Operations strategy for each school category was developed which will serve as a guide to management of the schools for their respective purposes. A model called "Agung Model" was developed to connect the findings of the research to the theoretical concept.

The research was concluded with an action plan directed for each school category, and suggested some areas for further studies. Individual schools may use the assessment approach and instrument as a starting point in identifying their quality strengths to sustain and the weaknesses to overcome, in formulating strategies that will provide service quality in accordance with the school's vision and mission.



De La Salle University

Chapter 1

PROBLEM

Background of the Problem

In the late 1990's the number of private schools, especially Master in Management programs, has significantly increased in Indonesia. Due to the government's regulation which prioritizes master's degree holders for promotion to higher positions, more and more people feel the importance of taking a master's degree. One of the favorites, which allow people from various undergraduate backgrounds to take a master's degree, is the Master in Management program. Prior to that period there were only a few 'exclusive' private schools with expensive tuition fees offering the course. There used to be only two choices: either study abroad or take the expensive Master in Management program in local schools, both of which were unattainable for majority of people in Indonesia.

The growth of public and private universities, which conduct graduate studies for Master in Management programs, should be balanced with an increase in the quality of the programs. The reformation era in this new millennium has triggered changes in the education system in Indonesia leading to the important role of raising quality of education.



De La Salle University

In accordance with the ruling set by the government of Indonesia, as stated by the decree of the Ministry of Education No. 184/U/2001, higher education is subject to the following forms of quality assurance:

- a. Internal quality assurance process undertaken internally by individual universities or colleges as autonomous institutions;
- b. Less role of Private Universities Coordinator (Kopertis) of the Ministry of Education in institutional quality and subject quality reviews for private universities;
- c. Institutional quality and subject quality reviews undertaken externally by the Directorate General of Higher Education (DIKTI); and
- d. Professional accreditation undertaken externally by professional and statutory bodies.

According to the National Accreditation Board of Higher Education (BAN-PT, 2001), universities and colleges in Indonesia are now self-governing institutions with full and clear legal responsibility for the quality and standards of their programs and awards. In many instances their own internal quality assurance arrangements go back many years as institutions were subject to increasingly fierce competition for students and resources, vying mainly on the basis of quality, reputation and price.

The same bulletin stated that the ultimate responsibility for the quality and



De La Salle University

standards of teaching and learning offered by a higher education institution rests with its council or governing body. Oversight of the institution's academic affairs is generally the responsibility of a university's senate or academic board. This, in turn, usually has a committee responsible for academic standards and related matters. Such a committee is often supported by institution-wide subcommittees and/or by committees at department, faculty or school levels.

According to the report by the Directorate General of Higher Education (DIKTI, 2000), the importance of the process of quality assurance system in higher education in Indonesia has been remarkably increasing especially for the last five years. Through the Third Long-term Development Strategy for Higher Education (KPPT-JP) for the period of 1996-2005, the Directorate General of Higher Education introduced a new paradigm of higher education management. At the university management level, the new paradigm emphasizes on five aspects, namely quality, autonomy, accountability, accreditation, and evaluation,

According to BAN-PT (2000), the basic measure in every organization is quality, indicating the degree that outputs and outcomes should meet a particular standard. As a professional organization, creativity, ingenuity, and productivity are enhanced when flexible and independent working patterns are used. Thus, implementing autonomy becomes imperative. A university is always dependent on its environment and the value system, norms and regulations established by the



De La Salle University

surrounding community. The concept of autonomy should be closely associated with accountability. The society, as the source of university funding, has the right to be informed on the quality of the university's performance. In order to provide objective information to the society, the BAN-PT was established in 1996. In addition to the external evaluation and accreditation undertaken by BAN-PT, an evaluation process is needed to support decision-making in the maintenance or development of good management practices. It can be stated, therefore, that continuous quality improvement is central to higher education institution management in Indonesia.

The accreditation undertaken by BAN-PT that evaluates the quality of study programs in public and private universities in Indonesia, reflects to a certain extent, the external quality assurance activity for higher education institutions. It is a fact, however, that the internal quality assurance system in higher education institutions in Indonesia has not been proportionately developed. Efforts should be made to develop the internal quality assurance system of the institution.

The decree of the Ministry of Education No. 184/U/2001 re: Guide to Supervision – Command and Building of Diploma, Undergraduate, and Graduate Programs in Universities, and followed by the decree from the DIKTI No. 08/Kep/2002 re: Technical Guidance for the Ministry's decree, has made a dramatic change in the execution of higher education programs with the decision that every study program in a university has the right to execute the process of education



De La Salle University

autonomously, including:

- a. Receiving students and deciding the number of registration, therefore the registration number established by Kopertis was canceled;
- b. Evaluating the progress of education by conducting its own examination, therefore, the obligation for students to take state examination was canceled; and
- c. Issuing a diploma for the graduate of a university, therefore, the obligation of the student to get a diploma from Kopertis was canceled.

These changes caused all universities to determine their own strategies in order to survive in the midst of competition. Private universities no longer rely on the Private Universities Coordinator (Kopertis), which was then responsible for the process of operations in all private universities in Indonesia. They now must determine the appropriate quality and pricing strategy in order to survive. Private schools have to look after quality performance to deliver quality service to sustain the enrolment.

These changes also impact on the graduate studies especially the master's degree. Currently the most popular master's degree program is the Master in Management. There are 51 accredited universities conducting Master in Management programs, whereby 12 are public located in Jakarta and other cities, 26 are private located in Jakarta, and 13 are private located in five other cities. (Appendix A) The



De La Salle University

new regulations may make a positive impact on the administration of these universities, but also may lead to deterioration of conditions in some.

The primary customers of Master in Management program are government officials and less from private business. A government official in order to get promoted must get a higher level of education, especially promotion from category III to category IV.

The quality of Master in Management program can be viewed differently among students who are government officials and students from private business. The graduates, including government officials and employers of graduates, also have different views in the quality of the graduates. Therefore, quality strategies should be given emphasis to fit the students' needs.

Statement of the Problem

As private schools for Master in Management have become self-governing institutions, they should now think of service quality as an operating strategy in order to get its share of the market.

This study seeks to tackle the following research problems:



De La Salle University

- How do customers' perceive the importance of service quality and the level of quality performance of Master in Management programs?
- What are the service quality performance measurements to be addressed in order to achieve quality of service for Master in Management programs?
- How do MM schools perform in relation to these quality performance measurements?
- What operations strategy may be formulated from the study for increasing the overall service quality performance of Master in Management programs of private schools in Jakarta?

Objectives of the Study

The major objective of this study is to formulate operations strategies, which may be adopted by universities and institutions offering the degree of Master in Management.

Specifically, the study seeks to determine the following:

- To identify factors which determine customers' perceptions of the importance of service quality and the level of quality performance of Master in Management programs;



De La Salle University

- To identify the service quality performance measurements to be addressed in order to achieve quality of service for Master in Management programs;
- To measure the service quality performance of schools using identified performance measurements;
- To formulate an operations strategy that will increase the overall service quality performance of Master in Management programs of private schools in Jakarta.

Conceptual Framework

The research was undertaken within the conceptual framework as shown in Figure 1.

There are three components in the conceptual framework. The first component covers the assessment of the importance and performance of service quality in the Master in Management programs in Jakarta as adopted from the Malcolm Baldrige quality standards as the model for schools to aspire for. The Quality System consist of six categories: 1) leadership; 2) strategic planning; 3) students, stakeholder and market focus; 4) information and analysis; 5) faculty and staff focus; 6) process management.



De La Salle University

Figure 1 - Conceptual Framework Of The Research





De La Salle University

The second component is the assessment of the importance and performance of the service quality measurements of the school as adopted from the Servqual Model (Parasuraman et.al., 1994) as perceived by customers on five dimensions: 1) reliability, 2) assurance, 3) tangibles, 4) empathy and 5) responsiveness.

The third component covers the schools' service quality measurements of performance results for Master in Management Programs of Private Schools Jakarta as influenced by the Baldrige's Criteria for Performance Excellence (CPE) and the Service Quality (SERVQUAL) criteria.

A modification of Baldrige' CPE and SERVQUAL was developed for the measurement and instrumentation of this research.

The conceptual framework incorporates a gap analysis as the measurement for performance against the ideal condition and the value of importance as perceived by the schools' stake holders. The gaps were identified to give ideas and direction in the formulation of operating strategies that will continuously upgrade the school's performance in order to approximate the standard criteria for performance excellence.

Research Hypothesis

The hypothesis propounded by this researcher states that:



De La Salle University

- There is significant difference among attributes of stakeholders' perceptions of service quality performance of Master in Management programs; and
- There is significant difference among the importance and the performance measurement of service quality for Master in Management programs.

Significance of the Study

The study is intended to contribute to the management of Master in Management programs in Indonesia. It will provide:

- Guidance to the management of Master in Management programs in the formulation of a quality strategy fitted to students' needs;
- Direction to the Master in Management programs in developing and improving their performance for competitive advantage;
- Perspective to the Indonesian government in viewing the private schools offering Master in Management programs based on the operating performances.
- Guidance to prospective students in the selection of the appropriate Master in Management programs to pursue.



Scope and Delimitations

The study will confine itself to the measurement of quality perceptions of selected Master in Management programs in Jakarta as rated by stakeholders who were available among students and alumni registered from 1997 - 2003, employers of graduates (universities, enterprises, hiring agencies, etc.), faculty and staff of the program. As an exploratory research, it does not attempt to validate the accreditation results of the National Accreditation Board of Higher Education (BAN-PT), which were previously published in December 2000. Instead, it used the results of accreditation as secondary data for analysis purposes.

The conduct of the research was limited by the time of survey and the location of universities in Jakarta. This study used convenience sampling based on the availability of respondents during the survey period. Adequate number of respondents in each sampled school were covered in anticipation of possible missing answers in the questionnaire. The research can be useful to any policymaker in the Master in Management programs and other private schools concerned, by measuring the quality characteristics adopting the modified Malcolm Baldrige Criteria for Performance Excellence and Service Quality Model.

The scope of the research is exploratory in nature and is not an assessment of the performance of specific schools. It merely looked at the overall MM program



De La Salle University

operations strategy from the perspective of management of higher education. The researcher is currently a member of the faculty and formerly the administrator of one of the sampled schools used in the survey and may have reflected unintentional biases due to the knowledge of the operations of such school.

Definition of Terms

BAN-PT	:	National Accreditation Board of Higher Education in Indonesia
CPE	:	Criteria for Performance Excellence
DIKTI	:	Indonesia's Directorate General of Higher Education
Kopertis	:	Coordinator of Private Universities of the Ministry of Education in Indonesia.
MBNQA	:	Malcolm Baldrige National Quality Award
NIST	:	National Institute of Standards and Technology
PAT	:	Profile Accumulation Technique
Quality	:	The aggregate characteristics of service that satisfy the needs of the customers of Master in Management programs.
RATER	:	Reliability, Assurance, Tangibles, Empathy, Responsiveness.
SERVQUAL	:	Service Quality Model.
Schools	:	Selected private graduate schools of Master in Management programs in Jakarta



De La Salle University

Stakeholders : Respondents of education services consisting of external customers including students, graduates, employers of graduates (universities, enterprises, hiring agencies, etc.), and internal customers consisting of faculty and staff of the program.



De La Salle University

Chapter 2

REVIEW OF RELATED LITERATURE

The literature collected and discussed below are those, which are closely relevant and have significant foundation to answer the problems and contribute to attaining the objectives of the study. The readings including the subject on quality of services in higher education services, quality characteristics, quality strategy and quality performance, were used as the basis in formulating the conceptual framework in the development of an operations strategy.

Quality in Higher Education Services

Quality of services is more difficult to measure than quality of manufactured goods. Because of the intangible nature of services, which is observed through interactions, the measurement is more of a subjective perception. A user of a service has few features in mind as a basis for comparison among alternatives. Lack of one feature may eliminate a service from consideration. Quality also may be perceived as a bundle of attributes in which many lesser characteristics were superior to those of competitors according to Murdick et. al. (1990) and Cook and Verma (2002).

Sallis (1993) and Spencer-Matthews, (2001) stated that the movement for total quality in education is of recent origin. There are few references available in



De La Salle University

literature before the late 1980s on the subject. Much of the pioneering work of reorganizing work practices on Total Quality Management (TQM) lines has been carried out by a few community colleges in the USA and by some UK further education colleges. The initiatives in the USA developed somewhat before those in Britain, but in both countries the surge of interest occurred from 1990 onwards. Many of the ideas associated with quality are also well developed in higher education and notions of quality are increasingly being investigated and implemented in schools.

In the last decade, many universities and the American Assembly of Collegiate Schools of Business (AACSB) have increased their interest in applying principles of quality management to higher education. There has been general agreement on the tools of quality management, however, there was limited discussion and no universally agreed upon model of quality management. Mergen et. al. (2000) proposed a model of quality management that has three components: quality of design, quality of conformance and quality of performance. The model was applied to Rochester Institute of Technology's College of Business. It provided a framework to identify research, teaching and operational improvement opportunities. While the model may be useful in several ways it had some limitations. One such limitation was the fact that the model has not been subjected to empirical testing. Until this was done it may be difficult to justify its wider appeal and application in other problem situations.



De La Salle University

On the other hand, this model is consistent with Juran's Trilogy. The Juran approach and adaptations of that approach have been widely used by those in new product development. The quality of design, conformance and performance helped the planning of management processes and procedures. However, this research does not follow this model since it has not been tested empirically. Instead it was used for consideration for further discussion.

Tam (2001) investigated various models of measuring quality in higher education, and considered their value and discussed both their shortcomings and contributions to the assessment of higher education institutions. These models include the simple 'production model', which depicted a direct relationship between inputs and outputs; 'the value added approach', which measured the gain by students before and after they receive higher education; and the 'total quality experience approach', which aimed to capture the entire learning experience undergone by students during their years in universities or colleges.

The key concepts of TQM models were also applied in education namely: leadership, education and training, organizational climate, customer service, scientific methods and tools, meaningful data and team problem solving. These can work successfully in a college or university just as they have in manufacturing or service organization according to Spanbauer (1995). The TQM terminology was also discussed in a survey, which was launched to examine the different views on the



De La Salle University

application of industrial quality management principles to higher education. The interpretation of basic terminology, like quality measurement and customer, as well as the applicability of TQM quality standards and quality awards in higher education, were among the main issues questioned. The basic environment, because of the complex and dynamic nature of education, shows that there were some reservations on the mode of operation according to Owlia (1996).

The foregoing models discussed were considered as the basis for conceptualizing the research design as they have similarities in the application to higher education.

Kealy and Rockel (1987) studied the student perception in the influence of college recruitment policies on college quality. They argued that there was an indirect but important link between college recruitment efforts and a student's college choice and that this link was via student perceptions of college quality. Hence they evaluated recruitment activities on the basis of how much they influence those perceptions. They first used factor analysis to identify the latent variables representing student perception of college quality. Then, using ordinary least squares, they regressed each quality perception factor on the variables which influence student perceptions.

An important dimension of quality in higher education is the quality of the



De La Salle University

outcome achieved. In the study by Warn and Tranter (2001), the outcome under investigation was the development of attributes in graduates. Empirical measures of the attributes were defined by reference to an expanded generic competency model. The study involved self-assessment by the graduates. The aim of the study was to examine the extent to which the development of generic competencies in graduates predicted their perceptions of overall quality in their degree and fitness for entry into the workplace. The competency model had only partial success in estimating the graduates' assessment of the quality of their higher education. This competency approach was used partially in constructing the questionnaires for graduates of Master in Management programs in this study.

Up to 2002, the Malcolm Baldrige National Quality Award (MBNQA) has intensively reviewed the progress of quality in education specifically the Criteria for Performance Excellence (CPE), which is widely used. The Baldrige CPE provides a system perspective for understanding performance management. They reflect validated, leading-edge management practices against which an organization can measure itself. With their acceptance nationally and internationally as the model for performance excellence, the CPE represents a common language for communication among organizations for sharing best practices according to the American National Institute of Standards and Technology (NIST, 2002). There have been many examples of MBNQA participant schools from USA, which have increased the number of students graduating with the highest diploma recognition as registered in



De La Salle University

the Baldrige in Education Quality Center, 2002. The implementation of MBNQA process assisted schools in aligning all system elements toward higher student achievement.

In the United States, almost every state has adopted student's performance standards. State policymakers were implementing assessment procedures to track the progress in meeting state standards and creating accountability measures that reward success and deal decisively with low performance. Students unable to pass state proficiency tests may be denied a diploma. Principals and staff in schools designated as low performing may be reassigned or dismissed. The implication of these was that educators need a proven long-term strategy to drive their reform efforts according to Siegel (2000). The Indiana Initiatives was one of the efforts to promote Baldrige in Education in the USA, with the purpose of: 1) accelerating the use of Baldrige Criteria nationwide to improve student and system performance; 2) building education system capacity to align state policy and local practice in order to make continuous improvements; and 3) supporting business leaders who understand Baldrige, to apply such experience in their state and community business/education partnerships as stated by Siegel and Chesnut (2000).

For enforcing the efforts in applying Baldrige nationwide, two bills supporting Baldrige in Education (BiE) pilot programs were proposed to California legislators, as one example. These bills assist schools and districts to implement the



De La Salle University

national Baldrige Education Criteria for Performance Excellence, the criteria that lead to world-class systems. The first bill SB 1543 supports a Baldrige pilot, and the second bill AB 2212 supports the shared leadership of student's academic achievement and motivation. There were also discussions which compared the Baldrige criteria to the European Foundation of Quality Management (EFQM) criteria and ISO 9000:2000 (Klefsjo, 2002, Osseo-Assare, 2002, Peters, 1999, Martin-Castilla, 2002). Furthermore, programs to train Baldrige examiners have been developed to make sure the programs succeed in the long term. There were 400 leading experts helping organizations with their learning and improvement processes (Hoisington, 2001).

In the United Kingdom higher education, the progress of TQM was rather slow, with examples represented by only a few new universities. However, these situations have benefited from a TQM process similar to their counterparts in the US, such as improved student performance, better services, reduced costs and customer satisfaction. The result of a recent survey on TQM in UK higher education institutions were reported. How TQM principles and core concepts can be measured to provide a means of assessing the quality of institutions on various aspects of their internal processes was examined. It was found that the measurements of TQM principles and core concepts, which were critical success factors reflect performance of institutions (Kanji, Malek, 1999).



De La Salle University

Indonesia recently applied the accreditation system through the National Board of Accreditation for Higher Education (BAN-PT) established in 1996, but started accrediting graduate school of universities since 2000. The basis for accreditation follow the British system. The evaluation consists of two stages: internal evaluation (self review) and external evaluation (assessment by BAN-PT). The result of the evaluation gave three categories of private schools: the highest category is EXCELLENT, the second category is LEARNING and third category is UNACCREDITED (Natawidjaya, 2000, Tadjudin, 2000). Up to 2000, BAN-PT has finished accrediting 4000 undergraduate programs and in the year 2001 and 2002, continued to make accreditation for diploma and graduate programs (Suparman, 2000, Soetrisno, 2000).

In 2000 BAN-PT made a comparative study concerning the university quality assurance in the United Kingdom. The study was conducted in three universities, i.e. the University of Newcastle upon Tyne, University of Sunderland, and Napier University Edinburgh. The study covered five areas: 1) typical organizational structure of the UK's universities, 2) internal subject review, 3) staff development, 4) opening new study programme and 5) taught program review (Tyoso, et.al., 2000).

Stakeholders of Education

The education sector has to understand the needs of current and future



De La Salle University

students and stakeholders as well as the market. Although many of the needs of stakeholders must be translated into educational services for students, the stakeholders themselves have needs that organizations must accommodate. A key challenge frequently expounded is to balance differing needs and expectations of students and stakeholders and among stakeholders themselves. The student and stakeholder satisfaction and dissatisfaction results provide vital information for understanding the students, the stakeholders and the market (NIST, 2002).

The word “customer” (or client as they were called in professions) needed to be stretched to include all persons who are affected by the organization’s processes and services (parents, teachers, students, business, community, etc.). The educational community has to precisely understand the needs of the customers, and should design processes and services that meet and even surpass the customer needs. Many school districts launch their quality efforts with an in-depth customer satisfaction survey. The result of such an effort often identifies the critical areas that become areas for quality improvement activities as stated by Blackiston (1996).

Sallis (1993) mentioned stakeholders as the customer, which was a very diverse group that needs identifying. If quality was about meeting and exceeding customer needs and wants, it was important to be clear whose needs and wants we should be satisfying. Categories of customers were defined and distinction was made between 'primary customers' who directly receive the service, 'secondary customers'



De La Salle University

such as parents, governors, sponsoring employers of students who have a direct stake in the education of a particular individual or in a particular institution, and 'tertiary customers' who have less direct involvement in education such as future employers, government and society as a whole, as illustrated in Figure 2.

Figure 2 - The Customers Of Education

Education (Value Added to Learners)	=	The Service
The Learner	=	Primary External Customer/Client
Parents/Governors/Employers	=	Secondary External Customer
Labour Market/Government/Society	=	Tertiary External Customer
Teachers/Support Staff	=	Internal Customers

Source: Sallis, *Total Quality Management in Education*, 1993.

Sallis (1993) and Blackiston (1996) also made distinction between the external and internal customers of the institution. While the major focus of any school, college or university must be on its external customers - learners, parents, etc - it was important to remember that everyone working in an institution provides services to their colleagues. In TQM the staff members were known as the internal customer. Poor internal relationships prevent an institution from working properly, and in the end it is the external customers who suffer.



De La Salle University

The two categories of customers are used in this research as a basis for empirical data by surveying respondents including external customers consisting of students, graduates and employers of graduates (universities, enterprises, hiring agencies, etc.), and internal customers consisting of the faculty and staff of the program.

Characteristics of Product Quality and Service Quality

Tenner and DeToro (1992), stated that value can be viewed most simply as getting things that were faster, better and cheaper than were available elsewhere. There are three dimensions against which trade-off can be made. The first dimension, time, represents how quickly, easily, or conveniently a product or service can be obtained. The second dimension, cost, equates to how expensive the item is. The third dimension, quality, is the most difficult one to characterize.

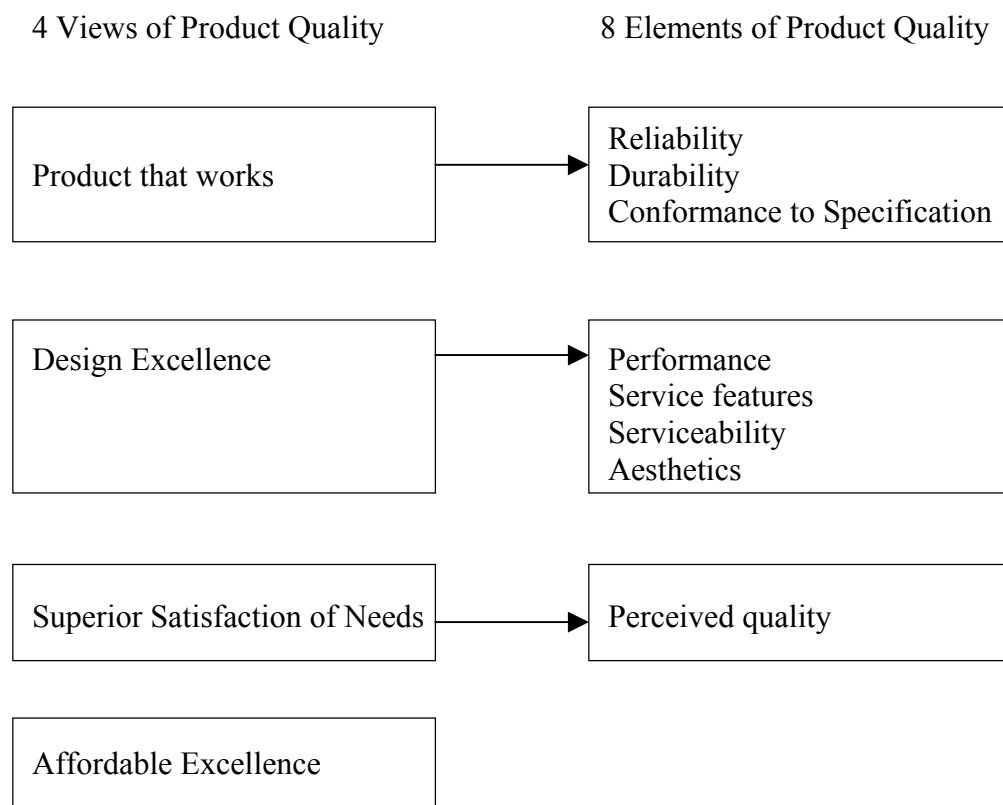
Garvin (1984) reviewed and synthesized the varying definitions of product quality arising from philosophy, economics, marketing, and operations management. He then built an eight-dimensional framework to elaborate on these definitions. Using this framework, he addressed the empirical relationships between quality and variables such as price, advertising, market share, cost, and profitability. According to him, there are four broad views of product quality with each view focusing on consumer, producers, or engineers. In addition, there are eight elements of product



De La Salle University

quality that characterize each of these viewpoints as specified by Garvin (1987), as shown in Figure 3. This framework is not necessarily applicable in education practices since it focuses more on product quality instead of service quality, but some of the concepts are excerpted in this research to get different views from various perspectives.

Figure 3 - Viewpoints And Elements Of Product Quality



Source : Schnaars, *Marketing Strategy a Customer Driven Approach*, 1991.



De La Salle University

The research by Parasuraman, Zeithaml, and Berry (PZB) (1985), proposed a conceptual framework for service quality. This model was widely used and has been modified by researchers to meet a specific service industry such as hotel, restaurants, auto-services and many others. The PZB model is based on the interpretation of qualitative data from extensive exploratory research (focus groups and in-depth executive interviews) performed in four service businesses. Their research revealed 10 dimensions transcending different types of services that customers use in forming expectations about and perceptions of services received, as shown in Table 1.

By synthesizing models, Garvin's eight dimensions of quality, and Berry et al.'s ten determinants of service quality, into the macro set of three dimensions of faster-better-cheaper, Tenner and DeToro (1992) built a single comprehensive set of quality characteristics shown in Table 2. Rather than distinguishing between elements of product and service quality, this set reclassified quality into two components: deliverables and interactions.

The delineation between deliverables and interactions offered an explicit framework within which to identify improvement opportunities. Furthermore, interactions were not limited to face-to-face contact but also through the telephone as well as through electronic and print media. The service experience was further impacted by physical facilities, and customers can interact with many services



De La Salle University

without any human interface. The quality characteristics expected by customers must be assured in all modes.

Table 1 - Ten Dimensions Of Service Quality

1. *Reliability* involves consistency of performance and dependability. It means that the firm performs the service right the first time and also means that the firm honors its promises.
2. *Responsiveness* concerns the willingness or readiness of employees to provide service. It involves timeliness of service.
3. *Competence* means possession of the required skills and knowledge to perform the service.
4. *Access* involves approachability and ease of contact.
5. *Courtesy* involves politeness, respect, consideration, and friendliness of contact personnel (including receptionists, telephone operators, and so on).
6. *Communication* means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language for different customers – increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice.
7. *Credibility* involves trustworthiness, believability, and honesty. It involves having the customers' best interest at heart.
8. *Security* was the freedom from danger, risk, or doubt.
9. *Understanding/knowing the customer* involves making the effort to understand the customers' needs.
10. *Tangible* includes the physical evidence of the service.

(Source: Render, Heizer, *Principles of Operations Management With Tutorials* 2nded. p.109 1997)



De La Salle University

Table 2 - Comparing Typical Quality Measurements

	<i>Product Quality</i>	<i>Service Quality</i>
Faster	Availability Convenience	Responsiveness Accessibility
Better	Performance Features Reliability Conformance Serviceability Aesthetics Perceived quality	Reliability Security Competence Credibility Empathy Communication Style
Cheaper	Price	

Application of this Compendium

Quality was characterized through two sets of elements:

Deliverables: Describe *what* attributes were provided

Interactions: Describe characteristics of staff and equipment that impact on *how* customers experience the service process while it was performed.

Both elements apply to all products, services, and this description can be used to confirm that all major characteristics have been considered.

Source: Tenner, DeToro, *Total Quality Management, Three Steps to Continuous Improvement* (1992)

The compendium of quality was considered for developing the operational framework of analysis of this study, by modifying deliverables and interactions into an appropriate model for Master in Management programs.



De La Salle University

SERVQUAL Concept as Quality Strategy

Since the introduction of the conceptual Service Quality Model, Parasuraman, Zeithaml and Berry (PZB) (1988) published the 22-item instrument referred to as SERVQUAL. Following a discussion of the conceptualization and operationalization of the service quality construct, procedures used in constructing and refining a multiple-item scale to measure the construct were described. Evidence was provided to the scale's reliability, factor structure, and validity on the basis of analyzing data from 4 distinct samples. Potential applications include categorizing firm's customers into quality segments and tracking service levels of individual stores in a chain.

PZB found that customers consider ten determinants to be extracted into five broader categories or five dimensions in their assessment of service quality, abbreviated as RATER including:

1. *Reliability*: Ability to perform the promised service dependably and accurately.
2. *Assurance*: Knowledge and courtesy of employees and their ability to inspire trust and confidence.
3. *Tangibles*: Physical facilities, equipment, and appearance of personnel.
4. *Empathy*: Caring, individualized attention the firm provides its customers.
5. *Responsiveness*: Willingness to help customers and provide prompt service.



De La Salle University

PZB and other researchers have published numerous refinements, reassessments, and rebuttals to criticisms. A study measured customer assessment of service quality for 3 types of services: telephone repair, retail banking, and insurance. SERVQUAL was used to measure the service quality of five nationally known companies. It was concluded (Parasuraman, Zeithaml, and Berry, 1991) that:

1. Tangibles, which were uni-dimensional in the original SERVQUAL scale, split into 2 subdimensions in the revised scale, with one pertaining to physical facilities-equipment and another pertaining to employees-communication materials,
2. The degree of overlap among dimensions was somewhat higher in the revised scale, and
3. While responsiveness and assurance were virtually indistinguishable in the 5-factor solutions, they seemed distinct in the 6-factor solutions

The increasing use of SERVQUAL has been accompanied by an ongoing debate about the need for SERVQUAL's expectations component, the interpretation and operationalization of expectations, the psychometric soundness of SERVQUAL's items.

The research by PZB in 1991 had a 2-fold objective:



De La Salle University

1. To assess alternative service-quality scales to address the measurement issues being debated, and
2. To incorporate into SERVQUAL the two expectation levels to generate a measure of service superiority (that was, perceived service relative to desired service) and a measure of service adequacy (that was, perceived service relative to adequate service).

Three variations of SERVQUAL were developed, each capturing the expanded conceptualization of expectations. The findings imply that managers can obtain a truer assessment of service quality by comparing perceptions against expectations than by interpreting perceptions alone. (Parasuraman, Zeithaml, and Berry, 1994).

The SERVQUAL method was based on the assumption that it was possible to measure customer expectations in relation to a service and their perceptions. There were some methodological concerns with the distribution of questionnaires in SERVQUAL investigations. Respondents had to state their expectations and their experiences, and these can be difficult to distinguish. Another problem was the way in which answers to the questions about perceptions direct or influence answers to the statements concerning experience. This was an extremely important point that could invalidate at least part of SERVQUAL investigation as stated by Pors (2000).



De La Salle University

With more than a decade since the publication of PZB, many researchers have attempted to demonstrate the efficacy, or not, of the SERVQUAL instrument, in order to determine whether to develop their own measurement methods.

Robinson (2000) reviewed the debate in relation to six key aspects: the purpose of the measurement instrument; the definition of service quality; models for service quality. Quality measurements included the dimensionality of service quality, issues relating to expectations; and the format of measurement instruments. The main area of agreement and disagreement were identified. As a result, the continued use of the SERVQUAL instrument was called into question.

Philip and Hazzlet (2000) focused on one of the most widely used service quality scales, SERVQUAL, and looked at some of the areas of concern which have recently been raised regarding its viability as a comprehensive measurement tool for the service industry as a whole. Having carried out citation analysis of both the 1985 and 1988 versions of SERVQUAL, it can be shown that although there was a plethora of published work in the marketing and retail sectors about its applicability, relatively little empirical work has been carried out in other service sectors. More than one-quarter of all published papers where SERVQUAL was a major theme, appear to have severe reservations about this scale. In place of the SERVQUAL scale, a model, which took the form of a hierarchical structure – based on three main attributes – pivotal, core and peripheral (P-C-P) was proposed. This P-C-P model has



De La Salle University

the ability to span any service sector since what was proposed was a skeletal framework within which to consider respective services.

The SERVQUAL instrument has been applied to practical hospitality situations by several researchers. Some researcher groups adapted SERVQUAL to produce a series of questionnaire instruments for measuring hospitality service quality including LODGSERV (Knutson et al. 1991) and DINESRV (Steven et al. 1995). Czaplewski et al. (2002) applied the RATER model for examining the operations of five star hotels in Colorado Springs. On the other hand, Lee and Hing (1995) in Hong Kong and Johns and Teas (1996) in the UK have also used SERVQUAL for measuring the satisfaction of restaurant customers and for distinguishing between the qualities of hospitality outlets.

However, the five dimensions of SERVQUAL criteria are used in this research in combination with the Baldrige CPE to obtain service quality capability of schools according to the evaluation by customers. The dimensions which were used in this research considers the extensive use of both models in various service industries, and, therefore, have undergone numerous reliability and validity tests.

Dion et al. (1998) evaluated empirically the PZB service expectation model. They tested the hypotheses that :



De La Salle University

1. Customers' desired service levels were significantly higher than their adequate service level;
2. There was a significant positive relationship between service superiority and service quality, and between service adequacy and service quality, and between perceived service and service quality;
3. Customer adequacy service levels were significantly elevated by perceived service alternatives, perceived and predicted service levels and transitory service intensifiers;
4. Higher explicit and implicit service promises, word of mouth communication and past experience was significantly linked to higher predicted service levels;
5. Higher enduring service intensifiers, explicit and implicit service promises, word of mouth communication and past experience was significantly linked to higher desired service levels;
6. The variation in customer adequate service levels was significantly greater than the variation in desired service levels;
7. Calculated disconfirmation was a significant positive influence on subjective disconfirmation which was a significant negative influence on satisfaction; and
8. Higher levels of perceived service and lower levels of predicted service will increase buyer satisfaction; and 9) the higher the level of perceived service quality the higher the degree of customer satisfaction.



De La Salle University

The most recent study by Crosby (2003) indicated that most dimensions of quality and the customers' pursuant sense of satisfaction were not permanently established at the time of exchange (transaction point). As the provider maintains post-transactional control over certain dimensions, it was possible to manage the customers' perceptions of quality and value received and therefore, satisfaction. This time-based approach was used to determine the perceptions of quality by the currently enrolled students and alumni. By including price into the model, a major problem encountered during previous uses of the SERVQUAL questionnaire would be eliminated.

Measuring Quality Strategy

Quality strategy was a formulation of long term priorities and it enables institutional change to be tackled in a rational manner (Sallis, 1993).

Rinehart (1993) mentioned that strategy begins with two basic assumptions. First, every organization with a stake in education, including external and internal customers, must be actively involved in the accomplishment of the transformation. Though some steps were aimed at specific elements, inputs from all elements were necessary for success. The second assumption is that quality is a goal, not a state of existence (except as it was acceptably defined in operational terms). The effort to produce quality must continue without ceasing, beyond the completion of this



De La Salle University

proposed or any accepted strategy. Strategic planning enables the formulation of long-term priorities, and it allows institutional changes to be tackled in a rational manner. One of the criteria for performance excellence was strategic planning which focuses on a customer driven approach (Ford and Evans, 2000). Their findings suggested some validity for the CPE framework, which demonstrated the translation of research into managerial practice.

In order to get strategic planning more effective, it is important for a university to have a clear statement of policy on quality. The quality policy is a statement of commitment by the university. It is useful for all universities to draw one as it is a practical way for them to define their own quality. The next stage is to develop the quality plan. The quality plan puts the quality policy statement into action. It shows how the process of quality improvement is to be made and maintained. Clearly, it must relate closely both to the corporate -and business plans but its focus is different. It outlines the processes to be taken in the medium term to deliver quality improvements. As a result the quality plan must have clear aims and objectives in relation to quality and the methods through which management commitment is translated into action. Additionally, it must detail the mechanisms through which the staff can participate in quality improvement teams (Sallis, 1993).

The study by Krishna and Winston (1998) developed a new model of quality to capture the idea that even if a customer chooses to purchase a product, this may fail to



De La Salle University

“deliver”. In this event, the customer may wish to choose some other product. They modeled this as a two-stage game where firms first choose quality and then price. They found that in equilibrium, the high quality firm (the one with a higher probability of being able to “deliver”) will always make higher profits than the low quality one even if costs of quality were sharply increasing. Their work thus provided a reason for high quality niches to be inherently more profitable. These findings were used as supporting validation for hypothesis and assumptions in this current research.

Tenner and DeToro (1992) used customer window matrix as a structured method to survey customers and interpret the results. The approach began by clarifying and segmenting the customer base and designing research questions to learn the relative satisfaction and importance that customers attributed to each specific product, service or performance characteristics. The results were then plotted to prioritize improvement opportunities on a simple grid that represents the heart of the Customer Window shown in Figure 4.



De La Salle University

Figure 4 - The Customer Window Matrix

I M P O R T A N C E	Customer wants but does not get the service	Customer wants and gets the service
	Customer does not want and does not get the service	Customer does not want but gets the service
	PERFORMANCE	

Source: Tenner and DeToro (1992) from David Saunders et al. "Becoming the Internal Vendor of Choice Through Systematic Segmentation and Research," *ASQC Quality Congress Transactions* (San Francisco, May 1990):702.

Wright (2002) used the importance-performance disconfirmation technique to investigate the conceptualization and measurement of service quality within the higher education sector in Western Australia. The results revealed both the core service quality dimension of significance to students in using this service and demonstrated the usefulness and relative simplicity of disconfirmation models generally, for evaluating the service quality construct in the higher education context.

The importance-performance matrix was used in part for the data analysis of this research. By identifying the gaps between the established standard and the actual, among the characteristics from the importance and performance matrix, a



De La Salle University

strategy can be developed to direct the management for more effective results.

A common approach in importance-performance analysis is to use parallel series of questions in the same questionnaire to elicit ‘performance’ and ‘importance’ data. However, this also suffers a number of drawbacks. Respondents may become bored or fatigued by repetitive questions according to Carman (1990). In addition, Johns and Teas (1996) found ‘importance’ to be correlated more highly than ‘expectations’ with ‘performances’, implying the respondents’ inability to distinguish clearly between quality and importance. There seems to be a general, observable positive relationship between importance and performance in many published studies.

The importance-performance analysis can also be done using the Profile Accumulation Technique (PAT) Johns, (2001). PAT is a semi-quantitative quality assessment methodology, based upon eliciting customers’ free responses, by asking them to list the aspects of the service that they like and dislike most, and give reasons for their choices. Thus the customers’ perceptions of service experiences can be assessed without in any way prescribing or influencing their responses. The simple format in which responses were made makes them relatively easy to code, and they can be enumerated using standard office software. Typically, the data are entered into a spreadsheet, listing the case down the left hand side and the aspects, and their associated attributes across the top of the data matrix. Initial calculation consisted in counting occurrences of the aspects and their associated attributes down the columns



De La Salle University

and dividing by the total number of responses, after which more sophisticated statistical analysis can be used to derive further information.

Importance-performance analysis rests on the assumption that importance and performance can be measured independently. In principle therefore one might test this by examining the correlation between measured importance and performance, which should be statistically insignificant if the condition was met. The PAT was considered in the current research to obtain the convenient designing of the questionnaires.

Nicholls et al (1998) developed parsimonious measurement of customer satisfaction with personal service and the service settings. They used a concise customer satisfaction survey instrument to help organizations measure satisfaction with their services. A seven-stage process was used to develop the instrument. Following pilot studies, a preliminary instrument of 24 items was administered to consumers of a variety of business and government agencies providing service to customers or clients. After further analysis, a revised instrument was developed consisting of 18 statements. Additional analysis and further purification led to an even more parsimonious final version of the customer satisfaction survey, employing nine statements in two factors: satisfaction with the personal service (SatPers) and satisfaction with the service setting (SatSett). Organizations could use the scale internally to identify their strength and weaknesses, as well as measuring their



De La Salle University

customer satisfaction. These findings will support the analysis in the present research for obtaining factors for personal service and service setting.

Performance Excellence

Neely (1999) studied the importance of performance measures in every company. He suggested that there are seven main reasons for applying business performance measurement: 1) the changing nature of work; 2) increasing competition; 3) specific improvement initiatives; 4) national and international awards; 5) changing organization role; 6) changing external demands; and 7) the power of information technology. Evidence to support this assertion was drawn from the academic and practitioner literatures, interviews and discussions with people specializing in the field and a broad review of the current state-of-the-art in business performance measurement can be mapped and identifies areas, which require further work.

Further, Neely (1999) argued that despite its apparent simplicity, the question of how business performance can be measured was complicated by two factors: 1) it was not always obvious which measures a firm should adopt; and 2) the measures that was most relevant to the firm will change over time. Those two factors gave raise to two sub-streams of work. The first of these seek to answer the question “how to decide which performance measures to adopt”, while the second, which was much



De La Salle University

less well developed, addresses the topic of “how to manage the evolution of the measurement system”.

In 1987, the Malcolm Baldrige National Quality Award (MBNQA) was introduced and has become the most influential instrument for creating quality awareness throughout the world. The award’s *Criteria for Performance Excellence* (CPE) established a framework for integrating total quality principles and practices into any organization. Its principal focus is on promoting high-performance management practices that lead to customer satisfaction and business results. Ford and Evans (2001) examined the conceptual foundations of strategic planning in the CPE by viewing the CPE as an integrative model of organizational effectiveness that encompasses a number of cross-functional disciplines.

One is led to speculate that a large body of literature relevant to the CPE framework exists. Empirical evidence suggested that Baldrige Award-based assessment typically resulted in improvements to managerial processes. Although the notion of process change is embedded within the CPE framework, the criteria did not explicitly address how an organization manages such change. In the article, the linkage between the criteria and change management was described. It was suggested that an effective process change management model can be derived from the model.



De La Salle University

In today's environment, the Baldrige Education criteria is proposed to help organizations respond to the diverse needs of students, the need for enhanced curriculum and education delivery methods, changing regulatory requirements, demanding accreditation requirements, and the growing role of the Internet. Whether the organization is small or large, is involved in PreK-12 or higher education, or has one facility or multiple sites, the Baldrige Education criteria provides a valuable framework that can help organizations plan in an uncertain environment as indicated by Hertz (2002).

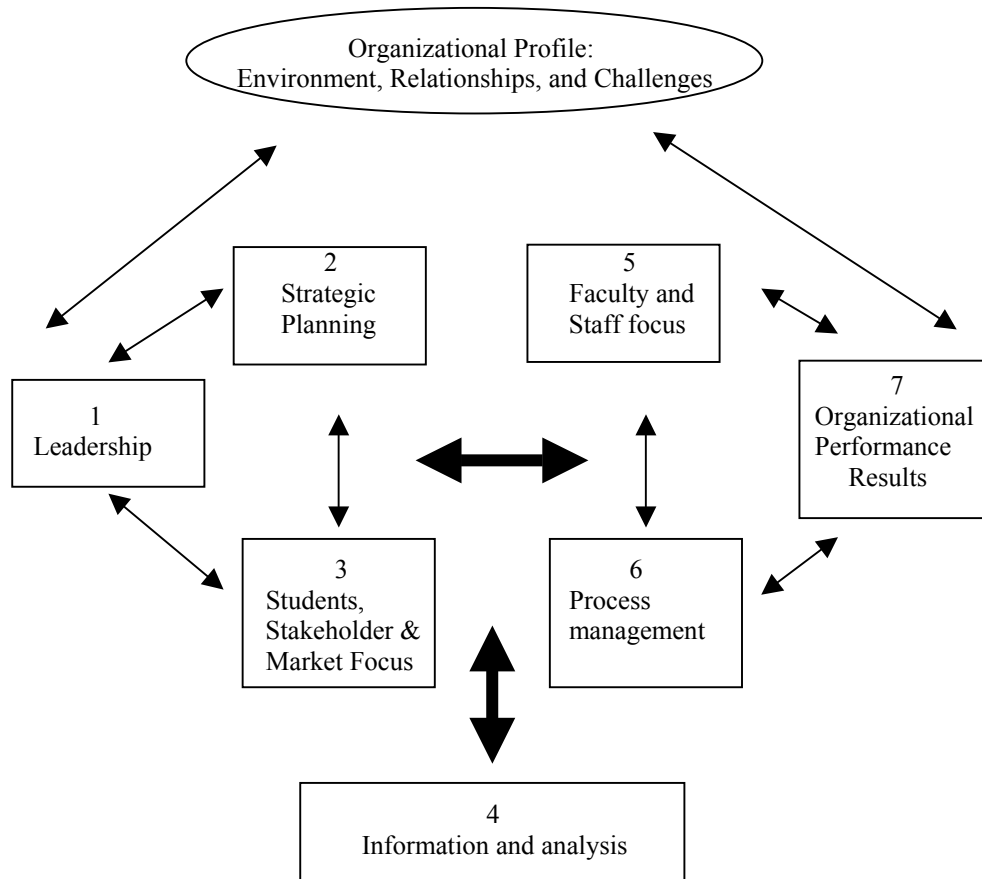
The criteria are built upon the following set of interrelated core values and concepts: 1) visionary leadership; 2) learning-centered education; 3) organizational and personal learning; 4) valuing faculty, staff, and partner; 5) agility; 6) focus on the future; 7) managing for innovation; 8) management by fact; 9) public responsibility and citizenship; 10) focus on results and creating value; and 11) system perspective.

The Malcolm Baldrige CPE consist of a hierarchical set of categories, items, and areas to address. The seven categories associated with the criteria are leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management, and business results. These categories are intended to embody results-oriented requirements that characterize an effective performance management system (NIST 1999, 5). The conceptual relationships between the various categories that comprise the CPE are portrayed in Figure 5



De La Salle University

Figure 5 - Baldrige Education Criteria For Performance Excellence



Source: Education Criteria for Performance Excellence, Baldrige National Quality Program, www.quality.nist.gov/education_criteria.htm, 2002

The system is composed of the six Baldrige categories in the center of the figure that defines the organization, its operations, and its results. Leadership (Category 1), Strategic Planning (Category 2), and Student, Stakeholder, and Market Focus (Category 3) represent the leadership triad. These categories are placed together to emphasize the importance of a leadership focus on strategy, students, and



De La Salle University

stakeholders. Senior leaders set the organization direction, create a learning environment for the organization, and seek future opportunities for the organization. Faculty and Staff Focus (Category 5), Process Management (Category 6), and Organizational Performance Results (Category 7) represent the results triad.

The organization's faculty and staff and its key process accomplish the work of the organization that yields the performance results. All actions point toward Organizational Performance Results – a composite of student, stakeholder, budgetary and financial, and operational performance results, including faculty and staff results and public responsibility. The horizontal arrow in the center of the framework links the leadership triad to the results triad, a linkage critical to organizational success. Furthermore, the arrow indicates the central relationship between Leadership (Category 1) and Organizational Performance Results (Category 7). The two-headed arrow indicates the importance of feedback in an effective performance management system.

Information and Analysis (Category 4) are critical to the effective management of the organization and to a fact-based system for improving performance. Information and analysis serve as the foundation for the performance management system. The seven criteria categories shown in the figure are subdivided into 19 items and areas to be addressed. The item format was shown on Table 3.



De La Salle University

Table 3 - Item Listing Of 2002 Education Criteria For Performance Excellence

P Preface: Organizational Profile

P.1. Organizational Description

P.2. Organizational Challenges

2002 Categories/Items		Point Values
1.	Leadership	120
	1.1. Organizational Leadership	80
	1.2. Public Responsibility and Citizenship	40
2.	Strategic Planning	85
	2.1. Strategy Development	40
	2.2. Strategy Deployment	45
3.	Student, Stakeholder, and Market Focus	85
	3.1. Knowledge of Student, Stakeholder, and Market Needs and expectations	40
	3.2. Student and Stakeholder relationships and Satisfaction	45
4.	Information and Analysis	90
	4.1. Measurement and Analysis of Organizational Performance	50
	4.2. Information Management	40
5.	Faculty and Staff Focus	85
	5.1. Work Systems	35
	5.2. Faculty and Staff Education, Training, and Development	25
	5.3. Faculty and Staff Well-Being and Satisfaction	25
6.	Process Management	85
	6.1. Education Design and Delivery Process	50
	6.2. Student Services	20
	6.3. Support Processes	15
7.	Organizational Performance Results	450
	7.1. Student Learning Results	200
	7.2. Student and Stakeholder Focused Results	70
	7.3. Budgetary, Financial, and Market Results	40
	7.4. Faculty and Staff Results	70
	7.5. Organizational Effectiveness Results	70
TOTAL POINTS		1000

Source: Education Criteria for Performance Excellence, Baldrige National Quality Program, www.quality.nist.gov/education_criteria.htm, 2002



De La Salle University

The CPE was used in this research for building the conceptual framework as the quality system which will influence the service quality performance and which will assist in determining an effective operations strategy. The item list score was used in the research in combination with the SERVQUAL Model as a basis of weighting the components of the questionnaire. Since the scoring system has been used extensively it is assumed to be reliable and valid.

Black and Porter (1996) presented a research methodology that can be used to improve self-assessment frameworks, such as the MBNQA, to better inform an organization in the development of its total quality system. The development of their questionnaire used the MBNQA as a baseline model. Their analysis resulted in identifying 10 critical factors of TQM.

Samson and Terziovski (1999) examined the relationship between TQM practices and operations performance of manufacturing companies. Their study indicated that some, but not all, categories of TQM were strong predictors of operational performance. Wilson and Collier (2000) tested the theory and causal performance linkages implied by the MBNQA. They concluded that the underlying theory of the MBNQA supports the belief that leadership drives the system that causes business results. Curkovic et al. (2000) empirically tested the assumption that the MBNQA adequately captures the major dimensions of TQM.



De La Salle University

Eaton (1999) indicated the effectiveness of operations strategies influenced by quality perceptions called scenario of quality and result, which involves:

- *Making a commitment to results.* This means adding an expanded examination of results to the scrutiny of resources and processes.
- *Examining resources.* This examination should include an institution's fiscal and other resources and involves assessment of an institution's student population (academic preparation, educational goals, and socio-economic status), and was the basis for setting defensible expectations, for example, of student performance.
- *Tying results to institutional purpose.* Institutional goals describing expected results need to be appropriate to each institution's purposes.
- *Expecting results in research and service as well as student learning.* Expecting results in terms of service purposes as well as the teaching purposes of institutions.
- *Deciding what evidence was needed to determine results.* Institutions need to decide what constitutes evidence for results. Evidence can embrace, for example, student achievement while in school and success in future education. It can include gains in value and success in public service initiatives and other gains in financial aspects.
- *Confirming progress toward results.* Institutions then need to collect their evidence to confirm progress toward goals. While measuring progress was not



De La Salle University

easy (as those who argue against "outcomes" suggest), that was no reason not to try it.

- *Comparing results.* Over time, institutions should consider benchmarking their expectations and accomplishments and moving toward community standards. Ultimately, this will make the measurement of educational results both more easy and more reliable.

This research adapted the scenario of quality and result, two dimensions of operations performance are used in the research, first relating to the evidence of the organization's purpose (for example, increased enrolment, and market share enhancement) and the evidence of value gain (for example, service quality enhancement, delivery performance, customer and employee satisfaction, benefit for community).

The assessment process of the Education CPE consists of three phases according to Borsum (1998):

- Phase I.
 1. Senior project manager and assistant meets with the superintendent or designated CEO and key employees to review and modify project planning for use of the QPE demands input from key stakeholders as they



De La Salle University

were often the persons who will collect information and write the self-assessment document;

2. Selection of writing team members, evaluators, and key support personnel; Design and selection of specific notes for areas that were being assessed;
 3. Design and development of a two-day training sessions on the QPE criteria and requirements;
 4. Writing the self-assessment at the organizational levels.
- Phase II.
 1. Self-assessment documents are sent to the evaluators for the desk audit process;
 2. Senior assessment manager reviews feedback reports and analyzes the time needed for the site visit;
 3. Site visit evaluators visitations were developed and planned with site administrators.
 - Phase III.
 1. Senior assessment manager and team review site-visit issues and data and prepare final feedback report with recommendations;
 2. Facilitate feedback review to all participants or key managers.



Chapter 3

METHODOLOGY

Research Design

The study was designed to generate and analyze information gathered from stakeholders of private schools with Master in Management (MM) programs in Jakarta to obtain service quality performance measurements. The research design is classified as exploratory in terms of the degree to which the research questions have been crystallized.

The attributes determined in this research were based on literature research and were designed by combining the Malcolm Baldrige Criteria for Performance Excellence (CPE) and the factors in the SERVQUAL measurement scale. The combination resulted in 12 indicators of service quality measurements and 48 elements, as shown in Table 4, after eliminating duplicated criteria and combining similar ones.

The population of private schools which conduct MM Programs in Jakarta were identified from government records. There are 26 private graduate universities, which have Master in Management programs, and which are accredited by BAN-PT.



De La Salle University

Additional relevant secondary data from the Private University Coordinator (Kopertis) and the Directorate General of Higher Education (DIKTI) were obtained. The data contain information of accredited schools and number of students and alumni for each school up to year 2000. The recent publications for years 2001 and 2002 were not yet available at the time of the survey which was conducted in year 2002. From that data, the universities were then classified based on accreditation category of private schools in Jakarta and on the size of the school in terms of number of registered students.

The initial plan was designed at 100% sampling. The researcher sent letters to all 26 private schools, but only 12 of them gave permission for conduct of the research.

The questionnaire (Appendix B) was constructed and pre-tested using a sample of respondents consisting of students, alumni, employers, faculty and staff of one school. There were 20 respondents involved in the pretest to determine the need for improving the comprehensiveness of the questionnaire.

The survey was administered to the sampled schools and offices, to gather responses from conveniently identified respondents, i.e., those available at the time of the administration of the questionnaire..



De La Salle University

Table 4 - Attributes of Service Quality

No.	DESCRIPTION	No.	DESCRIPTION
LD Leadership		RL Reliability	
1	Organizational Leadership to encourage change	23	Fast and convenience enrolment procedure
2	Organizational Leadership for commitment	24	Administration procedure simple and easy
3	Public Responsibility for continuous improvement	25	On time schedule of classes
4	Public Responsibility on unity of purposes	26	Specific assignments and exams
SP Strategic Planning		AS Assurance	
5	Strategy Development communicate mission statement	27	Administrative staff have good skills
6	Strategy Development comprehensive planning process	28	Competencies of faculty
7	Strategy Deployment on operational capabilities	29	Give secure feelings
8	Strategy Deployment allign with education service	30	Polite service and behaviour
SF Student, Stakeholder, and Market Focus		TN Tangibles	
9	Knowledge of customers' current and future requirements	31	Modern facilities
10	Knowledge customer requirements are understood	32	Beautiful exterior and interior
11	Relationship process for resolving complaints	33	Cleanliness of people and facilities
12	Customer satisfaction regularly measured	34	Complete information and brochures
13	Customer satisfaction to initiate improvements	EM Empathy	
IA Information and Analysis		35	Individual attention to student
14	Measurements of Performance competitors service	36	Result oriented process of study
15	Measurements of Performance for improvements efforts	37	Keep the relationship
16	Information Management to ensure the reliability	38	Best service for all customer
FF Faculty and Staff Focus		RS Responsiveness	
17	Work System training and development process	39	Responsive faculty and staff
18	Faculty and Staff Development communication processes	40	Programs easily followed
19	Well Being and Satisfaction regularly measured	41	Troubleshooting provided easily
PM Process Management		42	In line help
20	Education Design to measure the quality of service	PR School Performance Results	
21	Student Services standardized for operating procedures	43	Student Learning Results value gain
22	Support Process incorporates changing customer/market	44	Student and stakeholder satisfaction
		45	Price of tuitions value compare to benefit
		46	Market share of the school
		47	Faculty and Staff satisfaction
		48	School Effectiveness Results



De La Salle University

The results from the survey were then tabulated and analyzed using statistical tools to establish determinant factor scores. The score results were put into performance-importance matrix to find gaps among attributes and categories. Then the gaps of each attribute were evaluated, to find the appropriate reason why the gaps occur.

Population and Respondents

According to data compiled from BAN-PT (2000, 2001), DIKTI (2001), and the Private Universities Coordinator (2000) there were 33,361 Master of Management students registered, and 12,238 of them have been graduated since 1993 until 2000 (See Appendix A). From these data the schools offering MM courses were sorted out into public and private by number of schools, registered students, alumni and current students, as shown in Table 5.

Table 5 - Category Of Master In Management Programs In Indonesia

	Number of Schools	Registered Students	Alumni	Current Students
Public Indonesia	12	3,513*	842*	738*
Private Jakarta	26	29,848**	11,396**	2,448**
Private outside Jakarta	13	n.a.	n.a.	n.a.
Total	51	33,361	12,238	3,186

* Numbers represent data up to 2000

** Numbers represent data obtained from school year 1993/1994 – 1999/2000

Source: Dikti (2001) and Kopertis (2002)



De La Salle University

Table 5. shows that the number of private schools in Jakarta is more than the number of public schools in the whole of Indonesia. In terms of the number of students, private schools have 89 % of those registered, 93% of alumni, and 77% of those enrolled.. Therefore it was appropriate that the research population considered only private schools in Jakarta. The focus of the population on private schools in Jakarta considered the difficulty of obtaining information from all graduate schools in Indonesia as they are geographically dispersed all over the country, with majority of private schools located in Jakarta.

There are 26 private schools that conduct MM programs in Jakarta.. Among them are big schools and small schools in terms of number of students. The Department of Education has an accreditation body for private schools in the National Accreditation Board of Higher Education (BAN-PT). The accreditation scores each school in three categories, namely: 1) Excellent; 2) Learning and 3) Not Accredited. Data gathered from Kopertis show that those which are accredited are either EXCELLENT or LEARNING category.

On the other hand, the respondents in the sample schools consist of two categories:

1. External customer : students, alumni, faculty, staff and employer; and
2. Internal customer : faculty and staff of the institutions.



De La Salle University

From the secondary data in Table 5, it is seen that there are 11,396 alumni and 2,448 currently enrolled students. The number of faculty and staff of each school is based on the requirement set by the Department of Education specifying that the proportion of faculty and students must not be more than 1:50.

The respondents identified as stakeholders consist of five categories, namely :

1. Students who were registered at the time of the survey (SY 2002-2003) in all terms from first semester to last semester of the program.
2. Alumni who graduated from the schools from 1997 to 2003.
3. Faculty who were teaching in the schools in any subject of the Master in Management program at the time of the survey, regardless of the length of service.
4. Staff who were working in the schools at the time of the survey as administration officers, excluding faculty members, regardless of the length of service.
5. Employers who were superiors of students or alumni in the public government offices of various sectors, and private offices in various industries, regardless of the size of the organization and the duration of relationship.

As mentioned earlier in the literature review, Sallis (1993) mentioned stakeholders as the customers and distinction was made between 'primary customers'



De La Salle University

who directly receive the service, 'secondary customers' who are employers of students who have direct stake in education. The distinction was also made according to Sallis (1993) and Blackiston (1996) between the external and internal customers of the schools.

Sampling Design

The preliminary effort in sampling design was conducted by sending letters requesting permission for the survey to all 26 private schools in Jakarta, consisting of 12 excellent-accredited schools and 14 learning-accredited schools as shown in Appendix A. Only 12 schools gave permission for the research consisting of 8 excellent-accredited schools and 4 learning-accredited schools. The 12 private schools were then taken as the sample and was then stratified based on their accreditation category and the number of currently registered students as shown in Table 6. Schools which were not included as sample have relatively smaller number of students compared to the ones included.

Based on the secondary data obtained from the DIKTI and KOPERTIS, the stratified sampling design covers twelve schools where eight of them are excellent-accredited and four of them are learning-accredited. There were 755 students registered in the sample schools and 139 students in the non-sample schools totalling 894 in all. Therefore, the sample represents 84.45% of students registered in the



De La Salle University

excellent–accredited schools. On the other hand, those registered in learning-accredited schools consist of 1,369 students in sample schools (72.66%) and 515 students in non-sample schools (27.34%) of the total 1,884. Therefore the sampling design warrant further analysis since it is representing majority of schools with MM Programs. There were twelve sample schools out of the total number of 26 schools from where respondents were taken.

Table 6 - Sampling Design of Respondents by School Accreditation Category

Excellent-accredited	Registered up to 2001			
	Entrants	Graduates	Registered	Percentage
Sample School	8,531	2,935	755	84.45%
Non-sample school	2091	443	139	15.55%
	10,622	3,378	894	100%

Learning-accredited	Registered up to 2001			
	Entrants	Graduates	Registered	Percentage
Sample School	15,233	7,104	1,369	72.66%
Non-sample school	4,047	926	515	27.34%
	19,280	8,030	1,884	100%

Source: Compiled from Kopertis, 2002

The sampling design is a combination of convenience and stratified selection of respondents. The sampling design was conducted in two steps. The first step was by using stratified sampling technique and second step by using convenience non-probability sampling technique. Stratified sampling was used by grouping the sample units based on the number of currently registered students of the sampled schools.



De La Salle University

Once the stratified sampling was obtained, the convenience non-probability sampling was used to obtain the sample that conforms to the desired criterion consisting of students, alumni, faculty, staff and employers.

Convenience sampling means that the researcher conducted the data gathering sessions among the available respondents in the appointed locations of universities and offices at the time of the questionnaire administration.

The use of non-probability sampling procedure satisfactorily met the sampling objectives of having a representative number of respondents in each category from the stakeholders in sample schools. A second important reason why non-probability sampling was chosen over the probability sampling was because of cost and time constraints. Non-probability sampling seems to be the only feasible alternative in this case (Emory and Cooper, 1991) as the total population may not be available for study since the location of universities, students and offices of employers and alumni are very dispersed all over Indonesia.

Table 7 shows the breakdown of targeted respondents. 10% of the number of enrolled students from data furnished by the sampled schools, were targetted as respondents. 0.1% of the number of alumni from 1998 – 2002 were identified from the alumni book the schools based on their accessibility or ease of contact during the



De La Salle University

survey.. A small percentage of alumni is used since the current location of alumni is spread in distant locations and difficult to reach for administering the questionnaire.

Ninety six respondents from the faculty and staff from selected schools representing internal customers were targeted, consisting of eight respondents in each school. One hundred respondents representing employers of alumni from selected schools were targeted for the survey of alumni.

Table 7 - Comparison of Actual to Targeted Number of Respondents

Private School	category					Total
	student	alumni	faculty	staff	emplyr	
Excellent-accredited School	196	55	22	25	23	321
Learning-accredited School	220	64	35	35	30	384
Actual Sample	416	119	57	60	53	705
Target percentage	10%	0.1%	4/school	4/school	100	
Planned Sampling	490	130	48	48	100	824
Difference	-74	-11	5	8	-43	-119
Percentage of Actual to Target	85%	92%	110%	115%	53%	86%

As presented in Table 7, the total number of respondents is targeted at 824 consisting of 490 students, 130 alumni, 104 faculty and staff and 100 employers. The actual total number of respondents was 705 consisting of 490 students, 130 alumni, 57 faculty, 60 staff and 53 employers. These numbers include those that showed up for the questionnaire administration and the responses that were discarded because of non-return and incomplete answers. Collectively, the number satisfied the minimum



De La Salle University

sample size which must be at least five times as many observations as there were attributes to be analyzed and preferably the sample size should be 100 or larger (Hair, 1995). Considering the convenience sampling for respondents used, discounting the unreturned and incompletely filled up questionnaires did not affect the results.

Administrators of those schools that gave their permission for the conduct of the survey were contacted to obtain the list of registered students and alumni. Schools gave information of the class schedules so that the questionnaire distribution could be done for the students during the period of class sessions or in other occasions. Not all students were willing to take part in the filling up of questionnaires, therefore, the not-returned questionnaires were discarded. From the sampling design, the actual returned questionnaires was 86%. This was considered high percentage and justified further analysis.

Students and alumni were contacted to come to the school in a specified time or to make appointment to other places. Those that could not make it were scheduled for another time and place.

This researcher administered the questionnaire and was available to clarify points of confusion in answering questions. Clarification and explanations were made to make sure that the percentage of acceptable returned questionnaires was high. This method is considered better than using mailed questionnaire where the returns are



De La Salle University

expectedly low and uncertain. Because of time limitation of the survey, using person-to-person questionnaire administration allows for better management of time. As we can see in Table 7, from the sampling design, the actual number of returned questionnaires by the students was 92% of the planned sample. This was considered a high percentage and justified further analysis.

The faculty and staff were also asked to answer the questionnaire during the period of distributing questionnaire for students. Most faculty and staff were cooperative so there were no difficulties to obtain responses from them. Based on Table 7, the actual number of returned questionnaire was 110% of actual sample to the planned sample for the faculty, and 115% ratio of actual sample to the planned sample for the staff. This was considered very high percentage and justified further analysis.

To administer questionnaires for employers, the researcher asked the alumni and students for the names of their employers. Appointments were made with the employers. The returned questionnaires were only 53%, which is relatively low compared to the sampling design. The result, however, was still justified for further analysis because more than 50% of respondents completed the questionnaire.

The number of respondents were then tested using Chi Square Test for significance of the sampling with the findings shown in Table 8.



De La Salle University

Table 8 - Chi-Square Tests of Sampling Design

Chi Square Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	91.391	44	.000
Likelihood Ratio	92.680	44	.000
Linear-by-Linear Association	7.426	1	.006
N of Valid Cases	705		

Table 8 shows that the Pearson Chi-Square is 91.391 significant at 0.000. The Likelihood ratio was 92.680 significant at 0.000 and linear-by-linear association was 7.426 significant at 0.006. From the analysis, there were 24 cells (40.0%) that have an expected count of less than 5. The minimum expected count was 3.01 based on the sampling design. Therefore the sampling design adequately represents the population.

Measurement and Instrumentation

The measurement of the attributes was made based on Baldrige CPE and the SERVQUAL dimensions. The point values of the Baldrige CPE used the same arrangement from 7 indicators with total points of 1,000 (NIST, 2002). The average points of each attribute range from 17.5 to 30. The value score for SERVQUAL was set at 25 for each attribute which is comparable within the range. Therefore SERVQUAL dimensions used 5 indicators with total points of 500. The weight is equally distributed to the attributes according to Parasuraman in Robinson (1999).



De La Salle University

Table 9 - Measurement Instrument for Importance and Performance Attribute

No.	DESCRIPTION	SCORE	IMPORTANCE	PERFORMANCE
LD Leadership		120		
1	Organizational Leadership to encourage change	40	scale 1 - 5	scale 1 - 5
2	Organizational Leadership for commitment	40	scale 1 - 5	scale 1 - 5
3	Public Responsibility for continuous improvement	20	scale 1 - 5	scale 1 - 5
4	Public Responsibility on unity of purposes	20	scale 1 - 5	scale 1 - 5
SP Strategic Planning		85		
5	Strategy Development communicate mission statement	25	scale 1 - 5	scale 1 - 5
6	Strategy Development comprehensive planning process	20	scale 1 - 5	scale 1 - 5
7	Strategy Deployment on operational capabilities	20	scale 1 - 5	scale 1 - 5
8	Strategy Deployment align with education service	20	scale 1 - 5	scale 1 - 5
SF Student, Stakeholder, and Market Focus		85		
9	Knowledge of customers' current and future requirements	20	scale 1 - 5	scale 1 - 5
10	Knowledge customer requirements are understood	20	scale 1 - 5	scale 1 - 5
11	Relationship process for resolving complaints	15	scale 1 - 5	scale 1 - 5
12	Customer satisfaction regularly measured	15	scale 1 - 5	scale 1 - 5
13	Customer satisfaction to initiate improvements	15	scale 1 - 5	scale 1 - 5
IA Information and Analysis		90		
14	Measurements of Performance competitors service	25	scale 1 - 5	scale 1 - 5
15	Measurements of Performance for improvements efforts	25	scale 1 - 5	scale 1 - 5
16	Information Management to ensure the reliability	40	scale 1 - 5	scale 1 - 5
FF Faculty and Staff Focus		85		
17	Work System training and development process	35	scale 1 - 5	scale 1 - 5
18	Faculty and Staff Development communication processes	25	scale 1 - 5	scale 1 - 5
19	Well Being and Satisfaction regularly measured	25	scale 1 - 5	scale 1 - 5
PM Process Management		85		
20	Education Design to measure the quality of service	50	scale 1 - 5	scale 1 - 5
21	Student Services standardized for operating procedures	20	scale 1 - 5	scale 1 - 5
22	Support Process incorporates changing customer/market	15	scale 1 - 5	scale 1 - 5
RL Reliability		100		
23	Fast and convenience enrolment procedure	25	scale 1 - 5	scale 1 - 5
24	Administration procedure simple and easy	25	scale 1 - 5	scale 1 - 5
25	On time schedule of classes	25	scale 1 - 5	scale 1 - 5
26	Specific assignments and exams	25	scale 1 - 5	scale 1 - 5



De La Salle University

Table 9 - (continued)

AS Assurance	100		
27 Administrative staff have good skills	25	scale 1 - 5	scale 1 - 5
28 Competencies of faculty	25	scale 1 - 5	scale 1 - 5
29 Give secure feelings	25	scale 1 - 5	scale 1 - 5
30 Polite service and behaviour	25	scale 1 - 5	scale 1 - 5
TN Tangibles	100		
31 Modern facilities	25	scale 1 - 5	scale 1 - 5
32 Beautiful exterior and interior	25	scale 1 - 5	scale 1 - 5
33 Cleanliness of people and facilities	25	scale 1 - 5	scale 1 - 5
34 Complete information and brochures	25	scale 1 - 5	scale 1 - 5
EM Empathy	100		
35 Individual attention to student	25	scale 1 - 5	scale 1 - 5
36 Result oriented process of study	25	scale 1 - 5	scale 1 - 5
37 Keep the relationship	25	scale 1 - 5	scale 1 - 5
38 Best service for all customer	25	scale 1 - 5	scale 1 - 5
RS Responsiveness	100		
39 Responsive faculty and staff	25	scale 1 - 5	scale 1 - 5
40 Programs easily followed	25	scale 1 - 5	scale 1 - 5
41 Troubleshooting provided easily	25	scale 1 - 5	scale 1 - 5
42 In line help	25	scale 1 - 5	scale 1 - 5
PR School Performance Results	450		
43 Student Learning Results value gain	150	scale 1 - 5	scale 1 - 5
44 Student and stakeholder satisfaction	70	scale 1 - 5	scale 1 - 5
45 Price of tuitions value compare to benefit	40	scale 1 - 5	scale 1 - 5
46 Market share of the school	50	scale 1 - 5	scale 1 - 5
47 Faculty and Staff satisfaction	70	scale 1 - 5	scale 1 - 5
48 School Effectiveness Results	70	scale 1 - 5	scale 1 - 5
TOTAL SCORE	1500		

Baldrige CPE use the rating from 0% to 100% for each attribute. In the research, respondents rated the importance and performance attributes measured from



De La Salle University

1 to 5. Where 1 indicates least important or very unsatisfactory, and 5 indicates most important or very satisfactory, respectively. The measurement is shown in Table 9.

The scoring of responses to the items are based on two evaluation dimensions: (1) importance, and (2) performance. The respondents were asked to furnish information relating to these dimensions. The scoring was made for the purpose of weighing the answer of respondents. This scoring was obtained from the Baldrige CPE with total score of 1000 to which was added the score of 500 from the SERVQUAL dimensions, coming up to 1,500 total score for all questions. The 1,500 is set as the ideal standard in this research.

Importance refers to the value to the rater of each item. The factors used to evaluate importance consisted of 48 questions.

Performance refers to the outcomes in achieving the requirements given in the items.

The elements of attributes used in the measurement were then transformed into the questionnaire for the instrumentation of the research. Therefore the questionnaire consists of 48 attributes accordingly (See Appendix B). The data obtained from the administration of questionnaires were then tabulated for statistical analysis after multiplying the responses with the score as specified.



De La Salle University

The questionnaire is a combination of the Baldrige CPE and the SERVQUAL Model. It is also simplified so that it is not lengthy and time consuming to complete. It consists of two sections. The first section of the questionnaire covers information regarding the customers participating in the data collection process. The second section consists of twelve categories: leadership, strategic planning, students stakeholders and market focus, information and analysis, faculty and staff focus, process management, reliability, assurance, tangibles, empathy, responsiveness, and organizational performance results.

Prior to implementation, the questionnaire was tested using a group of students who acted as a consumer consultative committee for the school. The group was asked to comment on any aspect of the questionnaire in relation to comprehension, clarity of instruction, time taken to complete and any other matters that may be considered important in undertaking such as study. Tested questionnaires were adjusted accordingly prior to their wider use. Data was collected from the students and alumni as respondents using Indonesian language in the questionnaires. Incomplete responses were sorted out in the data processing and eventually discarded.

In the performance and importance section, each of the attributes were measured on a Likert 1 to 5 rating scale, where 1 indicates least important and least satisfactory and 5 indicates most important and most satisfactory. Respondents indicated their perceptions by making a mark on the specified number.



De La Salle University

The rating of attributes selected from the Baldrige CPE were originally done by an assessor appointed to the specific school. In this research the attributes were modified from the stakeholders' point of view rather than from the assessor's view. There are 28 attributes of the modified Baldrige CPE and 20 attributes of the modified SERVQUAL. There are 7 categories of modified Baldrige CPE consisting of leadership, strategic planning, students stakeholders and market focus, information and analysis, faculty and staff focus, process management, and organizational performance results. There are 5 categories of modified SERVQUAL consisting of reliability, assurance, tangibles, empathy, responsiveness.

Validation was undertaken to obtain optimum result by splitting the samples and using one sub-sample to estimate the model and using the second sub-sample to estimate the predictive accuracy. This method did not only estimate a significant model but also ensured that it was representative of the population as a whole. The result of the importance section showed the value of Guttman Split-half of 0.8929, while the performance section is 0.6605, showing that the responses estimated a significant model can be considered as representative of the population as a whole.

The results show high reliability of Alpha Cronbach. In the Importance section with 24 items, the Alpha for part 1 is 0.9278, and the Alpha for part 2 is 0.9428. In the Performance section part 1 the Alpha is 0.9240 and the that of the 24 Items in part 2 is 0.9265. Therefore, the model is statistically reliable.

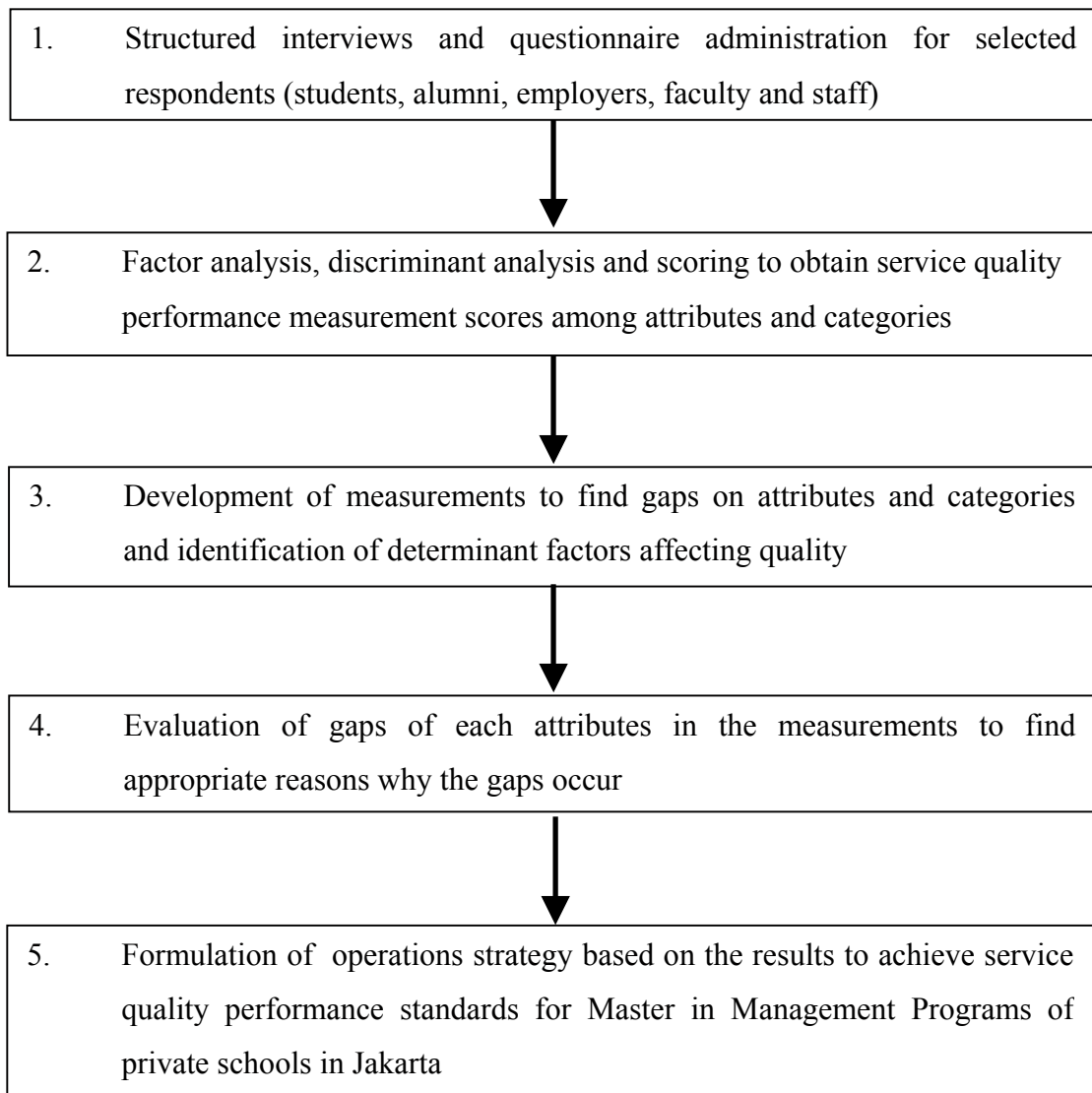


De La Salle University

Research Procedure

The research procedure undertaken is illustrated in Figure 6.

Figure 6 - Research Procedure





De La Salle University

1. Structured interviews and questionnaire administration were conducted for selected respondents. The questionnaire adopted the format prescribed in the Baldrige CPE and the Service Quality by PZB. The questionnaire was tested to check whether respondents could understand the questionnaires or not.
2. Multivariate techniques, namely factor analysis, was used to find the grouping of attributes; discriminant analysis was used to find the discriminant factors among the schools.
3. Quality measurements were developed to find gaps on attributes and categories. The scores then were put into the graph, to determine the gaps among attributes and categories in relation to the standards..
4. The gaps of each attribute in each quadrant of the graph were identified, and evaluated in comparison with the performance standards, to find the appropriate reasons why the gaps occur and thus determine the basis for operating strategy formulation.
5. The operations strategy was formulated based on the results whereby each result was translated into strategic action to meet the performance standards. The strategy will allow schools to continuously upgrade their quality performance.



De La Salle University

Secondary data gathering was done from the records of the National Accreditation Body (BAN-PT) to get the list of accredited universities. The Directorate General of Higher Education (DIKTI) and The Private Universities Coordinator (Kopertis) were contacted to get the list of private schools in Jakarta.

Primary data was gathered from selected schools. A formal letter of request was sent to target schools to seek permission to survey their students and to obtain information about their graduates. Once approval has been obtained from the school, the researcher set up interview sessions and administered the questionnaires by group.

Data Analysis

Data obtained from the survey was tabulated and became an input for further statistical analysis. The input showed a set of cases (respondents) and attributes. The overview of data is as shown in Table 10.

The tabulated data translated the points gathered in the survey into the point values in the operational framework, in accordance with the Education Criteria of Performance Excellence and SERVQUAL factors.

The code indicates the abbreviation of each dimension which contains the number of the question in the questionnaire. Data was tabulated into a spreadsheet



De La Salle University

according to the importance and performance values. The input data started from the 1st respondent until the nth respondent/

Table 10 - Data Analysis Tabulation

Code	Attributes	Number of Questions	Importance Value (P)	Performance Value (I)
LD	School Leadership	4	ILD1 . . n	PLD1-1 . . n
SP	Strategic Planning	4	ISP1 . . n	PSP1-1 . . n
SF	Student, Stakeholder, and Market Focus	5	ISF1 . . n	PSF1-1 . . n
IA	Information and Analysis of School Performance	3	IIA1 . . n	PIA1 . . n
FF	Faculty and Staff Focus	3	IFF1 . . n	PFF1 . . n
PM	Process Management	3	IPM1 . . n	PPM1 . . n
RL	Reliability	4	IRL 1 . . n	PRL 1 . . n
AS	Assurance	4	IAS 1 . . n	PAS 1 . . n
TN	Tangibles	4	ITN 1 . . n	PTN 1 . . n
EM	Empathy	4	IEM 1 . . n	PEM 1 . . n
RS	Responsiveness	4	IRS 1 . . n	PRS 1 . . n
PR	School Performance Results	6	IPR1 . . n	PPR1 . . n

Leadership

Leadership addresses how the senior leaders guide the school in setting school values, directions, and performance expectations. Attention is given to how the senior leaders communicate with faculty and staff, review school performance, and create a learning environment that encourages high performance. This category also



De La Salle University

includes the school's responsibilities to the public and how the school practices good citizenship.

- *School Leadership*

This attribute examines the key aspects of the school's leadership and the actions of the senior leaders in creating and sustaining a high-performance school and an environment conducive to learning, student development, and achievement.

- *Public Responsibility and Citizenship*

This attribute examines how the school fulfills its public responsibilities and encourages, supports, and practices good citizenship, working effectively with key communities to extend the school's learning opportunities.

Strategic Planning

Strategic planning addresses strategic and action planning and deployment of plans. The category stresses that learning-centered education and operational performance are key strategic issues that need to be integral parts of the school's overall planning.



De La Salle University

- *Strategy Development*

This attribute examines how the school sets strategic directions and develops the strategic objectives, guiding and developing key educational and other associated performance requirements.

- *Strategy Planning*

This attribute examines how the school converts the strategic objectives into action plans to accomplish the objectives and how the school assesses progress relative to these action plans. The aim is to ensure that the strategies are deployed for the key education objectives.

Student, Stakeholder, and Market Focus

Student, Stakeholder, and Market Focus addresses how the school seeks to understand the needs of current and future students and stakeholders and to understand the markets. The category stresses relationships as an important part of an overall listening, learning, and performance excellence strategy.

- *Knowledge of Student, Stakeholder, and Market Needs and Expectations*

This attribute examines the school's key processes for gaining knowledge about the current and future student segments and markets, with the aim of offering relevant and effective programs and services, engaging students in



De La Salle University

active learning, understanding emerging student needs and expectations, and keeping pace with market changes and changing methods of delivering educational services.

- *Student and Stakeholder Relationships and Satisfaction*

This attribute examines the school's processes for building student and stakeholder relationships and determining student and stakeholder satisfaction, with the aim of enhancing student learning and the school's ability to deliver its services, satisfy students and stakeholders, develop new opportunities, and foster continuing interactions and positive referrals.

Information and Analysis

The Information and Analysis category is the main point within the criteria for effectively measuring and analyzing performance that will lead to improvement in student and institution operational performance. In simple terms, Information and Analysis is the “brain center” for the alignment of the school's programs and offerings and its strategic objectives. Central to such use of data and information are their quality and availability. The category addresses all basic performance-related information and comparative information, as well as how such information is analyzed and used to optimize school performance.



De La Salle University

- *Measurement and Analysis of School Performance*

This attribute examines the school's selection, management, and use of data and information for performance measurement and analysis in support of school planning and performance improvement. The attribute serves as a central collection and analysis point in an integrated performance measurement and management system that relies on data and information related to student and operational performance, stakeholders, and budget issues. The aim of measurement and analysis is to guide the school's process management toward the achievement of key education results and strategic objectives.

- *Information Management*

This attribute examines how the school ensures the availability of high-quality, timely data and information for all the key users—faculty and staff, students and stakeholders, and suppliers/partners.

Faculty and Staff Focus

Faculty and Staff Focus addresses key human resource practices—those directed toward creating and maintaining a high-performance workplace with a strong focus on students and learning and toward developing faculty and staff to enable them and the school to adapt to change. The category covers faculty and staff development



De La Salle University

and management requirements in an integrated way, i.e., aligned with the school's strategic objectives.

- *Work Systems*

This attribute examines the school's systems for work and jobs, compensation, faculty and staff performance management, motivation, recognition, communication, and hiring, with the aim of enabling and encouraging all faculty and staff to contribute effectively and to the best of their ability. These systems are intended to foster achievement of education objectives and high performance, that will result in individual and school learning, and to enable adaptation to change.

- *Faculty and Staff Education, Training, and Development*

This attribute examines the school's faculty and staff education and training, with the aim of establishing and maintaining a high-performance workplace and building faculty and staff knowledge, skills, and capabilities.

- *Faculty and Staff Well-Being and Satisfaction*

This attribute examines the school's work environment, the faculty and staff support climate, and how to determine job satisfaction, with the aim of fostering the well-being, satisfaction, and motivation of faculty and staff while recognizing their diverse needs.



De La Salle University

Process Management

Process Management is the focal point within the Education Criteria for all key processes—educational processes and those that support these processes, including student services and support processes. As appropriate to the school’s mission, key processes might include conducting research and outreach/service to key communities.

- *Education Design and Delivery Processes*

This attribute examines the school’s key education design and delivery processes, with the aim of improving the school’s educational effectiveness.

- *Student Services*

This attribute examines the school’s key student services, with the aim of ensuring that they meet the most important student needs.

- *Support Processes*

This attribute examines the school’s key processes that support the daily operations as an education school, and the faculty and staff in delivering services.

Reliability



De La Salle University

Reliability means the ability to perform the promised service dependably and accurately. The promised service incorporates learning and teaching factors consisting of the fast and convenience enrollment procedure, simple and easy administration procedure. The customers also demand the timely schedule and well organized assignments and exams.

Assurance

Assurance is important for the the customer to the school to provide knowledge and courtesy of employees and their ability to inspire trust and confidence. The assurance consisting of good skills of employees, competencies of faculty, polite service and behavior of staff to provide secure feelings.

Tangibles

Tangibles in term of physical facilities, equipment, and appearance of personnel is necessary for schools to provide modern facilities, beautiful exterior and interior, cleanliness of people and facilities and complete information and brochures.

Empathy

Empathy means caring, individualized attention the firm provides its



De La Salle University

customers. This includes the individual attention to customer, result oriented process of study, provide good relationship to obtain best service for all customers.

Responsiveness

Responsiveness category has the meaning of willingness to help customers and provide prompt service. This is applied in the responsive faculty an staff, programs easily followed, troubleshooting provided easily and in line help.

School Performance Results

The School Performance Results category provides a result focus that encompasses the students' learning; student and stakeholder satisfaction; the overall budgetary, financial, and market performance; the performance in creating a positive, productive, learning-centered, and supportive work environment; and results of all key processes and process improvement activities.

- *Student Learning Results*

This attribute examines the school's student learning results, with the aim of demonstrating the effectiveness of educational programs and activities.

- *Student- and Stakeholder-Focused Results*



De La Salle University

This attribute examines the school's student- and stakeholder- focused results, with the aim of demonstrating how well the school has been satisfying students' and stakeholders' key needs and expectations that affect satisfaction, loyalty, persistence, and positive referral.

- *Budgetary, Financial, and Market Results*

This attribute examines the school's budgetary, financial, and market results, with the aim of understanding the management and effective use of financial resources and the market challenges and opportunities.

- *Faculty and Staff Results*

This attribute examines the school's faculty- and staff-related results, with the aim of demonstrating how well the school has been creating and maintaining a positive, productive, learning-centered, and caring work environment for all faculty and staff.

- *School Effectiveness Results*

This attribute examines the school's other key operational results, with the aim of achieving school effectiveness, attaining key school goals, and demonstrating good school citizenship.

The general procedures in data analysis adopted the six stages of empirical issues in the decision process for multivariate analysis (Hair et.al, 1995) as described below:



Stage 1: Definition of the multivariate to be used.

Preliminary secondary data on universities was obtained from DIKTI and KOPERTIS. Measurements were identified for primary data from 705 respondents. By using SPSS 11, the computation and analysis of data involved several multivariate techniques. The computation consisted of the determination of the mean value of attributes, the distribution and standard deviation of all attributes. Cross tabulation between attributes were used to evaluate the characteristics of attributes. Cross tabulations were also used to show the distribution and profile of respondents based on categories of respondent, age, sex, year enter and year out from school. Further descriptive analysis was use of Analysis of Variance to obtain the different characteristics of respondents on the attributes.

To identify factors which determine customers' perceptions of the importance of service quality and the level of quality performance of Master in Management programs factor analysis was used. This identified the structure of a set of attributes as well as provided a process for data reduction. In the research, 48 attributes of importance section and 48 attributes of performance section were examined to understand if the perceptions of stakeholders and customers could be "grouped" and reduced from 48 attributes to a smaller number.



De La Salle University

By grouping the perceptions, the schools can identify factors which determine customers' perceptions of the importance of service quality and the level of quality performance of Master in Management programs.

The attribute scores entered in the questionnaires were examined for segmental and sectoral differences by paired-sample analysis of variances for importance against performance.

The discriminant analysis focused on selecting dependent and independent attributes. The dependent attributes consist of 12 groups according to the number of sampled schools. While the independent attributes consist of 48 attributes of performance of the schools as perceived by respondents.

Stage 2: Statistical analysis of data

The factor analysis used the correlation between 48 attributes in the importance section and 48 attributes in the performance section. The sample size of 705 respondents provided an adequate basis for the calculation of the correlation between attributes.

Preliminary effort in reducing attributes included comparing all possible rotation methods: None, Varimax, Oblimin, Quartimax, Equamax and Promax. They



De La Salle University

all have the same reduced factors and total variance of 61.538, but only Varimax gave the relatively evenly distributed variance across 9 reduced factors. Therefore the Varimax rotation method was used. The details of the comparison is shown in Appendix-C. Measurements of attributes using a Likert scale from 1 – 5, weighted according to the score obtained.

In the discriminant analysis, the adequacy of the sample size for the planned analysis was assessed. The sample of 705 observations meets the suggested minimum size for application of discriminant analysis. The ratio of observations to independent attributes is 15 to 1 (705 observations for 48 independent attributes) which is close to the suggested ratio 20 to 1 (Hair, 1995). The 12 groups contain relatively balanced numbers. Therefore the analysis is justified.

Stage 3: Evaluation of the assumptions of the multivariate technique

The underlying statistical assumptions impacted on the factor analysis to the extent that they affected the derived correlations. Factor analysis also assessed the factorability of the correlation matrix. The result of correlation matrix showed that 99% of the correlations were significant at 0.000. To assess the overall significant matrix the Bartlett test of sphericity was used which gave a 0.000 significant level and the measure of sampling adequacy was 0.954. These results provided very



De La Salle University

adequate basis for proceeding to the next level of examination of adequacy for factor analysis on both an overall basis and for each attribute.

The principal assumption underlying discriminant analysis involves the formation of the variate or discriminant function (normality, linearity, and multicollinearity) and the estimation of discriminant function (equal variance/covariance matrices). The method used the Box's M test of equality covariance matrices. The result of Box's M value is 4076 significant at 0.000 level. This result justified further analysis. This result also answered the research hypothesis that there are significant differences among attributes of customers' perceptions of service quality performance of Master in Management programs. Estimation of discriminant function has the objective to determine which attributes are the most efficient in discriminating between perceptions of customers. The analysis used a stepwise procedure with Mahalanobis Distance. The discriminant functions were then incorporated into the customer's perceptions on the performance and importance of specified attributes. The result was used as input for the gap analysis of attributes.

Stage 4: Estimating the multivariate model and assessing overall model fit

The correlation matrix was then transformed through estimation of a factor model to obtain factor matrix by using the Principal Component extraction method and the rotation method using Varimax. Based on the factor loading after rotation, the



De La Salle University

percent variance was explained by the eigenvalue, The sample size from 705 respondents based on the origin of universities and the location of survey was obtained for optimum statistical power and generalizability. The statistical power of the multivariate technique was obtained by using the specification of the regression model by the researcher. Enter and Stepwise methods was used during the regression analysis. The optimal cutting score was determined from the function of students, alumni, employers, faculty and staff in the discriminant analysis.

The overall model fit was measured and the findings interpreted. The errors of prediction or explanation were interpreted.

The test of equality group was used in order that the discriminant function contain the attributes which were significantly different in the function. In this model all of the attributes were found to have significant different inter-group clusters with significant value less than 0.05.

Stage 5: Interpretation of the variate

Results were evaluated with some measure of statistical significance of coefficient determination and regression coefficient. The discriminant functions were interpreted. The variate and individual attributes of leadership, strategic planning, students, stakeholder & market focus, information and analysis, faculty and staff



De La Salle University

focus, process management, reliability, assurance, tangibles, empathy, responsiveness toward school performance results were evaluated. The result of the different perceptions among schools were interpreted by discriminant analysis.

Further analysis were obtained from the Wilks' Lamda and Chi Square test. The value of Wilk's Lambda was transformed to the chi-square value for testing of any significant difference between the centroid of the four function. Function 1 to 5 have significant value of less than 0.05, it means that there are different average score values among the four discriminant functions.

The impact of different attributes on the results were compared with the performance standard matrix to find gaps among attributes and category. Gaps of each attribute were evaluated in comparison to the performance standards to find the appropriate reasons why the gaps occur.

Stage 6: Validation of the model

The validity of the factor analysis was obtained by splitting the sample respondents into two equal samples of 302 respondents and the factor models reestimated to test the comparability. The results are shown in Appendix-D. The results were comparable in terms of both loadings and communalities for all the nine perceptions. With these results it is assured that the results are stable within the



De La Salle University

sample. The differing results obtained in the validation efforts were compared and evaluated.

The result of discriminant analysis of schools and categories were validated using a holdout sample and the assessment of its predictive accuracy. Validity is established if the discriminant function performs at an acceptable level in classifying observations that were not used in the estimation process (Hair, 1995). In this research the holdout sample was formed from the original sample, then this approach established internal validity. Thus the acceptable levels of all measures of predictive accuracy found in the holdout sample established the internal validity.

The discriminant analysis was used for obtaining group comparison profile among the 12 sample schools. The stages consist of evaluating group differences on multivariate profile, classifying observations into groups. Normality of independent attributes, linearity of relationships, lack of multicollinearity among independent attributes, and equal dispersion matrices were analyzed. Stepwise estimation was used, significance of discriminant functions were considered, optimal cutting score determined, and the criterion for assessing ratios were specified. The discriminant weight, discriminant loadings and partial F values were evaluated, combined functions using rotation of functions were also evaluated and potency index, graphical display of group centroids, graphical display of loadings done, samples were split and cross validated, thus, profiling group differences.



De La Salle University

Another computation of data analysis used the performance against importance grid, where the mean of importance factors were placed in axes, while the mean of performance factors were placed in ordinates. Then a four-quadrant strategy was obtained from the results. This results was used as a basis for formulating operations strategy to compare performance standards.

Assumption of the Study

The term quality has different meanings for each entity, i.e., between external customer and internal customer. Among the external customers are primary, secondary and tertiary customers, which also defined quality differently.

The generic strategy for quality was assumed that the better quality the more expensive the price of service, but there is the possibility of “ultimate strategy” which provide better quality for lower price. This strategy was the most effective strategy that an education institution should implement.

In this research, the assumption of the effective operations strategy of education service provided by the graduate schools of Master in Management Programs in Indonesia is assumed to be achieved when it meets the requirement



De La Salle University

standards specified by the combination of Baldrige Criteria of Performance Excellence and that of Servqual.

It is further assumed that the sampled schools represent the general situation among the schools offering Master in Management programs.

Methodological Limitations

Questionnaires that were unreturned and those with missing answers were discarded. However, the number of remaining filled up questionnaires were considered adequate to make up the acceptable number of responses.

Therefore the researcher used the method of use of observations with complete data only. The incomplete data of cases were deleted. This method conforms to Hair et.al. (1998), which mentioned that the simplest and most direct approach for dealing with missing data is to include only those observations with complete data, also known as the complete case approach. The complete case approach is best suited when the extent of missing data is small and the sample is sufficiently large to allow for deletion of the cases with missing data.

Questionnaires were distributed to respondents in the convenient way, which means that there are no specific criteria to meet for each category. The respondents



De La Salle University

who were available at the time of questionnaire administration were the ones who were taken as respondents. This convenience sampling is considered as methodological limitation since it might not represent the whole population, but this method is allowed by the theory (Cooper and Schindler, 2001).

The questionnaire was in Indonesian language to obtain optimum comprehensiveness. The comprehensiveness of Indonesian language was better than in English for the identified respondents. Data tabulation and analysis were done in English as translated by this researcher.

Based on the response during the administration of questionnaires, respondents felt that they understood the questions. The respondents were given time to ask if there were any questions raised. However, the respondents were allowed to answer whatever they think on the statements which were doubtful. Therefore this is considered as methodological limitation.

The methodological limitation in the validation and reliability used the split half sample to cross-check whether the actual data analysis were not perfectly consistent and stable with the factor analysis and the discriminant analysis. Using steps of Hair et.al. (1998), the validity of the factor analysis and discriminant analysis was obtained by splitting the sample respondents into two equal samples of 302 respondents taken from even number of respondent as the first half , and the odd numbered respondents



De La Salle University

as the second half. In this way, the representativeness of respondents based on the schools sample and category of respondents can be fulfilled. The results are shown in Appendix-D.



Chapter 4

RESULTS

The results of the research are presented hereunder in accordance with the research objectives, namely:

1. Identifying factors which determine customers' perceptions of the service quality of Master in Management programs;
2. Identifying the service quality performance measurements to be addressed in order to achieve quality of service for Master in Management programs;
3. Measuring the service quality performance of schools using identified performance measurements; and
4. Formulating an operations strategy that will increase the overall service quality performance of Master in Management programs of private schools in Jakarta.

Profile of Respondents

The sample schools consist of 8 excellent-accredited and 4 learning-accredited schools or a total of 12 schools in all. As discussed under Sampling Design, these are the twelve schools that agreed to participate in the survey and came out to be the breakdown of the students schools by accreditation category by BAN-PT are given in Table 11.



De La Salle University

Table 11 - Breakdown of Respondents by Category of Schools

Category	Number of Students as of 2000						Total		
	Entrants	%	Graduates	%	Registered	%			
8 Excellent-Accredited	No %	8,531 36	70	2,935 29	24	755 36	6	12,221 34	100
4 Learning-Accredited	No %	15,233 64	64	7,104 71	30	1,369 64	6	23,706 66	100
	No %	23,375 100	66	10,039 100	28	2,124 100	6	35,538 100	100

Source: Kopertis Jakarta, 2001

The preliminary result describes the characteristics of each group of respondents and revealed the distribution of respondents by age, sex, school entry year and exit year. It also gave the breakdown of respondents into 416 students (59%), 119 alumni (16.9%), 60 staff (8.5%), 57 faculty members (8.1%) and 53 employers (7.5%). The students category is the dominant group of the total 705 respondents. The distribution of groups of respondents by category of schools is presented in Table 12.

Clearly there were more respondents of each type among schools that are learning-accredited than those that are excellent-accredited despite the fact that there were twice the number of excellent-accredited schools than the learning-accredited schools. A more detailed analysis of this phenomenon may be considered for future research.



De La Salle University

Table 12 - Distribution of Groups of Respondents by Category of Schools

Respondent	School Accreditation				Total	
		Excellent	%	Learning		%
student	No	196	61.1	220	57.3	416
	%	47.1		52.9		100.0
alumni	No	55	17.1	64	16.7	119
	%	46.2		53.8		100.0
faculty	No	22	6.9	35	9.1	57
	%	38.6		61.4		100.0
staff	No	25	7.8	35	9.1	60
	%	41.7		58.3		100.0
employer	No	23	7.2	30	7.8	53
	%	43.4		56.6		100.0
Total		321	100.0	384	100.0	705
		45.5		54.5		100.0

Table 13 gives the distribution of respondents by school category and by age. Note-worthy is the wide range of student age from a low of 26 - 30 years and a high of more than 55. The bulk of students (93%) are 31 to 50 years old. Twenty two student respondents (5.3%) indicates liberal admission requirements among schools. This is confirmed by the young age (26-30) of four alumni respondents in MM. In many countries MM admssion is after three years work experience from graduation from college, which is usually at age not less than 30.



De La Salle University

Table 13 - Distribution of Respondents by Age and School Category

Age Category		School Accreditation				Total
		Excellent	%	Learning	%	
<26	No	3	0.9	7	1.8	10
	%	30.0		70.0		100.0
26-30	No	18	5.6	22	5.7	40
	%	45.0		55.0		100.0
31-35	No	59	18.4	69	18.0	128
	%	46.1		53.9		100.0
36-40	No	87	27.1	96	25.0	183
	%	47.5		52.5		100.0
41-45	No	88	27.4	98	25.5	186
	%	47.3		52.7		100.0
46-50	No	43	13.4	57	14.8	100
	%	43.0		57.0		100.0
51-55	No	18	5.6	28	7.3	46
	%	39.1		60.9		100.0
>55	No	5	1.6	7	1.8	12
	%	41.7		58.3		100.0
Total	No	321	100.0	384	100.0	705
	%	45.5		54.5		100.0

Table 14 indicates that respondents are well distributed among the different age groups and hence, give a broad enough range of perceptions. A comparative analysis of the possible effect of age of students on the service quality assessment of schools may be undertaken in future research.



De La Salle University

Table 14 - Distribution of Respondents by Age

Age Category		Respondents										Total
		student	%	alumni	%	faculty	%	staff	%	employer	%	
<26	No							10	16.7			10
	%							100.0				100.0
26-30	No	22	5.3	4	3.4			14	23.3			40
	%	55.0		10.0				35.0				100.0
31-35	No	78	18.8	28	23.5			20	33.3	2	3.8	128
	%	60.9		21.9				15.6		1.6		100.0
36-40	No	122	29.3	39	32.8	3	5.3	13	21.7	6	11.3	183
	%	66.7		21.3		1.6		7.1		3.3		100.0
41-45	No	130	31.3	32	26.9	4	7.0	3	5.0	17	32.1	186
	%	69.9		17.2		2.2		1.6		9.1		100.0
46-50	No	57	13.7	11	9.2	15	26.3			17	32.1	100
	%	57.0		11.0		15.0				17.0		100.0
51-55	No	6	1.4	4	3.4	29	50.9			7	13.2	46
	%	13.0		8.7		63.0				15.2		100.0
>55	No	1	0.2	1	0.8	6	10.5			4	7.5	12
	%	8.3		8.3		50.0				33.3		100.0
Total	No	416	100	119	100	57	100	60	100	53	100	705
	%	59.0		16.9		8.1		8.5		7.5		100.0

Table 15 and 16 shows the distribution of respondents by sex with an almost equal pattern of distribution in both school categories between males and females. This may have been influenced by school admission policies or may be indicative of a general trend, a topic that may be of interest for future research. The dominance of males over females in all respondent groups in both school categories is quite emphasized and may be a of socio-cultural and/or religious influence, an area that may also be considered for future studies,.



De La Salle University

Table 15 - Distribution of Respondents by School Category and by Sex

Sex		School Accreditation				Total
		Excellent	%	Learning	%	
male	No	236	73.5	282	73.4	518
	%	45.6		54.4		100.0
female	No	85	26.5	102	26.6	187
	%	45.5		54.5		100.0
Total	No	321	100.0	384	100.0	705
	%	45.5		54.5		100.0

Table 16 - Distribution of Groups of Respondents by Sex

Sex		Respondents										Total
		student	%	alumni	%	faculty	%	staff	%	employer	%	
male	No	302	72.6	87	73.1	49	86.0	32	53.3	48	90.6	518
	%	58.3		16.8		9.5		6.2		9.3		100.0
female	No	114	27.4	32	26.9	8	14.0	28	46.7	5	9.4	187
	%	61.0		17.1		4.3		15.0		2.7		100.0
Total	No	416	100	119	100	57	100	60	100	53	100	705
	%	59.0		16.9		8.1		8.5		7.5		100.0

The student respondents as shown in Table 17, were those registered from 1999 to 2003 and , therefore, reflect perceptions and observations that are current. Alumni respondents were those registered from 1995 to 2001 and introduces perceptions of the schools within the decade.



De La Salle University

Table 17 - Distribution of Student Respondents by Year of Entry by School

Category

Year Enter	School Accreditation				Total	Category of Respondent				Total	
	Excellent	%	Learning	%		student	%	alumni	%		
1995	No		4	1.4	4			4	3.4	4	
	%		100.0		100.0			100.0		100.0	
					0.7					0.7	
1996	No	4	1.6	3	1.1	7		7	5.9	7	
	%	57.1		42.9		100.0		100.0		100.0	
					1.3					1.3	
1997	No	15	6.0	11	3.9	26		26	21.8	26	
	%	57.7		42.3		100.0		100.0		100.0	
					4.9					4.9	
1998	No	10	4.0	14	4.9	24		24	20.2	24	
	%	41.7		58.3		100.0		100.0		100.0	
					4.5					4.5	
1999	No	21	8.4	20	7.0	41	2	0.5	39	32.8	41
	%	51.2		48.8		100.0	4.9		95.1		100.0
					7.7					7.7	
2000	No	13	5.2	10	3.5	23	7	1.7	16	13.4	23
	%	56.5		43.5		100.0	30.4		69.6		100.0
					4.3					4.3	
2001	No	50	19.9	44	15.5	94	91	21.9	3	2.5	94
	%	53.2		46.8		100.0	96.8		3.2		100.0
					17.6					17.6	
2002	No	115	45.8	139	48.9	254	254	61.1			254
	%	45.3		54.7		100.0	100.0				100.0
					47.5					47.5	
2003	No	23	9.2	39	13.7	62	62	14.9			62
	%	37.1		62.9		100.0	100.0				100.0
					11.6					11.6	
Total	No	251	100	284	100	535	416	100	119	100	535
	%	46.9		53.1		100.0	77.8		22.2		100.0
						100.0					100.0

Alumni respondents were among those graduated in years 1997 to 2003 for those that came from learning-accredited schools and 1998 to 2003 from those that came from excellent-accredited schools. There is evident diversity in the distribution of alumni in each school category by year of graduation.



De La Salle University

Table 18 - Distribution of Alumni Respondents by School Category and Year Graduated

Year Graduated		School Accreditation				Total
		Excellent	%	Learning	%	
1997	No			4	6.3	4
	%			100.0		100.0
1998	No	1	1.8	2	3.1	3
	%	33.3		66.7		100.0
1999	No	15	27.3	7	10.9	22
	%	68.2		31.8		100.0
2000	No	8	14.5	14	21.9	22
	%	36.4		63.6		100.0
2001	No	18	32.7	18	28.1	36
	%	50.0		50.0		100.0
2002	No	11	20.0	14	21.9	25
	%	44.0		56.0		100.0
2003	No	2	3.6	5	7.8	7
	%	28.6		71.4		100.0
Total	No	55	100.0	64	100.0	119
	%	46.2		53.8		100.0

For further studies a more statistically distributed sample of respondents may show the difference in perceptions of respondents by year of graduation in relation to the faculty, curriculum and other relevant circumstances.



De La Salle University

Factors Which Determine Stakeholders' Perceptions of Service Quality of Master In Management Programs

Factor analysis was used as a data reduction tool to determine stakeholders' perception of service quality. In this research, factor analysis would assist in reducing the number of attributes by creating new composite attributes for each factor. The attributes that resulted from the reduced factors are the stakeholders' perception of service quality and which are addressed to the managers and administrators of the Master in Management program schools to improve performance.

As arrived at through factor analysis, there are nine (9) performance dimensions that determine service quality of MM programs identified by the respondent stakeholders. Details of the elements that compose each of the performance dimensions are given in Table 19.

The Loading column indicates the relative weight of the elements in each of the nine factors with those loading above 0.5 having been included as significant (Hair, 1998). The number of attributes was reduced from 48 to 9 as a result of the varimax rotation method.



De La Salle University

Table 19 - Factors Which Determine Stakeholders' Perception of Service Quality

No.	Factors	Loading	Variance Explained		
			Eigenvalue	% Variance	Cumulative
Factor 1: Information Analysis Process and Faculty Staff Focus			5.673	11.818	11.818
1	Student services standardized for operating procedures	0.748			
2	Performance measurements of competitors service	0.727			
3	Wellbeing and satisfaction of faculty & staff	0.726			
4	Faculty and staff development processes	0.715			
5	Work system training and development process	0.715			
6	Education designed to measure the quality of service	0.698			
7	Information management to ensure reliability	0.694			
8	Measurements of performance of improvements efforts	0.685			
9	Initiate improvements for customer satisfaction	0.575			
Factor 2 : Empathy and Responsiveness			5.559	11.582	23.400
1	Result oriented process of study	0.710			
2	Best service for all customers	0.708			
3	Complete information and brochures	0.702			
4	Keep the relationship	0.691			
5	Individual attention to students	0.639			
6	Cleanliness of people and facilities	0.632			
7	Responsive faculty and staff	0.606			
8	Troubleshooting provided easily	0.581			
9	Programs easily followed	0.580			
10	On line help	0.566			
Factor 3 : Stakeholder Focus and Leadership			3.573	7.444	30.844
1	Public responsibility for continuous improvement	0.811			
2	Customer satisfaction regularly measured	0.765			
3	Know customers' current and future requirements	0.717			
4	Organizational leadership for commitment	0.659			
5	Public responsibility on unity of purpose	0.621			
6	Customer requirements are understood	0.528			
Factor 4 : School Performance Results			3.413	7.110	37.954
1	Student and stakeholder satisfaction	0.685			
2	Price of tuition value compare to benefit	0.659			
3	Market share of the school	0.649			
4	Faculty and staff satisfaction	0.640			
5	Student learning results value gain	0.578			
6	School effectiveness results	0.565			
Factor 5 : Strategic Planning			3.006	6.263	44.216
1	Strategy deployment on operational capabilities	0.722			
2	Strategy deployment aligned with education service	0.695			
3	Strategy development comprehensive planning process	0.656			
4	Strategy development communicate mission statement	0.603			
5	Relationship process for resolving complaints	0.542			



De La Salle University

Table 19 - (continued)

No.	Factors	Loading	Variance Explained		
			Eigenvalue	% Variance	Cumulative
Factor 6 : Assurance and Tangibles			2.553	5.318	49.534
1	Fast and convenient enrolment procedure	0.669			
2	Give secure feeling	0.607			
3	Support process incorporates changing market	0.606			
4	Beautiful exterior and interior facilities	0.582			
Factor 7 : Reliability			2.508	5.226	54.760
1	On time schedule of classes	0.702			
2	Specific assignments and exams	0.639			
3	Administration procedure simple and easy to follow	0.581			
Factor 8 : Competencies			2.039	4.247	59.007
1	Competencies of faculty	0.704			
2	Modern facilities	0.564			
Factor 9 : Organizational Leadership			1.215	2.531	61.538
1	Organizational leadership to encourage change	0.542			

The nine factors are presented in descending weights in term of order of importance to the respondents. Likewise, the 9 factors selected have Eigenvalues greater than 1, as shown under the Eigenvalue column, representing the squared loadings of each factor, also referred to as the *latent root*. The cumulative total of the percent variance of each factor is 61.538 % which is greater than 60% as required to produce an adequately valid factor analysis (Hair, 1998).

Each of the nine factors are discussed below:



De La Salle University

Factor 1 : Information and Analysis, Process Management , and Faculty Staff Focus

This factor is identified as the most important in the perception of the respondents in qualifying the performance of MM programs addressed to the management of schools. With an eigenvalue of 5.673 the variance of Factor 1 is equal to 11.818%. It covers the value placed by respondents on the following elements:

- Desire of students for established procedures to ensure the reliability, consistency and improvement of data gathering process for school operations;
- Awareness and analysis of direct education competitors' service offerings to help improve its own service offerings;
- Maintenance of a work environment and faculty and staff support climate that contribute to the well-being, satisfaction, and motivation of faculty and staff.
- Organizationwide training and development process for faculty and staff, including career path planning for all;
- Training of faculty and staff on work system and development process;
- Education design to effect quality of service ;
- Information management to ensure their reliability;
- Measurement of performance to support improvement efforts; and
- Initiation of improvements to achieve customer satisfaction. in the school.



De La Salle University

Factor 2: Empathy and Responsiveness

The factor of rated second in the performance of MM programs with an eigenvalue of 3.559 and a variance of 11.5828% refers to the manner in which the school/program relates to the customers as follows:

- Result oriented process of study;
- Provision of best service for all customers;
- Complete information and brochures are available;
- Maintenance of school-student relationship;
- Individual attention to the students;
- Cleanliness of people and facilities;
- Faculty and staff responsive to student needs;
- Troubleshooting provided easily by faculty and staff;
- Programs that are easy to follow; and
- On line help available.



De La Salle University

Factor 3: Stakeholder Focus and Leadership

The factor of next higher importance with eigenvalue of 3.573 and a variance of 7.444% examines how the organization determines requirements, expectations, and preferences of students, stakeholders and refer to the following elements:

- Organization's public responsibility for continuous improvement;
- Regular measurement of customer satisfaction in education; Customer requirements are communicated and understood throughout the workforce;
- Awareness of customers' current and future requirements for service education offerings;
- School leadership displays commitment through involvement in quality activities and communication of quality value;
- Public responsibility on unity of purpose; and
- Understanding customer satisfaction to initiate improvements.

Factor 4: School Performance Results

School performance results with eigenvalue of 3.413 and variance of 7.110% are reflected through the following elements:



De La Salle University

- Determination of student and stakeholder satisfaction and dissatisfaction and using information for improvement;
- Tuition value compares to benefits gained;
- Market share of the school;
- Faculty and staff satisfaction;
- Student learning results in value gain; and
- Measurement of school effectiveness.

Factor 5: Strategic Planning

The next factor of performance to the respondents is strategic planning with eigenvalue of 3.006 and variance of 6.263%, which examines how the organization develops strategic objectives and action plans, and refers to the following elements:

- School converts its strategic objectives into action plans;
- School develops and deploy action plans to achieve key strategic objectives;
- Comprehensive planning process with short- and longer-term action plans including key changes in services/programs;
- School has a mission statement that has been communicated throughout the school and is supported by the employees; and



De La Salle University

- School considers its operational capabilities, customer requirements and the community needs when developing school plan, policies and objectives.

Factor 6: Assurance and Tangibles

This factor of assurance and tangible has an eigenvalue of 2.553 and a variance of 5.318% refers to the following aspects:

- Fast and convenient enrolment procedures;
- Provision of secure feelings to students and stakeholders;
- Support services incorporate changes in the market; and
- Pleasant interior and exterior physical appearance.

Factor 7: Reliability

Reliability is the next factor of some relevance with eigenvalue of 2.508 and variance of 5.226% refers to the following issues:

- On time schedule of classes;
- Clear and specific assignments and examinations; and
- Administrative procedures that are simple and easy to follow.



De La Salle University

Factor 8: Competencies

The factor on competencies has an eigenvalue of 2.039 and variance of 4.247%, and the elements under this factor of slight importance are:

- Competence of faculty members; and
- Modern up-to-date facilities.

Factor 9: Organizational Leadership

Of least value to the respondents is the factor on organizational leadership, with the following elements:

- Head of the school or program actively encourages change and implements a culture of trust, involvement, and commitment in moving toward best practices;
- School effectively aligns with several education services.

An additional effort to obtain the different responses among respondents is by using One Way Anova method to test the significant difference among attributes, as shown in Table 20.. The F value obtained from the analysis should be at the significant level of less than 0.10 for validity.



De La Salle University

Table 20 - Difference Test of Respondent characteristics Using One Way Anova

Dimension	Description of Attributes	Importance		Performance	
		F	Sig.	F	Sig.
Leadership	Organizational Leadership encourage change	1.48	0.21	0.77	0.55
	Organizational Leadership for commitment	0.83	0.51	0.86	0.49
	Public Responsibility continuous improvement	1.61	0.17	1.38	0.24
	Public Responsibility on unity of purposes	1.51	0.20	1.33	0.26
Strategic Planning	Strategy Development communicate mission	1.43	0.22	0.14	0.97
	Strategy Development comprehensive planning	1.10	0.36	0.95	0.43
	Strategy Deployment on operational capabilities	2.64	0.03*	1.12	0.34
	Strategy Deployment allign to education service	1.23	0.30	1.76	0.13
Student, Stakeholder, Market Fokus	Knowledge of customers future requirements	2.47	0.04*	0.69	0.60
	Understand customer requirements	2.36	0.05*	1.01	0.40
	Relationship process for resolving complaints	0.26	0.90	0.80	0.53
	Customer satisfaction regularly measured	0.74	0.57	1.84	0.12
	Customer satisfaction to initiate improvements	1.38	0.24	0.20	0.94
Information and Analysis	Measurements of Performance competitors	0.24	0.92	0.41	0.80
	Measurements of Performance for improvements	0.45	0.77	0.87	0.48
	Information Management to ensure the reliability	0.63	0.64	0.83	0.50
Faculty and Staff Focus	Work System training and development process	1.29	0.27	0.37	0.83
	Faculty and Staff Development communication processes	0.98	0.42	1.59	0.17
	Well Being and Satisfaction regularly measured	0.69	0.60	1.18	0.32
Process Management	Education Design to measure the quality	1.74	0.14	0.33	0.86
	Student Services standardized for procedures	0.42	0.79	0.68	0.60
	Support Process incorporates changing market	1.45	0.22	1.14	0.34
Reliability	Fast and convenience enrolment procedure	0.26	0.90	0.87	0.48
	Administration procedure simple and easy	2.93	0.02*	0.78	0.54
	On time schedule of classes	1.30	0.27	0.41	0.80
	Specific assignments and exams	2.96	0.02*	0.80	0.52
Assurance	Administrative staff have good skills	1.53	0.19	0.99	0.41
	Competencies of faculty	1.06	0.38	1.21	0.30
	Give secure feelings	0.10	0.98	0.90	0.46
	Polite service and behaviour	0.71	0.59	0.94	0.44
Tangible	Modern facilities	1.07	0.37	0.19	0.94
	Beautiful exterior and interior	1.21	0.30	1.55	0.19
	Cleanliness of people and facilities	2.48	0.04*	1.22	0.30
	Complete information and brochures	2.24	0.06*	1.43	0.22



De La Salle University

Table 20 - (continued)

Empathy	Individual attention to student	0.88	0.48	0.65	0.63
	Result oriented process of study	0.85	0.50	1.11	0.35
	Keep the relationship	1.30	0.27	0.43	0.78
	Best service for all customer	1.03	0.39	0.65	0.63
Responsiveness	Responsive faculty and staff	1.23	0.30	1.35	0.25
	Programs easily followed	0.67	0.61	0.75	0.56
	Troubleshooting provided easily	0.81	0.52	1.20	0.31
	In line help	1.62	0.17	0.72	0.58
School Performance Result	Student Learning Results value gain	0.90	0.46	1.29	0.27
	Student and stakeholder satisfaction	0.36	0.84	0.15	0.96
	Price of tuitions value compare to benefit	1.38	0.24	0.92	0.45
	Market share of the school	0.29	0.89	0.41	0.80
	Faculty and Staff satisfaction	1.35	0.25	1.40	0.23
	School Effectiveness Results	2.16	0.07*	0.12	0.97

* indicates significant at <0.1

The result shows that only eight attributes in the importance sections are significantly different among respondents, while in the performance sections there are no significant differences in all attributes. Further analysis to find the mean value of each attribute among categories is presented in Table 21.

Table 21 - Mean Value of Significantly Different Attributes of Respondents

Attributes	student	alumni	faculty	Staff	employer
Strategy Deployment on operational capabilities	3.82	3.56	3.49	3.73	3.74
Knowledge of customers future requirements	3.92	3.70	3.60	3.77	3.75
Understand customer requirements	3.64	3.39	3.35	3.53	3.77
Administration procedure simple and easy	4.08	3.82	3.88	3.90	4.17
Specific assignments and exams	3.86	3.70	3.37	3.87	3.87
Cleanliness of people and facilities	3.89	3.68	3.74	3.72	4.04
Complete information and brochures	3.79	3.64	3.60	3.78	4.00
School Effectiveness Results	3.80	3.56	3.63	3.97	3.83



De La Salle University

The table shows that the 8 attributes which are significantly different in importance have low value for alumni and faculty. On the other hand, these attributes have high importance for employers, student and staff.

Performance Measurements to be Addressed in Order to Achieve Quality of Service for Master in Management Programs

Service quality performance measurements of MM programs were arrived at by measuring the perception among the respondents and comparing these through discriminant analysis in order to distinguish customers' perceptions. Discriminant analysis is statistical technique used in this research where the dependent attribute is based on sample schools and two school categories consist of excellent-accredited schools and learning-accredited schools.

Discriminant analysis involves deriving a variate, the linear combination of the independent attributes that will discriminate best between a priori defined groups (Hair et. al., 1998). Discrimination is achieved by setting discriminant weights for each attribute to maximize the between-group variance relative to the within-group variance using the Wilks' Lambda and F values. The result shows the high Wilks' Lambda and F values justifying the use of the model, as may be seen in Table 22.



De La Salle University

Table 22 - Tests of Equality of Group Means

Attributes	Wilks' Lambda	F	Sig.
Organizational leadership to encourage change	.825	13.330	.000
Organizational leadership for commitment	.737	22.491	.000
Public responsibility on unity of purpose	.774	18.370	.000
Strategy development comprehensive planning process	.724	24.072	.000
Strategy development on operational capabilities	.805	15.303	.000
Knowledge of customers' current and future requirements	.741	21.974	.000
Knowledge of customer requirements are understood	.762	19.692	.000
Customer satisfaction regularly measured	.830	12.874	.000
Customer satisfaction to initiate improvements	.901	6.942	.000
Measurement of performance of competitors' service	.845	11.589	.000
Information management to ensure reliability	.959	2.673	.002
Well-being and satisfaction regularly measured	.791	16.609	.000
Education designed to measure quality of service	.796	16.166	.000
Student services standardized in operating procedures	.871	9.302	.000
Fast and convenient enrolment procedures	.939	4.114	.000
Competencies of faculty	.904	6.652	.000
Programs easily followed	.946	3.570	.000
Student learning results have value gain	.939	4.060	.000

There are 18 attributes identified with significant ability to discriminate the group of schools, at lower than .05 significance level. Based on the result of the discriminant analysis, the structure matrix in and classification function coefficients



De La Salle University

give the attributes which are the most efficient in discriminating between schools, as shown in Table 23.

Table 23 - Structure Matrix

ATTRIBUTES	FUNCTIONS										
	1	2	3	4	5	6	7	8	9	10	11
Customer satisfaction regularly measured	.399*	.168	-.057	.113	.317	.059	.050	.346	.383	-.277	.033
Strategy development comprehensive planning process	.157	.740*	-.097	.206	.250	.081	.046	-.215	.279	-.019	.159
Well being and satisfaction regularly measured	-.080	.613*	-.228	-.130	.073	.053	-.238	.164	-.097	.108	-.013
Education design to measure the quality of service	-.149	.567*	-.215	.191	.269	-.070	-.221	.148	.314	.097	-.170
Public responsibility on unity of purposes	.291	.556*	.013	-.211	-.088	-.056	-.085	.334	.331	.202	-.061
Knowledge of customers' current and future requirements	.430	.482*	.103	.122	.108	.097	-.074	.412	-.166	-.254	.062
Student services standardized for operating procedures	-.106	.436*	-.082	-.068	.178	.402	-.165	.062	.196	-.381	-.145
Strategy deployment on operational capabilities	.352	.403*	-.109	.042	.154	-.270	.196	-.207	.235	-.115	-.044
Organizational leadership for commitment	.305	.491	.539*	-.036	.155	.030	-.001	-.014	.207	.177	-.070
Knowledge customer requirements are understood	.445	.270	-.138	.531*	-.210	.297	-.178	.011	.061	.001	-.293
Measurements of performance competitors service	-.221	.353	-.171	.408*	.285	.362	-.128	.228	-.031	.100	.044
Programs easily followed	-.133	.098	.019	.362*	.212	-.210	.279	.041	-.075	.119	.194
Fast and convenience enrolment procedure	.123	.043	-.135	.163	.451*	-.236	-.370	.348	-.216	.048	.032
Information management to ensure the reliability	-.009	.149	-.145	-.078	.278	.319*	-.242	.127	.313	.167	-.159
Student learning results in value gain	.140	.083	-.168	.130	.185	.236	.612*	.328	-.037	.402	.038
Customer satisfaction to initiate improvements	-.147	.302	-.015	.342	-.144	.037	-.097	.474*	.392	-.150	.164
Organizational Leadership to encourage change	.039	.479	.374	.262	.177	-.028	.100	.187	.103	.009	-.561*
Competencies of faculty	.219	.070	.283	.268	.182	.240	-.248	.165	.224	.106	.302*

NOTE: * Largest absolute correlation between each attribute and any discriminant function



De La Salle University

The attributes which have strong correlation with corresponding functions are:

- | | | |
|-------------|---|--|
| Function 1 | : | Customer satisfaction regularly measured. |
| Function 2 | : | Strategy development comprehensive planning process,
Well-being and satisfaction regularly measured,
Education designed to measure the quality of service,
Public responsibility on unity of purposes,
Knowledge of customers' current and future requirements,
Student services standardized for operating procedures,
Strategy deployment on operational capabilities. |
| Function 3 | : | Organizational leadership for commitment. |
| Function 4 | : | Knowledge that customer requirements are understood,
Measurements of performance of competitors service,
Programs easily followed. |
| Function 5 | : | Fast and convenient enrolment procedure. |
| Function 6 | : | Information management to ensure reliability. |
| Function 7 | : | Student learning results in value gain. |
| Function 8 | : | Customer satisfaction to initiate improvements |
| Functions 9 | : | NONE |
| Function 10 | : | NONE |
| Function 11 | : | Organizational leadership to encourage change,
Competencies of faculty. |



De La Salle University

The above attributes were then subjected to cross tabulation of the performance of the sampled schools and the importance of such attributes as perceived by the different customers or stakeholders of the MM program. The values were obtained from the score of schools as rated by the different groups of respondents and the average performance computed by dividing the total score by the number of respondents for each attribute. Then the average performance was compared to the ideal performance score as given in the modified Baldrige-SERVQUAL model.

Further discriminant analysis for the two groups of schools, excellent-accredited and learning-accredited, found that only 5 attributes are identified with significant ability to discriminate the two group of schools at lower than .05 significance level. The result of the discriminant analysis and the classification function coefficients, give the attributes which are the most efficient in discriminating between the two groups of schools, as shown in Table 24.

Table 24 - Canonical Discriminant Function Coefficients

Attributes	Wilks Lambda	F	sig	Function	
				excellent	learning
Strategy development comprehensive planning process	0.944	41.582	0.000	1.662	1.174
Knowledge of customer requirements are understood	0.914	33.019	0.000	0.692	0.290
Customer satisfaction regularly measured	0.876	33.072	0.000	0.595	0.350
Measurement of performance of competitors' service	0.866	27.118	0.000	1.377	1.917
Student services standardized in operating procedures	0.858	23.137	0.000	2.123	2.438



De La Salle University

The resulting figures on the performance of the sampled schools are shown in Table 25. The ranking of each attribute is sorted out based on the % performance of the average rating against the ideal score. The difference of the performance score from 100% represents the gap between the ideal and the actual performance and indicates the areas for prioritized attention.

Adopting from Baldrige (NIST, 2002), this researcher provides the scoring guideline for categorizing the performance of schools. This scoring identifies the category of school performance in accordance with the following equivalent ratings:

PERCENT	EQUIVALENT
0%	There are no results or poor results in areas reported.
01 – 20%-	Good performance levels in a few areas.
21 – 40%	Good performance levels are reported in many areas.
41 – 60%	Good performance levels are reported in most of areas.
61 – 80%	Current performance is good in areas of importance.
81 – 100%	Current performance is very good in most areas of importance.

The measurement of each attribute is obtained by dividing the ideal score by 5 (from Likert scale 1 to 5) then multiplying the result to each response from the questionnaire, as indicated in the table header, . The scores are shown in Table 25.



De La Salle University

Table 25 - Measurement of Performance as Perceived by Stakeholders

Attributes (1)	Stdnt (2)	Almni (3)	Facly (4)	Staff (5)	Empl (6)	Avg (7) (2+3+ 4+5+ 6) / 5	Ideal (8) See Table (7)/(8) 9	Prfrm (9)	Gap (9) – 100
Strategy deployment on operational capabilities	14.63	15.80	14.81	13.80	14.57	14.72	20	73.85	-26.15
Customer satisfaction regularly measured	11.02	11.37	10.37	11.80	10.98	11.11	15	73.93	-26.07
Organizational leadership for commitment	29.44	30.99	28.49	29.87	29.13	29.58	40	74.10	-25.90
Public responsibility on unity of purposes	14.61	16.27	14.88	14.07	14.72	14.91	20	74.35	-25.65
Customer requirements are understood	14.82	15.56	15.30	14.40	14.72	14.96	20	74.70	-25.30
Strategy development comprehensive planning	14.53	16.77	14.60	15.20	14.34	15.09	20	74.78	-25.22
Knowledge of customers' current and future requirement	14.82	16.40	13.89	14.53	15.47	15.02	20	75.18	-24.82
Organizational leadership to encourage change	29.83	31.60	29.33	30.40	31.25	30.48	40	75.60	-24.40
Education designed to measure the quality of service	37.81	39.33	38.42	38.33	37.92	38.36	50	76.34	-23.66
Well being and satisfaction of faculty & staff	19.06	19.33	20.18	19.42	19.15	19.43	25	76.92	-23.08
Measurements of performance competitors service	19.17	20.17	19.65	19.50	17.83	19.26	25	77.20	-22.80
Information management to ensure reliability	31.31	30.32	31.02	32.53	31.55	31.35	40	78.10	-21.90
Customer satisfaction to initiate improvements	11.73	11.90	11.42	12.05	11.15	11.65	15	78.13	-21.87
Student services standardized for operating proc	15.82	16.30	15.51	16.60	15.92	16.03	20	79.75	-20.25
Fast and convenient enrolment procedure	20.67	20.38	19.82	20.33	19.53	20.15	25	81.76	-18.24
Student learning results in value gain	125.2	121.5	126.8	120.0	121.7	123.0	150	82.67	-17.33
Competencies of faculty	20.88	20.88	20.79	20.92	21.70	21.03	25	83.74	-16.26
Programs easily followed	21.42	19.75	21.14	21.08	21.04	20.89	25	84.23	-15.77



De La Salle University

Table 25 shows that the performance of schools fall below 81% in 14 out of the 18 attributes indicating a large room for improvement to achieve performance excellence. There are only four attributes where schools, in general, have satisfactory performance, namely:

1. Fast and convenient enrolment procedure,
2. Student learning results in value gain,
3. Competence of faculty, and
4. Programs easily followed.

Table 26 shows the measurement of the importance of the identified 18 attributes as perceived by the groups of survey respondents. The per cent importance was obtained by dividing the Average School Importance rating by the Ideal Importance rating.

There appears to be an approximate fit in the measurement of the average school performance and the measurement of importance of the attributes as shown in Tables 25 and 26. Table 26 shows that the importance of schools fall below 81% in 16 out of the 18 attributes indicating a large room for improvement to achieve performance excellence. Using the same scoring guide as applied to the performance measurement there are two attributes that are rated as highly important by the respondents with the gap less than 20, namely student services standardized for operating procedures and organizational leadership to encourage change.



De La Salle University

Table 26 - Measurement of Importance of Attributes as Perceived by Stakeholders

Attributes (1)	Stdnt (2)	Almni (3)	Faclty (4)	Staff (5)	Empl (6)	Avg (7) (2+3+ 4+5+ 6) / 5	Ideal (8) See Table 9	Prfrm (9)	Gap (9) – 100
Customer satisfaction regularly measured	10.42	10.99	10.63	10.75	10.92	10.74	15	71.61	-28.39
Customer satisfaction to initiate improvements	10.36	10.84	10.89	10.75	11.49	10.87	15	72.44	-27.56
Knowledge customer requirements are understood	14.01	14.59	14.53	13.87	16.15	14.63	20	73.15	-26.85
Programs easily followed	17.45	19.03	18.77	18.00	19.34	18.52	25	74.07	-25.93
Organizational leadership for commitment	27.98	32.20	28.91	30.40	30.49	30.00	40	74.99	-25.01
Strategy deployment on operational capabilities	14.76	15.13	15.02	15.40	15.32	15.13	20	75.63	-24.37
Fast and convenient enrolment procedure	18.46	18.78	19.47	18.25	19.62	18.92	25	75.66	-24.34
Knowledge of customers' current and future requirements	15.22	15.90	14.67	14.67	16.38	15.37	20	76.84	-23.16
Strategy development comprehensive planning process	15.24	15.80	15.02	14.87	16.00	15.39	20	76.93	-23.07
Well being and satisfaction regularly measured	19.18	19.20	19.39	19.25	19.81	19.37	25	77.46	-22.54
Information management to ensure the reliability	31.44	30.66	30.74	31.07	31.70	31.12	40	77.81	-22.20
Student learning results in value gain	115.0	117.0	117.9	111.5	122.3	116.7	150	77.82	-22.18
Competencies of faculty	18.79	20.55	18.95	18.92	20.09	19.46	25	77.84	-22.16
Public responsibility on unity of pupurposes	15.43	16.54	15.86	14.93	15.09	15.57	20	77.85	-22.15
Education designed to measure the quality of service	40.10	37.90	39.12	39.50	40.57	39.44	50	78.88	-21.12
Measurements of performance competitors service	19.95	19.03	20.44	19.50	20.09	19.80	25	79.21	-20.79
Student services standardized for operating procedures	15.82	16.24	15.79	15.93	17.13	16.18	20	80.91	-19.09
Organizational leadership to encourage change	31.69	32.54	31.86	33.87	32.75	32.54	40	81.36	-18.65



De La Salle University

Service Quality Performance of Programs Using Identified Performance Measurements

To measure the service quality performance of schools/programs the gap analysis was used which compared the performance perception of stakeholders against the established standards. The standard score points used is a modified combination of Baldrige and SERVQUAL with the ideal total score, based on the measurement points, of 1500.

The gap for each attribute was obtained by comparing the mean of importance indicators and performance indicators using paired sample method to test the research hypothesis that there is significant difference among the service quality importance and the performance achievement of service quality for Master in Management programs.

The performance-importance matrix was then developed to obtain a visualized pattern of performance and importance of attributes among schools as shown in Figure 7. The matrix contains four quadrants of positions. The quadrant of axis resulted from the difference between the actual performance and the mean of all performance of schools. While the quadrant of ordinate resulted from the difference between the actual importance perceived by customers against the mean of all importances of schools. The representation of each quadrant is as follows:



De La Salle University

Quadrant I : high performance and high importance

Quadrant II : low performance and high importance

Quadrant III : low performance and low importance

Quadrant IV : high performance and low importance

In order to get the data for each quadrant, the value of attribute scores from the discriminant factors were identified. Data were obtained by averaging the responses in the specific attribute, based on the quadrant position. The result is shown in Table 27.

Table 27 - Discriminant Function

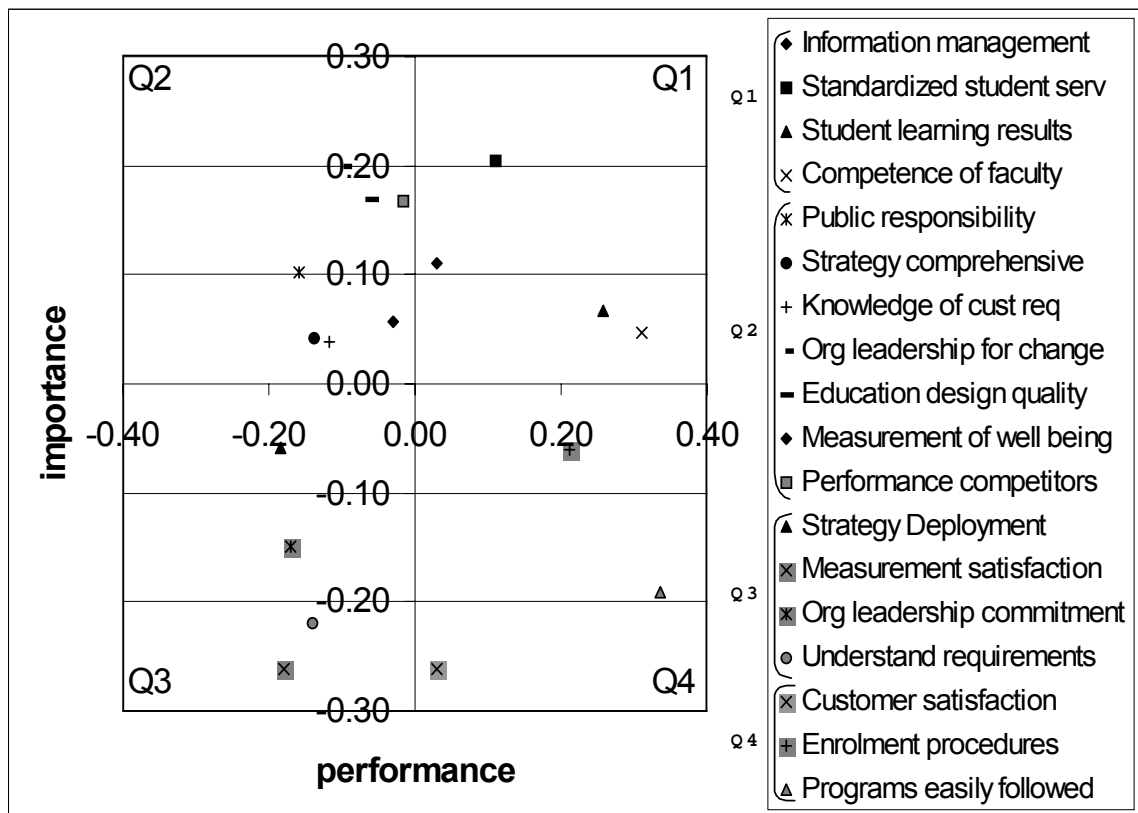
Quadrant	Discriminant Function	Factor	Performance	Importance
I	Information management to ensure the reliability	1	3.90	3.90
	Standardized student service	1	3.99	4.00
	Student learning results value gain	4	4.13	3.86
	Competence of faculty	8	4.19	3.84
II	Public responsibility on unity of purposes	3	3.72	3.90
	Strategy development comprehensive planning process	5	3.74	3.84
	Knowledge of customer current-future requirements	3	3.76	3.83
	Organizational leadership to encourage change	9	3.78	3.99
	Education design to measure quality of service	1	3.82	3.96
	Regular measurement of well being stakeholder	1	3.85	3.85
	Performance measurement competitors' service	1	3.86	3.96
III	Strategy Deployment on operational capabilities	5	3.69	3.73
	Regular measurement of stakeholder satisfaction	3	3.70	3.53
	Organizational Leadership for commitment	3	3.70	3.65
	Understanding requirements of customers	3	3.73	3.57
IV	Knowledge of customer satisfaction	1	3.91	3.53
	Enrolment procedures	6	4.09	3.73
	Programs easily followed	2	4.21	3.60
Average			3.88	3.79



De La Salle University

The gaps in performance were obtained by subtracting the performance value from the performance mean. While the gap analysis for importance were obtained by subtracting the importance value from the importance mean. The result of the calculations were then put into graphical matrix to visualize the quadrants as shown in Figure 7. The result of the matrix will be useful for designing operations strategy.

Figure 7 - Performance-Importance Matrix of Attributes





De La Salle University

Figure 7 the Performance-Importance-Matrix of attributes show the stakeholders' perception based on Table 27 of the attributes in Quadrant I as those of high performance and high importance (higher than average values), namely:

- Information management to ensure the reliability,
- Student services standardized for operating procedures,
- Student learning results in value gain, and
- Competencies of faculty.

Attributes in Quadrant II reflects those that are of low performance but are of high importance and needs urgent attention. These are:

- Public responsibility on unity of purposes,
- Strategy development comprehensive planning process,
- Knowledge of customers' current and future requirements,
- Organizational leadership to encourage change,
- Education designed to measure the quality of service,
- Well being and satisfaction regularly measured, and
- Measurements of performance competitors service.



De La Salle University

Quadrant III includes attributes that are of low performance and low importance and are of last priority, but nevertheless, needs attention. These are:

- Strategy deployment on operational capabilities,
- Regular measurement of stakeholder satisfaction,
- Organizational leadership for commitment,
- Knowledge customer requirements are understood.

Attributes in Quadrant IV are of high performance but are of low importance and are of low priority attention. These include the following:

- Customer satisfaction to initiate improvements,
- Fast and convenience enrolment procedure,
- Programs easily followed

Characteristics of Schools as Perceived by Respondents

The characteristics of schools as perceived by respondents was developed by conducting the measurement of identified attributes to the excellent-accredited



De La Salle University

schools and learning-accredited schools in the 18 attributes as shown in Tables 28-29 and Figures 11-12.

Table 28 shows the gap analysis of Identified Attributes for Excellent-Accredited Schools. The ranking of each attribute is sorted out based on the % performance of the average rating against the ideal score.

Table 28 - Gap Analysis in Identified Attributes for Excellent-Accredited Schools

Excellent-Accredited Description (1)	Value			Gap %	
	Ideal (2)	Performance (3)	Importance (4)	Performance 100 - (3)/(2)	Importance 100 - (4)/(2)
Measurements of Performance competitors service	25	18.75	19.74	24.98	21.06
Education Design to measure the quality of service	50	38.04	39.53	23.93	20.93
Well Being and Satisfaction regularly measured	25	19.14	19.49	23.43	22.06
Organizational Leadership to encourage change	40	30.78	32.15	23.05	19.63
Strategy Development comprehensive planning process	20	15.50	15.68	22.49	21.62
Information Management to ensure the reliability	40	31.03	31.68	22.43	20.81
Organizational Leadership for commitment	40	31.08	31.05	22.31	22.37
Customer satisfaction to initiate improvements	15	11.67	11.03	22.18	26.48
Regular measurement of stakeholder satisfaction	15	11.78	10.97	21.50	26.85
Public Responsibility on unity of purposes	20	15.74	15.85	21.31	20.75
Student Services standardized for operating procedures	20	15.75	16.21	21.25	18.94
Strategy Deployment on operational capabilities	20	15.80	15.17	21.00	24.17
Knowledge customer requirements are understood	20	15.85	15.07	20.75	24.67
Knowledge of customers' current and future requirements	20	15.91	15.88	20.44	20.62
Fast and convenience enrolment procedure	25	20.62	19.31	17.51	22.74
Programs easily followed	25	20.95	18.66	16.20	25.36
Student Learning Results value gain	150	125.89	121.31	16.07	19.13
Competencies of faculty	25	21.23	20.42	15.08	18.32
Total	595	475.5	469.2	20.9	22.0



De La Salle University

The difference of the performance score from 100% represents the gap between the ideal and the actual performance and indicates the areas for prioritized attention. It is indicated that the performance attributes for excellent-accredited schools do not necessarily conform with the overall combined measurement for all schools.

Figure 8 gives the gap analysis from Table 28 between the ideal and the actual rating of the performance attributes in excellent-accredited schools and shows the stakeholders' perception of the attributes in Quadrant I as those of high performance and high importance, namely:

- Knowledge of customers' current and future requirements
- Student learning results have value gain
- Competence of faculty

Attributes in Quadrant II reflect those that are of low performance but are of high importance and needs urgent attention. These are:

- Measurement of performance of competitors' service
- Education designed to measure quality of service



De La Salle University

- Organizational leadership to encourage change
- Strategy development comprehensive planning process
- Information management to ensure reliability
- Public responsibility on unity of purpose
- Student services standardized in operating procedures

Quadrant III includes attributes that are of low performance and low importance and are of last priority, but nevertheless, needs attention. These are:

- Well-being and satisfaction regularly measured
- Organizational leadership for commitment
- Customer satisfaction to initiate improvements
- Customer satisfaction regularly measured
- Strategy development on operational capabilities

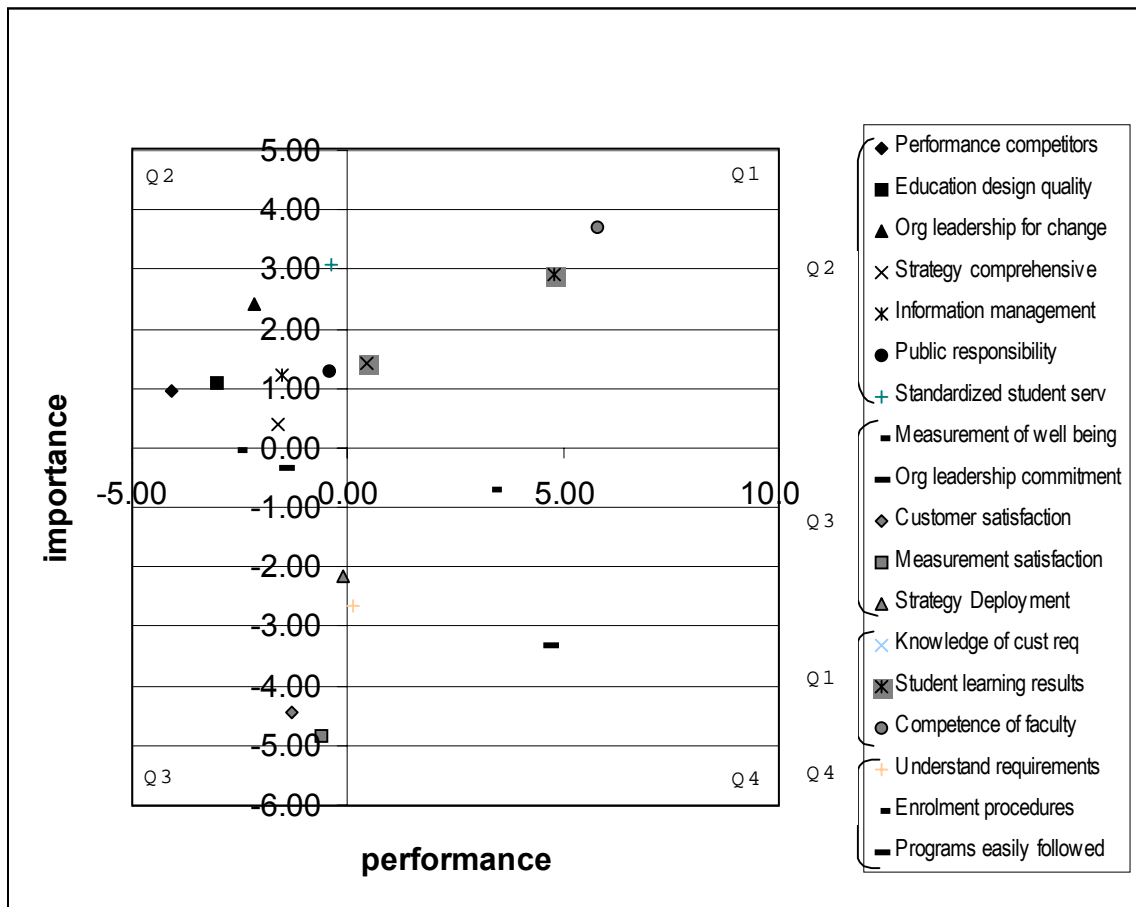
Attributes in Quadrant IV are of high performance but are of low importance and are of low priority attention. These include the following:

- Knowledge of customer requirements are understood
- Fast and convenient enrolment procedures
- Programs easily followed



De La Salle University

Figure 8 - Performance-Importance Matrix of Measurements in Excellent-Accredited Schools



Meanwhile the respondents in the learning-accredited schools surveyed in the 18 attributes show that they are less attributes in Quadrant II than the respondents from excellent-accredited schools.



De La Salle University

Table 29 shows the gap analysis of identified attributes for learning-accredited schools. The ranking of each attribute is sorted out based on the % performance of the average rating against the ideal score. The difference of the performance score from 100% represents the gap between the ideal and the actual performance and indicates the areas for prioritized attention.

Table 29 - Gap Analysis in Identified Attributes for Learning-Accredited Schools

Learning-Accredited Description (1)	Value			Gap %	
	Ideal (2)	Performance (3)	Importance (4)	Performance 100 - (3)/(2)	Importance 100 - (4)/(2)
Strategy Deployment on operational capabilities	20	13.91	14.75	30.47	26.25
Regular measurement of stakeholder satisfaction	15	10.52	10.29	29.90	31.41
Public Responsibility on unity of purposes	20	14.15	15.36	29.27	23.18
Knowledge customer requirements are understood	20	14.18	13.66	29.11	31.72
Organizational Leadership for commitment	40	28.44	27.58	28.91	31.04
Knowledge of customers' current and future requirements	20	14.30	14.88	28.49	25.63
Strategy Development comprehensive planning process	20	14.50	15.06	27.50	24.69
Organizational Leadership to encourage change	40	29.79	31.77	25.52	20.57
Education Design to measure the quality of service	50	38.28	39.71	23.44	20.57
Well Being and Satisfaction regularly measured	25	19.31	19.06	22.76	23.75
Customer satisfaction to initiate improvements	15	11.76	10.24	21.61	31.72
Information Management to ensure the reliability	40	31.42	30.88	21.46	22.81
Measurements of Performance competitors service	25	19.77	19.87	20.94	20.52
Student Services standardized for operating procedures	20	16.11	15.81	19.43	20.94
Fast and convenience enrolment procedure	25	20.29	18.13	18.85	27.50
Student Learning Results value gain	150	122.42	111.25	18.39	25.83
Competencies of faculty	25	20.69	18.19	17.24	27.24
Programs easily followed	25	21.15	17.47	15.42	30.10
Total	595	461.0	444.0	23.8	25.9



De La Salle University

Figure 9 gives the performance-importance matrix of attributes from Table 29 showing the stakeholders' perception of the attributes in Quadrant I as those of high performance and high importance, namely:

- Education designed to measure quality of service
- Well-being and satisfaction regularly measured
- Information management to ensure reliability
- Measurement of performance of competitors' service
- Student services standardized in operating procedures
- Student learning results have value gain

Attributes in Quadrant II reflects those that are of low performance but are of high importance and needs urgent attention. These are:

- Public responsibility on unity of purpose
- Knowledge of customers' current and future requirements
- Strategy development comprehensive planning process
- Organizational leadership to encourage change

Quadrant III includes attributes that are of low performance and low importance and are of last priority, but nevertheless, needs attention. These are:



De La Salle University

- Strategy development comprehensive planning process
- Customer satisfaction regularly measured
- Knowledge of customer requirements are understood
- Organizational leadership for commitment

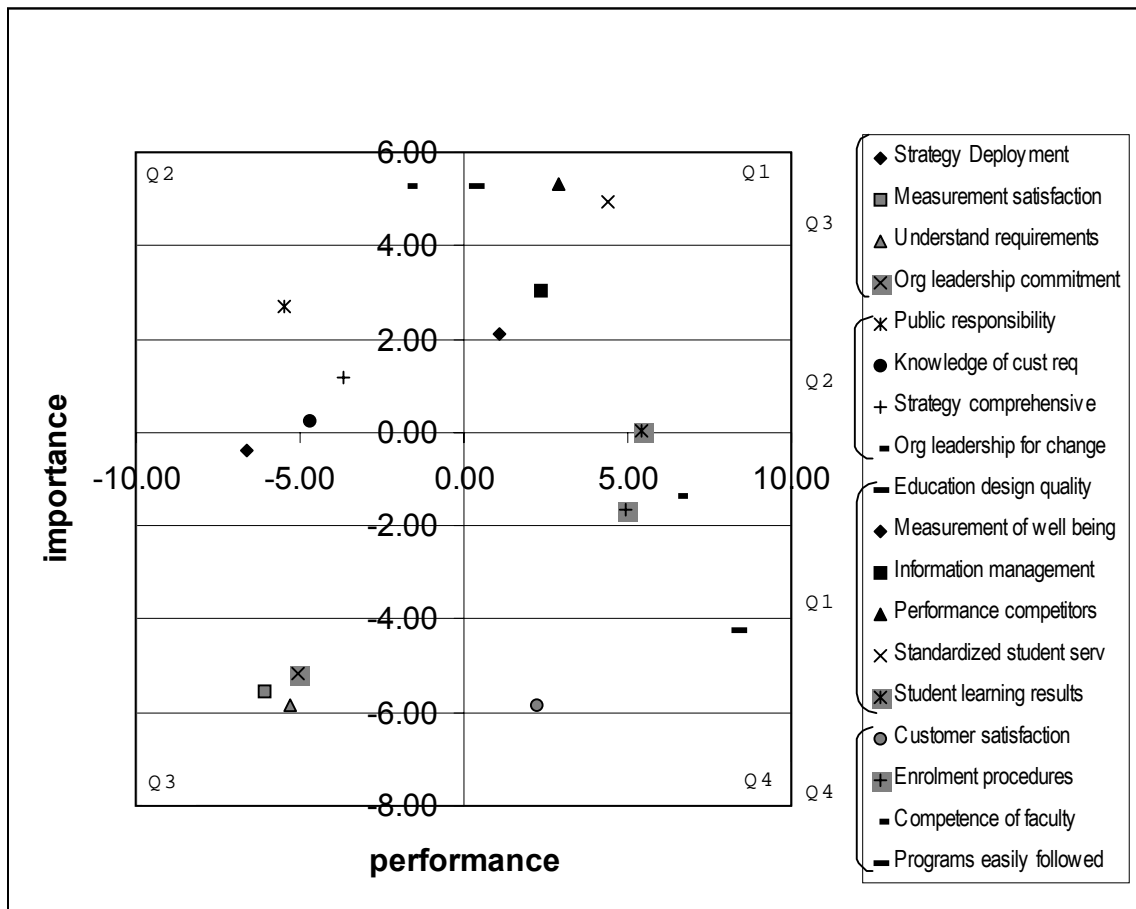
Attributes in Quadrant IV are of high performance but are of low importance and are of low priority attention. These include the following:

- Customer satisfaction to initiate improvements
- Fast and convenient enrolment procedures
- Competence of faculty
- Programs easily followed



De La Salle University

Figure 9 - Performance-Importance of Measurements Matrix in Learning-Accredited Schools



The result of the foregoing analysis indicates that there are similarities and differences of performance and importance as shown in the comparison in Table 30. The schools surveyed in the 18 attributes based on Tables 28-29 showed that the respondents of excellent-accredited schools are higher in quality of performance than the respondents from learning-accredited schools.



De La Salle University

Table 30 - Comparison of Characteristics of Schools

EXCELLENT-ACCREDITED (EA)	LEARNING-ACCREDITED (LA)	ALL SCHOOLS
Q1	Q1	Q1
Knowledge of customers' current and future requirements <i>Student learning results have value gain</i> Competence of faculty	Education designed to measure quality of service Well-being and satisfaction regularly measured Information management to ensure reliability Measurement of performance of competitors Student services standardized in operating procedures <i>Student learning results have value gain</i>	<i>Information management to ensure the reliability – LA</i> <i>Standardized student service – LA</i> <i>Student learning results value gain – EA, LA</i> <i>Competence of faculty – EA</i>
Q2	Q2	Q2
Measurement of performance of competitors Education designed to measure quality of service <i>Organizational leadership to encourage change</i> <i>Strategy development comprehensive planning process</i> Information management to ensure reliability <i>Public responsibility on unity of purpose</i> Student services standardized in operating procedures	<i>Public responsibility on unity of purpose</i> Knowledge of customers' current and future requirements <i>Strategy development comprehensive planning process</i> <i>Organizational leadership to encourage change</i>	<i>Public responsibility on unity of purposes – EA, LA</i> <i>Strategy development comprehensive planning process – EA, LA</i> <i>Knowledge of customer current-future requirements – LA</i> <i>Organizational leadership to encourage change – EA, LA</i> <i>Education design to measure quality of service – EA</i> Regular measurement of well being stakeholder <i>Performance measurement competitors' service – EA</i>
Q3	Q3	Q3
Well-being and satisfaction regularly measured <i>Organizational leadership for commitment</i> Customer satisfaction to initiate improvements <i>Customer satisfaction regularly measured</i> <i>Strategy development on operational capabilities</i>	<i>Strategy development on operational capabilities</i> <i>Customer satisfaction regularly measured</i> Knowledge of customer requirements are understood <i>Organizational leadership for commitment</i>	<i>Strategy Deployment on operational capabilities – EA</i> <i>Customer satisfaction regularly measured – EA, LA</i> <i>Organizational Leadership for commitment – EA, LA</i> <i>Understanding requirements of customers – LA</i>
Q4	Q4	Q4
Knowledge of customer requirements are understood <i>Fast and convenient enrolment procedures</i> <i>Programs easily followed</i>	Customer satisfaction to initiate improvements <i>Fast and convenient enrolment procedures</i> Competence of faculty <i>Programs easily followed</i>	<i>Knowledge of customer satisfaction – EA</i> <i>Enrolment procedures – EA, LA</i> <i>Programs easily followed – EA, LA</i>

Note : the italics indicate similarities of attributes for both categories of schools in the same quadrant.



De La Salle University

Based on Table 30, both category of excellent-accredited and learning-accredited schools must prioritize to improve performance on the following:

- Organizational leadership to encourage change,
- Strategy development comprehensive planning process,
- Public responsibility on unity of purpose.

The next priority strategy is to sustain achieved results in the following:

- Organizational leadership for commitment,
- Customer satisfaction regularly measured, and
- Strategy development on operational capabilities.

Both categories also have high performance on fast enrollment procedure, easily followed programs and student learning results value gain

Comparing quadrant I and IV against other quadrants, shows the attributes with high performance in excellent-accredited schools but low performance in learning-accredited schools, which are the following:

- Knowledge of customers' current and future requirements, and
- Knowledge of customer requirements are understood.



De La Salle University

On the other hand, attributes with high performance in learning-accredited schools but low performance in excellent-accredited schools are:

- Education designed to measure quality of service,
- Measurement of performance of competitors,
- Information management to ensure reliability,
- Student services standardized in operating procedures, and
- Customer satisfaction to initiate improvements.

This result of this low performance of excellent-accredited schools but high performance of learning-accredited schools is a relative perception of respondents. Actually, the absolute performance of excellent-accredited schools is higher than that of learning-accredited schools as shown in Table 28 and Table 29, where the total performance scores are 475.5 and 461.0, respectively. However it is difficult to argue on the basis of absolute performance since the analysis is done on as per attribute basis.

Comparing quadrants I and II against other quadrants shows the attribute with high importance in excellent-accredited schools but low importance in learning-accredited schools, which is the competence of faculty. On the other hand, attributes with high importance in learning-accredited schools but low importance in excellent-accredited schools is in the regular measurement of well being and satisfaction of faculty and staff.



Operations Strategy to Increase Overall Service Quality Performance of Master in Management Programs of Private Schools In Jakarta.

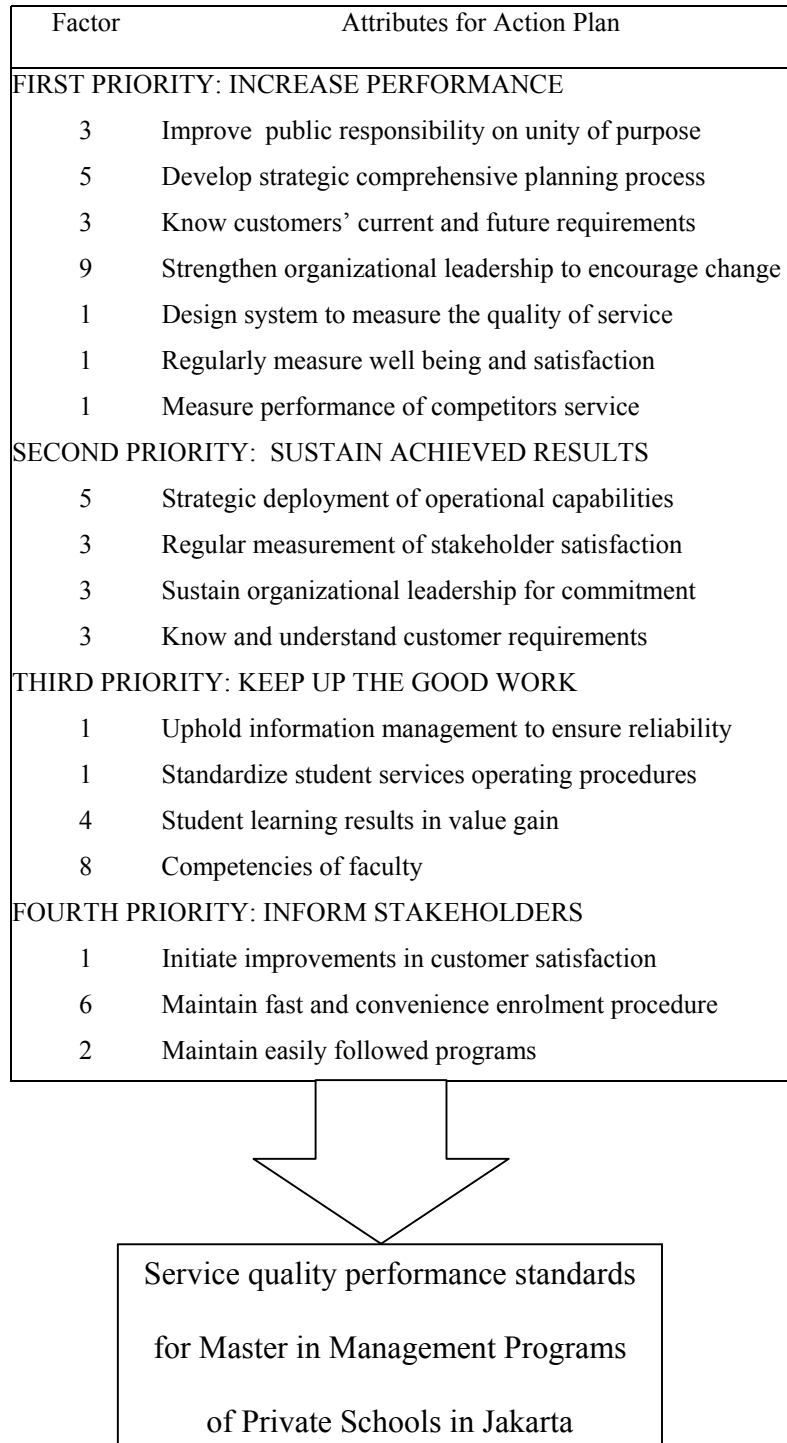
The strategy proposed herein is designed to help schools use an integrated approach to operational performance management. The strategy is built upon the following set of interrelated attributes which resulted in the nine factors and eighteen attributes consecutively listed in accordance with their values to the groups of respondents.

These values and concepts, are illustrated in Figure 10 which represent embedded beliefs and behaviors found in MM schools and are identified as the foundation for integrating key requirements within a results-oriented framework to creates a basis for action and feedback. The nine factors were transformed into a prioritized operational strategy for detailed implementation in accordance with descending priorities as identified in the matrix analysis, according to the degree of prioritized attributes.

The major determinant factors for operations strategy to increase the quality of MM Programs in private schools in Jakarta, are categorized in accordance with the level of urgency.



Figure 10 - Prioritized Approach to Increase Quality





De La Salle University

The first priority attributes evolve from the six Baldrige categories that define the organization, its operations, and its results. Leadership, strategic planning, and student, stakeholder and market focus represent the leadership triad in the Baldrige. These categories are very important to emphasize the importance of leadership on strategy, students, and stakeholders. Senior leaders set the school direction, create a learning environment for the organization, and seek future opportunities for the organization.

The second priority action sustains achieved results in the implementation of the first two and addresses organizational leadership, customer requirements and strategic deployment of operational capabilities.

The third priority focuses on the faculty and staff, empathy and responsiveness, and organizational performance which represent the results triad. The organization's faculty and staff and its key processes accomplish the work of the organization that yields the performance results. All actions must point toward organizational performance results – a composite of student, stakeholder, budgetary and financial aspects, and operational performance results, including faculty and staff results and public responsibility.

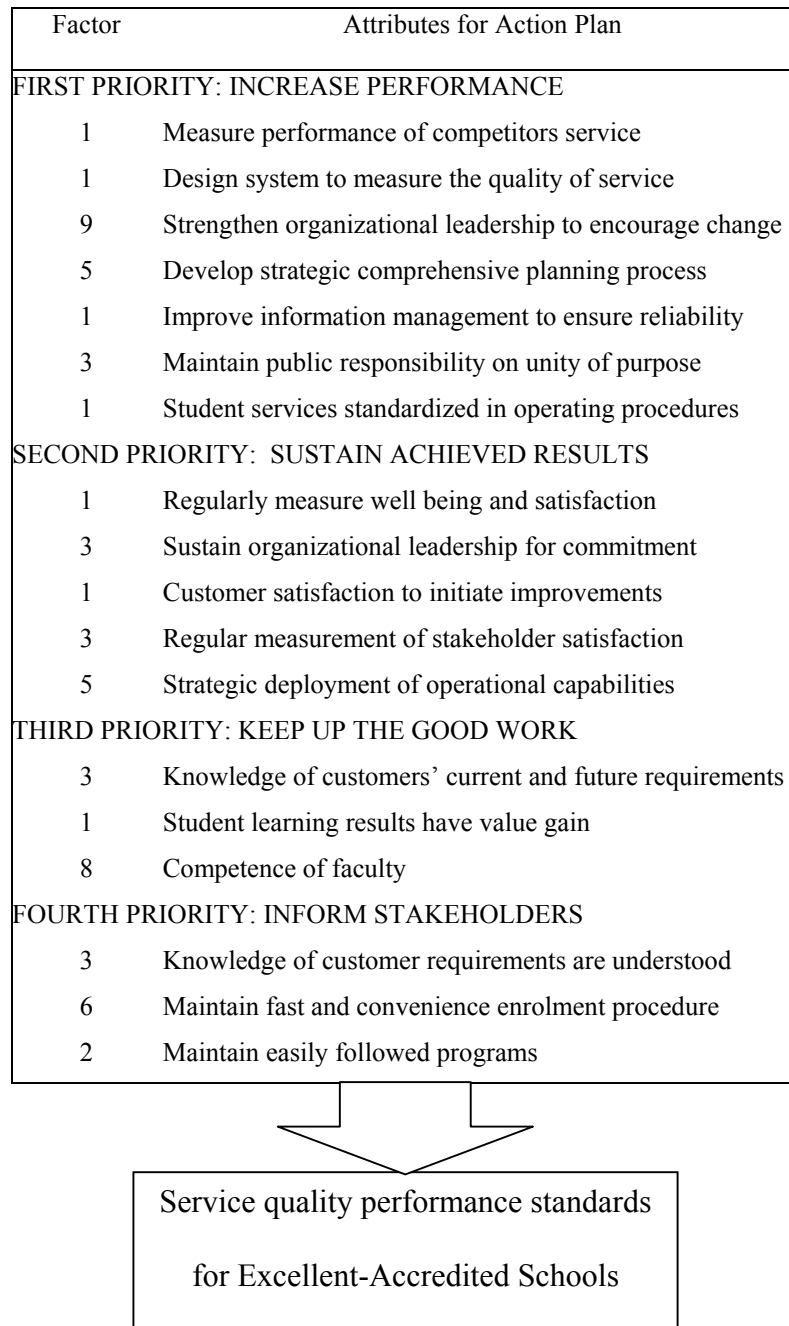
The fourth priority calls for the informing of stakeholders of the achieved positive results in addressing customer satisfaction, and providing easily followed programs and convenient enrolment procedures.



De La Salle University

The operations strategy for a more specific group of schools contain two strategy which differentiate between excellent-accredited schools and learning-accredited school.

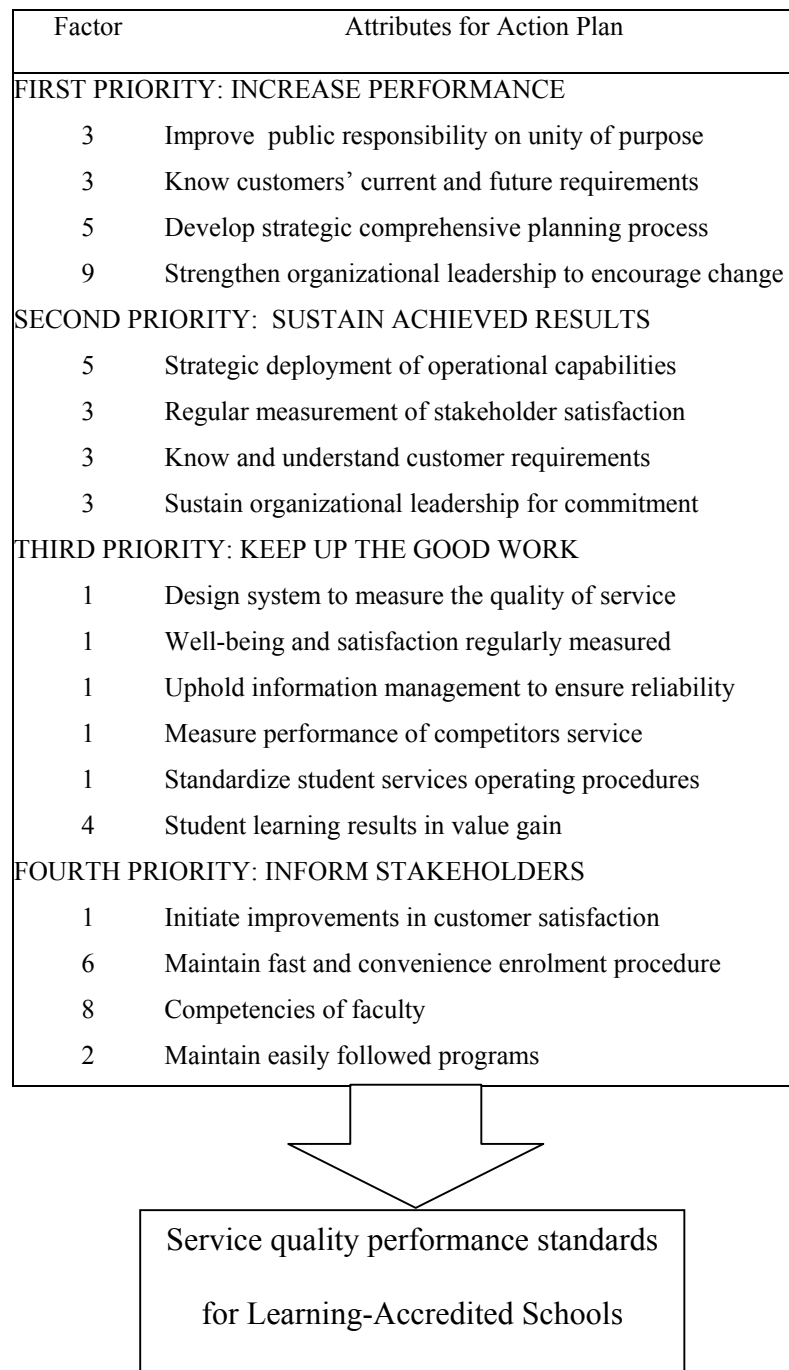
Figure 11 - Operations Strategy to Increase Quality for Excellent-Accredited Schools





De La Salle University

Figure 12 - Operations Strategy to Increase Quality for Learning-Accredited Schools

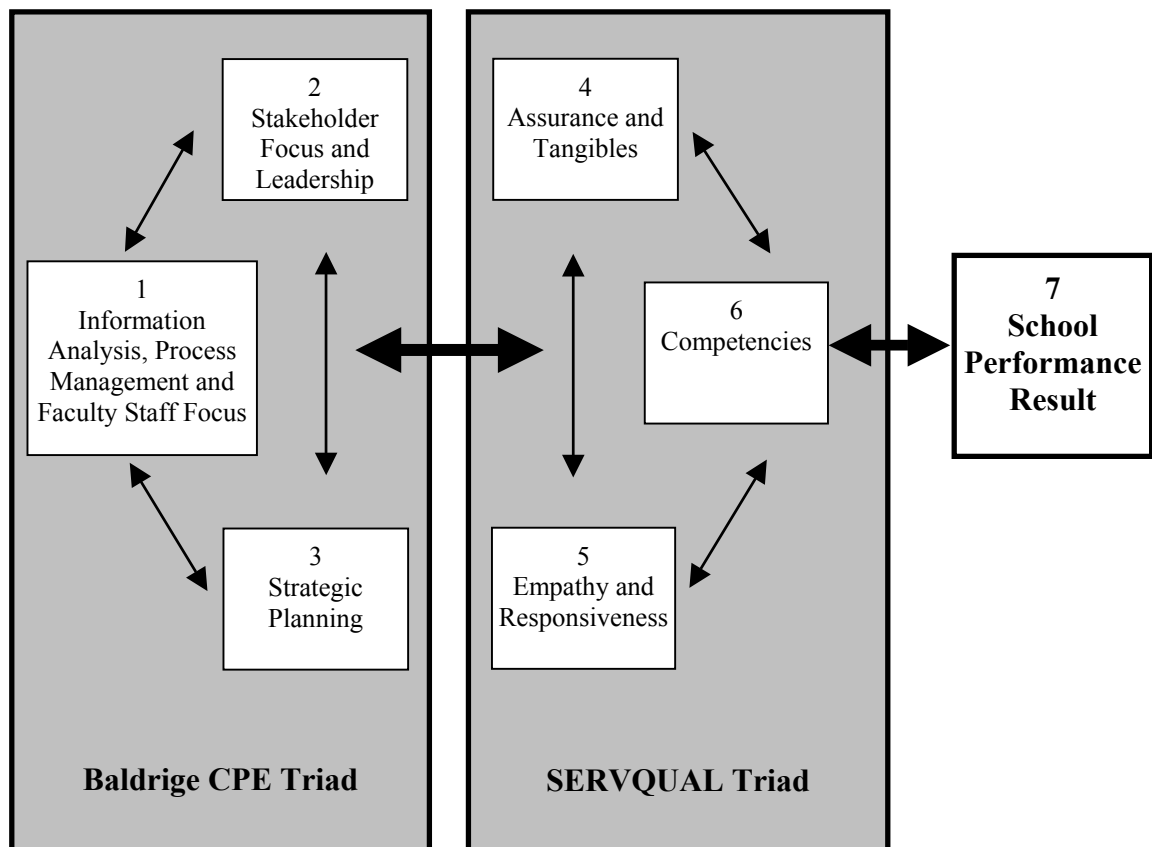




De La Salle University

For the overall operations strategy for Master in Management programs as a whole, the model from the prioritized approach on figure 10 is then adopted into the new model called Agung Model to connect the finding of the research to the theoretical concept.

Figure 13 - Agung Model of Combined CPE-SERVQUAL for MM Programs





De La Salle University

The Agung Model of Combined Baldrige CPE – SERVQUAL (Criteria for Performance Excellence – Service Quality) is built upon the three sets of interrelated core values and concepts:

- 1) Baldrige CPE Triad
- 2) SERVQUAL Triad, and
- 3) School Performance Result.

The Agung Model of Combined Baldrige CPE – SERVQUAL consists of a hierarchical set of categories, items, and areas to address. The seven categories associated with the model are:

- 1) Information analysis, process management and faculty staff focus,
- 2) Stakeholder focus and leadership,
- 3) Strategic planning,
- 4) Assurance and tangibles,
- 5) Empathy and responsiveness,
- 6) Competencies of faculty, and
- 7) School performance result.

The conceptual relationships between the various categories that comprise the Combined Baldrige CPE – SERVQUAL are portrayed in Figure 16.



De La Salle University

The system is composed of the three Baldrige categories in the left of the figure that defines drivers of the performance of schools, its service, and its results represent the Baldrige CPE Triad consist of:

- Factor 1: Information analysis, process management and faculty staff focus
- Factor 2: stakeholder focus and leadership
- Factor 3: strategic planning

These categories are placed together to emphasize the importance of criteria for performance excellence focus on information, process management, leadership, strategy and stakeholders.

The center of the figure defines quality service of the school and its results represent the SERVQUAL triad consist of:

- Factor 4: Assurance and tangibles,
- Factor 5: empathy and responsiveness, and
- Factor 6: Competencies

These categories are placed together to emphasize the importance of service quality for the schools.



De La Salle University

The school's service quality and its key process accomplish the work of the school that yields the school performance results (Factor 7). All actions point toward school performance results. The bold horizontal arrow in the framework links the Baldrige CPE triad to the SERVQUAL triad then to the school performance result, which represent a linkage critical to the school's success. The light arrow indicates the interdependence among categories. The two-headed arrow indicates the importance of feedback in an effective service quality measurement of Master in Management programs.

The proposed model may have major flaws since the respondents were not randomly selected. Instead, non probability/convenience sampling was used. Moreover, the study's results only identified 5 attributes that discriminated between the schools. The schools sampled did not include public schools so that this model might not be generalized for application in all Master in Management programs.

However, this model can be (as) a starting point in developing an operations strategy for Master in Management programs especially for the management of schools who wish to identify the gaps of performance and importance of attributes.



Chapter 5

DISCUSSION

The discussion is presented herein based on the findings in relation to the literature review while keeping in mind the objective of providing service quality in MM programs in private schools in Jakarta.

As a whole, this research partly supports the findings of Cook and Verma (2002), which demonstrated that an overall employee perception of quality management system in the organization is related to the service quality delivered to the customers. Among the seven quality management system constructs, leadership was found to be related to four, and market focus was found related to three SERVQUAL dimensions. The employee perceptions of service quality are related to operations performance.

The resulting factors identified in the research will be categorized as a bundle of attributes which discriminate among the schools, and support the findings of Murdick et. al. (1990) and Cook and Verma (2002), which explore the linkages between service of employees' perceptions of the quality management system used in the organization.



De La Salle University

The satisfaction of customers as related to service quality as stated by Nicholls et al (1998) developed parsimonious instruments based on research representing 15 industries. The resulting factors consist of 1) satisfaction with the personal service, 2) satisfaction with organizational system, and 3) satisfaction with personal security.

Factors which Discriminate Service Quality Performance Among Schools Offering Master in Management Programs

Factor 1 : Information Analysis Process and Faculty & Staff Focus

The determinants of the first factor for operations strategy to increase quality of MM Programs for Private Schools in Jakarta consist of information analysis process, and faculty/staff focus. The findings support the Baldrige CPE (NIST, 2002) criteria. Although the education strategy framework is intended to address all organizational requirements, including research and service, primary emphasis is placed on information analysis, teaching-learning process and faculty staff focus.

This factor indicates that funding schools and businesses provide avenues to channel the directions of much research. Numerous excellent forum and media must be considered for sharing research results. Much of the research performed in education schools involves students as part of their own overall education. Thus, the



De La Salle University

educational role of research is needed to be incorporated in the education strategy as part of information analysis, teaching-learning process and faculty staff focus. Other important aspects of research—faculty development and student/faculty recruitment—are also addressed in the strategy.

Factor 2 : Empathy and Responsiveness

The second factor of empathy and responsiveness support the findings of PZB (1991) which stated that responsiveness were virtually indistinguishable in the 5-factor solutions. In order to develop the fullest potential of all students, education schools need to offer opportunities for students to pursue a variety of avenues to success.

Learning-centered education supports this goal by placing the focus of education on learning and the real needs of students. Such needs derive from market and citizenship requirements. A learning-centered organization needs to fully understand these requirements and translate them into appropriate curricula and developmental experiences. For example, changes in technology and in national and world economies are creating increasing demands on employees to become knowledge workers and problem solvers, keeping pace with the rapid market changes. Most analysts conclude that to prepare students for this work environment, education schools of all types need to focus more on students' active learning and on



De La Salle University

the development of problem-solving skills.

Educational offerings also need to be built around effective learning, and effective teaching needs to stress promotion of learning and achievement. Learning-centered education is a strategic concept that demands constant sensitivity to changing and emerging student, stakeholder, and market requirements and to the factors that drive student learning, satisfaction, and persistence. It demands anticipating changes in the education environment, as well as rapid and flexible responses to student, stakeholder, and market requirements.

Factor 3 : Stakeholder Focus and Leadership

The third factor of student, stakeholder, and market focus and leadership supports the contention of Spanbauer (1995) which stated that the key concepts of TQM models are applicable in education namely: leadership, education and training, organizational climate, customer service, scientific methods and tools, meaningful data and team problem solving.

He further stated that an organization's senior leaders should set directions and create a student-focused, learning-oriented climate; clear and visible values; and high expectations. The directions, values, and expectations should balance the needs of all the stakeholders. The leaders should ensure the creation of strategies, systems, and methods for achieving excellence, stimulating innovation, and building



De La Salle University

knowledge and capabilities. The values and strategies should help guide all activities and decisions of the organization. Senior leaders should inspire and motivate all faculty and staff and should encourage them to contribute, to develop and learn, to be innovative, and to be creative.

He believes that senior leaders should serve as role models through their ethical behavior and their personal involvement in planning, communications, coaching, development of future leaders, review of organizational performance, and faculty and staff recognition. As role models, they can reinforce values and expectations while building leadership, commitment, and initiative throughout the organization. In addition to their important role within the organization, senior leaders have other avenues to strengthen education. Reinforcing the learning environment in the organization might require building community support and aligning community and business leaders and community services with this aim.

Factor 4 - School Performance Results

The factor of school performance results conforms with the findings of Mergen et. al. (2000) which showed that quality of design, quality of conformance and quality of performance have significance in application at Rochester Institute of Technology's College of Business. It provides a framework to identify research, teaching and operational improvement opportunities for student learning that results



in value gain.

An organization's performance measurement need to focus on key results. Results should be used to create and balance value for the students and key stakeholders—the community, employers, faculty, staff, suppliers, and partners. By creating value for students and stakeholders, the organization contributes to improving overall education performance and builds loyalty. To meet the sometimes conflicting and changing aims that balancing value implies, organizational strategy should explicitly include student and key stakeholder requirements. This will help ensure that actions and plans meet differing student and stakeholder needs and avoid adverse impacts on any students and/or stakeholders. The use of a balanced composite of leading and lagging performance measures offers an effective means to communicate short- and longer-term priorities, monitor actual performance, and provide a clear basis for improving results.

The importance-performance matrix analysis undertaken in this research supports the findings of Dion et al. (1998) who evaluated empirically the PZB service expectation model. The tested hypothesis indicated that customers' desired service levels was significantly higher than the obtained service level as incorporated in the first priority of the operations strategy.

This research enhances the study by Crosby (2003) using the time-based



De La Salle University

approach to determine the perceptions of quality by the currently enrolled students and alumni. There was no significant difference in quality perception between students and alumni. This indicated that most dimensions of quality and the customers' pursuant sense of satisfaction were permanently established at the time of exchange (transaction point). The alumni's perceptions of quality and value received were maintained after the transaction.

Some schools score well and others score poorly on the service quality scale. Perhaps the leadership environment is dominant for certain schools and less dominant for others. Perhaps the responsiveness in delivering service is a critical factor in customer satisfaction. Perhaps the reasons could be attributed to errors inherent in respondent perception of question design. This researcher admits that the explanation is speculative.

Factor 5 : Strategic Planning

The factor of strategic planning conforms with Rinehart (1993) who mentioned that strategic planning in organization must be actively involved in the accomplishment of the transformation. An organization's leader should stress its strategic planning. This strategic planning refers to basic expectations of the organization related to ethical practices and protection of public health, safety, and the environment. Planning should anticipate adverse impacts that might arise in



De La Salle University

facilities management, laboratory operations, and transportation. Ethical practices need to take into account proper use of public and private funds. Effective planning should prevent problems, provide for a forthright response if problems occur, and make available information and support needed to maintain public awareness, safety, and confidence. Strategic planning enables the formulation of long-term priorities, and it allows institutional changes to be tackled in a rational manner.

Ford and Evans (2000) demonstrated that the strategic planning framework represented by the CPE aligns considerably with the conceptual literature. Literature comparisons using other CPE categories in education are likely to yield similar findings. Their findings suggested some validity for the CPE framework, which demonstrated the translation of research into managerial practice. Therefore, research that supports the framework embodied in the CPE is grounded in research-based principles.

Factor 6 : Assurance and Tangibles

The factor of assurance and tangibles support the research of SERVQUAL in various service settings as pointed out by Steven et al. (1995), and Czaplewski et al. (2002). The Business Strategy for Performance Excellence use the generic term “customers” to describe the respondents of products or services. Although market success depends heavily on user preference, other stakeholders must be considered as



De La Salle University

well when setting overall organizational requirements. The convenience environment can make the customer happy. Assurance shows that the school gives a feeling of security and provides good environment to the customers.

Factor 7 : Reliability

The factor of reliability supports the research of SERVQUAL in various service settings as pointed out by Steven et al (1995), and Czaplewski et al (2002). Reliability of the service measures how administrative procedures are simple and easy to follow. Reliability of service reflects the simplicity, accuracy and ease in administrative procedures. Classes, specific assignments and examinations are done on time. and on-time schedule of classes, specific assignments and exams are followed.

Factor 8 : Competencies

Faculty competence is important for the students to assure them that the education process is well developed and implemented. Competencies means possession of the required skills and knowledge to perform service according to the research of Parasuman, Zeithmal and Berry in 1985 and which proposed competence as part of the conceptual framework for service quality.



De La Salle University

Factor 9 Organizational Leadership

Organizational leadership establishes the ability of the school to introduce change as called for by developments in teaching and other relevant technologies.

Operations Strategy Among Schools with MM Programs

The research identified eighteen areas to be addressed by an operating strategy which may be implemented in each category of school accreditation as perceived by the survey respondents. The strategy was developed from perceived weaknesses which were obtained from the Important–Performance Matrix. Discussed hereunder are said weaknesses and strengths in the order of similarities and differences between school category and indicating possible causes that may be addressed with the aim of overcoming such weaknesses and further strengthening identified strengths, based on the result of Tables 27-30 and Figures 7-9.

The similarities of attributes perceived by the stakeholders of the excellent-accredited and learning-accredited schools indicate actions that must be prioritized to improve performance on :



De La Salle University

1. **Organization Leadership to Encourage Change**

This attribute examines how the organization's leaders focus on the following issues:

- The need for a more emphatic stance on the part of the school leadership in encouraging change, the implementation of a culture of trust, involvement and commitment in moving towards best practices;
- Review of organizational performance and translating findings into priorities for improvement and opportunities for innovation; and
- Use of organizational performance review findings to improve their own leadership effectiveness and leadership system.

2. **Strategy Development for Comprehensive Planning Process**

This attribute covers the method by which the organization establishes its strategic objectives, including the addressing of key student and stakeholder needs. It includes the ability to enhance its performance relative to competitors, comparable schools, and enhancing overall performance. This factor addresses the following issues:

- Vague statement of the overall strategic planning process that includes key



De La Salle University

steps, key participants and short- and long-term planning horizons;

- Current and future student/stakeholder and market needs, expectations and opportunities, including student achievement;
- Key external factors, requirements and opportunities, including suppliers' and/or partners' strengths and weaknesses, the competitive environment, and capabilities relative to competitors, comparable schools, and/or appropriately selected organizations;
- Technological and other key changes that might affect services and operations;
- Strengths and weaknesses, including faculty and staff and other resources;
- Capability to assess student learning and development;
- Ethical, societal, budgetary and other potential risks.

3. Public Responsibility on Unity of Purpose

This aspect refers to how the organization addresses the responsibilities to the public and practices good citizenship and includes the following issues:

- The seeming lack of concern by the school in addressing the impacts on society if its operations, to include key processes, measures and targets for



De La Salle University

safety, regulatory accreditation and legal requirements and the risks associated with operations;

- The weak anticipation of public concerns with current and future services and operations;
- Ethical practices in all transactions and interactions with students and stakeholders are not given much weight.

The excellent-accredited and learning-accredited schools have low performance but also low importance to the stakeholders so the schools can sustain achieved results or improve performance for competitive advantage.

1. Organizational Leadership for Commitment

The respondents find weaknesses in the manner that school senior leaders display their commitment to learning through involvement in quality activities and the communication of quality values.

2. Regular Measurement of Stakeholder Satisfaction

The schools do not seem to have in place, a system of determining students' and stakeholder satisfaction and dissatisfaction that will gather



De La Salle University

information for improvement. Areas that need addressing are:

- Establishing of measurements that will capture actionable information that reflects organization's learning and developmental climate that will predict students' and stakeholders' future interactions with the school and/or potential for positive referral;
- Structured follow-up of interaction with students and key stakeholders to receive prompt and actionable feedback;

3. Strategy Deployment on Operational Capabilities

This element of the Strategic Planning factor indicates how the organization converts strategic objectives into action plans. In the first place, there must be clear strategic plans and identified key performance measures/indicators. The organization's future performance on these key measures/indicators must be clearly established. The survey respondents find the schools generally wanting in this aspect. The weaknesses are reflected in the following;

- School mission statement is not communicated throughout the school hence there is weak support by the staff;



De La Salle University

- There are no clear performance projections for key measures/indicators for both short- and long-term planning time horizons that will guide officers and staff in projecting their own plans geared towards the school operations;
- Projected performances are not systematically compared with that of competitors, comparable schools and appropriately selected organizations, key benchmarks, goals and past performances, as may be appropriate, thus curtailing the ability to formulate strategies that will sustain comparative quality of service;

Both category of excellent-accredited and learning-accredited have high performance on strategy deployment and operational capabilities.

1. Enrolment Procedures

Although this attribute was rated satisfactorily fast and convenient in the survey schools should be aware that such issue is relevant to the satisfaction of students and stakeholders, and must not be taken for granted.

2. Student Learning Results



De La Salle University

Likewise, the survey found this attribute as satisfactory since the alumni of the MM programs are valued by society. It is, however, wise to have an adequate summary of the organization's key learning results, segmented by student groups and market segments, as appropriate. There should be maintained a comparative data relative to competitors, comparable organizations, and student populations.

3. Programs

The survey found that school programs are easily followed by the students and the faculty. As another satisfactory aspect among the schools surveyed, consistent awareness in keeping programs easy to follow should be sustained.

The attributes with high performance in excellent-accredited schools but low performance in learning-accredited schools are :

1. Knowledge of Customers' Current and Future Requirements

This factor refers to the awareness of the organization of current and future requirements of its customers', and the use of information from



De La Salle University

current, former and future students, student segments and stakeholder to addresses the following issues:

- Offerings, facilities and services; demographic data and trends that may bear upon enrollments and needs;
- Changing requirements and expectations that graduates will face;
- Changing requirements and expectations resulting from national, regional, or local requirements; and
- Education alternatives available to the pool of future students.

2. Understanding Requirements of Customers

The school organization must determine the requirements, expectations and preferences of current and future students, stakeholders, and markets to ensure the continuing relevance of the educational programs and support services, to develop new opportunities, and to create an overall climate conducive to learning and development of students. Issues to be addressed are:

- Deficiency in knowledge of student and market needs and expectations;
- Absence of mechanism to determine students' general and special needs



De La Salle University

and expectations and their relative importance/value to students' and stakeholders' decision making for purposes of educational program and support service planning, marketing, improvements, and other service development;

- Weakness in keeping listening and learning methods current with educational service needs and directions.

On the other hand, attributes with high performance in learning-accredited schools but low performance in excellent-accredited schools are :

1. Education Design for Quality of Service

This attribute examines the key aspects of the learning-focused education design and delivery of quality service. It addresses the following issues:

- Design processes for educational programs and offerings and their delivery systems and processes;
- Assurance that programs and offerings address student educational, and developmental needs of students; focus on active learning;
- Incorporation of new technology, including e-technology, into educational



De La Salle University

programs and offerings and their related delivery systems and processes, as appropriate;

- Design processes address sequencing, linkages among educational programs and offerings, transfer of learning from past design projects and other parts of the organization, new design technology, cycle time, and other efficiency/effectiveness factors;
- Incorporation of measurement plans that makes effective use of formative and summative assessment; and
- Ensuring that faculty and staff are properly prepared to implement the educational programs and offerings.

2. Performance Measurement Against Competitors' Service

This attribute refers to the awareness of the school in the comparison of its services with those of other schools which will provide the basis for projections of continuous and breakthrough improvements in the future.

3. Information Management

Proper information management ensures the quality and availability of needed data and information for faculty and staff, students and stakeholders,



De La Salle University

and suppliers/partners. The following areas have to be addressed under this attribute:

- Data availability and accessibility to faculty, staff, students and stakeholders;
- Assurance of information integrity, reliability, accuracy, timeliness, security and confidentiality;
- Data and information availability mechanisms are current with educational service needs and directions;
- Hardware and software are reliable and user friendly; and
- Hardware and software systems are current with educational service needs and directions.

4. Standardized Student Services

The design and delivery of student services must be standardized to meet all key requirements of students. There must be key performance measures/ indicators used for the control and improvement of these services that include how in-process measures and feedback from students, faculty, staff members, stakeholders, and suppliers are used in managing student



De La Salle University

services as appropriate.

Student services must be consistently improved to keep them current with educational service needs and directions, to achieve better performance, and to control overall costs. Improvements must be shared with other organizational units and processes, as appropriate.

5. Knowledge of Customer Satisfaction

This attribute refers to the manner in which the organization determines requirements, expectations and preferences of students, stakeholders and markets. It also examines how the organization builds relationships with students and stakeholders and determines the key factors that attract students and partners and lead to students and stakeholders satisfactions and persistence and to excellence in educational services/programs.

Attributes with high importance in excellent-accredited schools but low importance in learning-accredited schools is

1. Competence of Faculty

The survey respondents rated faculty competence as satisfactory



De La Salle University

among the schools covered. This attribute refers to the diversity of faculty and their different categories. Appropriate measures/indicators of faculty work system performance and effectiveness to include teams, knowledge and skills sharing across work functions, units, locations, and flexibility are relevant to maintain.

On the other hand, Attributes with high importance in learning-accredited schools but low importance in excellent-accredited schools is :

1. Regular Measurement of Well-being and Satisfaction of Stakeholders

This attribute covers how the organization monitors the well-being and satisfaction of stakeholders to attract and retain students, to enhance student learning and the organization's overall ability to deliver its services, to satisfy students and stakeholders, and to develop new opportunities. Issues to be addressed are:

- Maintenance of a work environment and faculty and staff support climate that contribute to the well-being, satisfaction and motivation of faculty and staff;
- Building relationships to foster new and continuing interactions and



De La Salle University

positive referrals;

- Key student and stakeholder contact requirements and maintain effective stakeholder relationships, including partnerships with key stakeholders, to pursue common purposes;
- Monitoring the effectiveness and progress of the organization's key relationships;
- Complain management process including effective and prompt resolution of complaints; and
- Keeping approaches to relationship building and student and stakeholder access current with educational service needs and directions.

The study did not validate the school rating by the National Accreditation Board (BAN-PT). There are differences on the way the accreditation of BAN-PT was conducted. Three assessors were designated to conduct observation of and interviews with management of the school, representatives of faculty, students and peers, using the prescribed interview guide. There are nine components in the assessment of accreditation namely:

1. Self identity and vision of the program
2. Mission and objective of the program
3. Management of the program



De La Salle University

4. Curriculum and learning process
5. Human resource and development
6. Students and the advisory
7. Infrastructure, means and developments
8. Evaluation system
9. Costing

The components shows similarity on the self identity and vision which in the Agung Model is called stakeholder focus and leadership, mission and objective similar to school performance result, management of program and curriculum similar to process management and information analysis, infrastructure similar to tangibles and assurance, human resource development similar to competencies, evaluation system and costing similar to strategic planning.



Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The conclusions derived from the research responds to the objectives of the study. The purpose of this exploratory study is to identify performance measurements of the service quality from the customers' perceptions, of Master in Management programs of private schools in Jakarta. To survive and become successful in a highly competitive environment, it is essential that the schools' employees understand the interrelationships between internal quality system and its impact on service quality provided to customers. It is equally essential to understand that superior service quality can lead to higher level of operational performance.

Performance Measurement Standards

There were 12 schools sampled, from the population of 26 private schools which conduct MM programs in Jakarta consist of 8 excellent-accredited schools and 4 learning-accredited schools. There were 705 respondents who gave responses to 48 attributes. The measurement used is a modification from the combined Baldrige CPE and SERVQUAL system with a total score of 1500 for all questions. The 1500 is set as the ideal standard for the research. Factor



De La Salle University

analysis was used to determine the grouping of factors from 48 attributes which yielded 9 factors. The data obtained from the survey was subjected to discriminant analysis to obtain the determinant factors which discriminate the sampled schools. The data were then incorporated into scoring in the gap analysis between actual scores and the standard.

The results show (that according to) the perceptions of the stakeholders consisting of students, alumni, faculty, staff and employers about the attributes of quality adopted from Baldrige CPE and SERVQUAL, whereas service quality is related to the schools' performance on and importance of these attributes. The Baldrige CPE proposes that the leadership triad (leadership, strategic planning, and customer and market focus) drives the organization. This research highlights the importance of the leadership triad in turbulent and competitive markets. The schools' top management is integral to formulating and identifying new strategies to compete in the marketplace, which evolves into more effective service systems and strategies leading to strong quality-oriented attitudes from the employees.

Factors for Service Quality Measurement

In the identification of the factors which determine customers' perception of service quality nine dimensions of primary importance resulted. These dimensions or



De La Salle University

factors and their component elements in the order of their decreasing consequence to the respondents are summarized hereunder:

Factor 1: Information Analysis and Process, and Faculty/Staff Focus

1. Standardized operating procedures for student services,
2. Measurement of performance of competitors,
3. Regular measurement of student's well being and satisfaction,
4. Faculty and staff development process,
5. Work system training and development process,
6. Education design to meet desired quality of service,
7. Information management to ensure reliability,
8. Measurement of performance improvement efforts, and
9. Customer satisfaction to initiate improvements.

Factor 2 : Empathy and Responsiveness

1. Result oriented process of study,
2. Best service for all stakeholders,
3. Complete information and brochures,
4. Maintaining relationship,
5. Individual attention to student,
6. Cleanliness of people and facilities,



De La Salle University

7. Responsive faculty and staff,
8. Trouble shooting provided easily,
9. Programs easily followed, and
10. On line help.

Factor 3 : Stakeholder Focus and Leadership

1. Public responsibility for continuous improvement,
2. Customer satisfaction regularly measured,
3. Know customers' current and future requirements,
4. Organizational leadership for commitment,
5. Public responsibility on unity of purposes, and
6. Knowledge customer requirements are understood.

Factor 4 : School Performance Results

1. Student and stakeholder satisfaction,
2. Price of tuition value compare to benefits received,
3. Market share of the school,
4. Faculty and staff satisfaction,
5. Student learning results in value gain, and
6. School effectiveness results.



De La Salle University

Factor 5 : Strategic Planning

1. Strategic development on operational capabilities,
2. Strategic development aligned with education service,
3. Strategic development on comprehensive planning process,
4. Strategic development communicate mission statement, and
5. Relationship process for resolving complaints.

Factor 6 : Assurance and Tangibles

1. Fast and convenient enrolment procedures,
2. Feeling of security,
3. Support process incorporates changing market, and
4. Beautiful and pleasant exterior and interior appearance.

Factor 7 : Reliability

1. On time schedule of classes,
2. Specific assignments and examinations, and
3. Simple and easy administrative procedures.



De La Salle University

Factor 8 : Competencies

1. Competence of faculty, and
2. Up-to-date facilities.

Factor 9 : Organizational Leadership

1. Organizational leadership that encourages change.

Service Quality Performance Measurement

The measurement of service quality in Master in Management programs used the gap analysis comparing the actual performance from the perceptions of customers to the established standards. Such standards were set as the score points in the modified combination of the Baldrige Criteria for Performance Excellence (CPE) and the SERVQUAL model and which were calculated as weights in the responses of the survey. The ideal score based on the measurement points is 1500.

The weaknesses to be addressed as identified by the gap analysis between what should be and what is, are as follows:



De La Salle University

1. Both category of excellent-accredited and learning-accredited schools must prioritize their actions to improve performance on organizational leadership to encourage change, strategy development comprehensive planning process and public responsibility on unity of purpose. They must also sustain achieved results on organizational leadership for commitment, customer satisfaction regularly measured and strategy development on operational capabilities.
2. Both category of excellent-accredited and learning-accredited schools should keep up the advantage of high performance on fast enrollment procedure, easily followed programs and student learning results value gain.
3. Special attention is needed to improve performance in learning-accredited schools in the attributes of knowledge of customers' current and future requirements, and that knowledge of customer requirements are understood.
4. Special attention is also needed to improve performance among excellent-accredited schools such that education is designed to measure quality of service, measurement of performance of competitors, information management to ensure reliability, student services standardized in operating procedures and customer satisfaction to initiate improvements.



De La Salle University

5. Special attention is needed to fulfill the importance perceived by stakeholders in learning-accredited schools in competence of faculty.
6. Special attention is needed to fulfill the importance perceived by stakeholders in excellent-accredited schools on the regular measurement of the well-being and satisfaction of faculty and staff.

The foregoing findings indicate the areas that will be given attention in the formulation of operating strategies that will increase the overall service quality performance of Master in Management programs of private schools in Jakarta with priority attention in accordance with the urgency and importance perceived in excellent-accredited and learning-accredited schools.

This researcher developed the “Agung Model” which is a combination of the Baldrige Criteria for Performance Excellence (CPE) and the Parasuraman, Zeithaml and Berry Service Quality (SERVQUAL) and which is built upon the three sets of interrelated core values and concepts: 1) Baldrige CPE Triad 2) Service Quality Triad and 3) School Performance Result. It consists of seven factors: 1) information analysis, process management and faculty staff focus, 2) stakeholder focus and leadership, 3) strategic planning, 4) assurance and tangibles, 5) empathy and responsiveness, 6) competencies, and 7) school performance result. The conceptual



De La Salle University

relationships between the various factors that comprise the Agung Model (Modified Baldrige CPE – SERVQUAL) are portrayed in Figure 16 of Chapter 4.

Recommendations

This researcher suggests that the formulation and implementation of operating strategies may lead to improvement in the service quality performance of MM programs of private schools in Indonesia. Recommendations are directed to the managers of schools; pertinent government officials; and researchers for further studies. Such may be central and crucial to the success of the concept of excellence in education strategy in a well-conceived and well-executed assessment strategy. The characteristics of such a strategy should include the following:

Recommendation to the managers of schools :

- Clear ties should be established between what is assessed and the organization's mission and objectives.
- There should be a strong focus on improvement of the students' performance, the faculty's capabilities, and the organization's program performance.



De La Salle University

- An embedded, ongoing assessment with prompt feedback should be an integral component.
- The assessment also should be based on curricula, with reference to appropriate strategy, and address the key learning goals and the overall performance requirements.
- Clear guidelines should be established regarding how the assessment results will be used and how they will not be used.
- There should be an ongoing evaluation of the assessment system itself to improve the connection between assessment and student success. Success factors should be developed on an ongoing basis based on external requirements such as those derived from the markets and from other schools.
- Action plans for excellent-accredited schools as well as for learning-accredited school are developed according to four priorities as shown in Tables 31-32



De La Salle University

Table 31 - Action Plan for Excellent-Accredited Schools

STEP	PERFORMANCE ATTRIBUTES	ACTION PLAN	TIME FRAME
FIRST PRIORITY: INCREASE PERFORMANCE			
1	Measure performance of competitors service	Develop strategic intelligence through benchmarking.	Short term
2	Implement system to measure the quality of service	Apply the Agung Model.	Short term
3	Strengthen organizational leadership to encourage change	Participation of school officials in education management seminars and workshops; Build “management by example” activities	Short term
4	Develop strategic comprehensive planning process	Conduct annual planning session; Communicate short, medium and long term goals.	Short term
5	Improve information management to ensure reliability	Provide latest in formation technology both physical facilities and knowhow.	Short term
6	Maintain public responsibility on unity of purpose	Implement professional public relations programs to project good image.	Short term
7	Student services standardized in operating procedures	Adapt ISO 9000-2000	Short term
SECOND PRIORITY: SUSTAIN ACHIEVED RESULTS			
8	Regularly measure well being and satisfaction of faculty and staff	Sustain incentives for faculty and staff;	Short term



De La Salle University

Table 31 – (Continued)

STEP	PERFORMANCE ATTRIBUTES	ACTION PLAN	TIME FRAME
9	Sustain organizational leadership for commitment.	Periodic review of compensation and benefits programs.	Short term
10	Customer satisfaction to initiate improvements	Regular communication with customers; Continuing market research.	Short term
11	Regular measurement of stakeholder satisfaction.	Regular periodic meetings; School newsletter; Periodic surveys.	Short term
12	Strategic deployment of operational capabilities	Networking with other institutions of learning;	Short term
THIRD PRIORITY: KEEP UP THE GOOD WORK			
13	Sustain knowledge of customers' current and future requirements	Maintain close relationship with customers through market research and alumni relations.	Medium term
14	Achieve student learning results with value gain	Deliver quality education while maintaining affordable price of tuition.	Medium term
15	Maintain competence of faculty	Continuing education and development of faculty competence	Medium term
FOURTH PRIORITY: INFORM STAKEHOLDERS			
16	Knowledge of customer requirements are understood	Develop and implement public relations programs.	Medium term
17	Maintain fast and convenient enrolment procedure	MaintainPromote advantage of convenience enrolment	Medium term



De La Salle University

Table 32 - Action Plan for Learning-Accredited Schools

STEP	PERFORMANCE ATTRIBUTES	ACTION PLAN	TIME FRAME
FIRST PRIORITY: INCREASE PERFORMANCE			
1	Improve public responsibility on unity of purpose	Continuing interaction with community leaders and participation in community activities.	Short term
2	Know customers' current and future requirements	Conduct periodic market research.	Short term
3	Develop strategic comprehensive plans	Conduct annual planning sessions; Strengthen short, medium and long term goals.	Short term
4	Strengthen organizational leadership to encourage change	Participation in educational management seminars and workshops; Build "management by example"	Short term
SECOND PRIORITY: SUSTAIN ACHIEVED RESULTS			
5	Strategic deployment of operational capabilities	Networking with other educational institutions.	Short term
6	Regular measurement of stakeholder satisfaction	Periodic meetings with stakeholders.	Short term
7	Know and understand customer requirements	Keep customer relationship	Short term
8	Sustain organizational leadership for commitment	Periodic review of compensation and benefits policies and programs. Maintain professional integrity and ethics.	Short term



De La Salle University

Table 32 – (Continued)

STEP	PERFORMANCE ATTRIBUTES	ACTION PLAN	TIME FRAME
THIRD PRIORITY: KEEP UP THE GOOD WORK			
9	Design system to measure the quality of service	Continuing monitoring of feedback from stakeholders; Develop suggestion box.	Medium term
10	Well-being and satisfaction regularly measured	Periodic review of compensation and benefits policies and programs,	Medium term
11	Uphold information management to ensure reliability	Provide latest formation technology both physical and knowhow.	Medium term
12	Measure performance of competitors service	Initiate and/or participate in benchmarking programs;	Medium term
13	Standardize student services operating procedures	Adapt ISO 9000-2000	Medium term
14	Student learning results in value gain	Deliver quality education while keeping affordable price of tuition.	Medium term
FOURTH PRIORITY: INFORM STAKEHOLDERS			
15	Initiate improvements in customer satisfaction	Promote and maintain close communication with customers.	Medium term
16	Maintain fast and convenient enrolment procedure	Continuing review of enrolment procedures.	Medium term
17	Competencies of faculty	Provide opportunities and facilities of development programs.	Medium term
18	Maintain easily followed programs	Promote advantage of programs	Medium term



De La Salle University

Recommendation to government :

- The Agung Model of Combined CPE-SERVQUAL can be the starting point for an embedded and continuing assessment annually. The assessment system shall be self-administered through a selected and trained personnel specifically for the purpose. In this way the MM program may be continuously evaluated and strengthened to meet the needs of students and other stakeholders.
- In support of this continuing assessment topical researches may be pursued in areas that will be supportive of strengthening the service quality of the MM program.
- The important – performance matrix have been widely used in areas of service quality. It is a simple method to visualize the gap and find the appropriate way to operationalize strategy. Using questionnaire as instrument provided in the attachment, one can develop the tabulation and matrix using any spreadsheet software such as Excel. The difference between actual performance to average performance against the difference between actual importance to average importance become the input for scatter plot graphics.
- The Agung Model of Combined CPE-SERVQUAL can be applied to any school especially in Master of Management programs in Jakarta. The first step is identifying “Baldrige Triad” that defines drivers of the school performance, its service, and its results consist of information analysis, process management and



De La Salle University

faculty staff focus (Factor 1), stakeholder focus and leadership (Factor 2) and strategic planning (Factor 3). The next step is identifying “SERVQUAL Triad” that defines quality service of the school and its results consisting of assurance factors and tangibles (Factor 4), empathy and responsiveness (Factor 5) and competencies (Factor 6). Then accomplish the work of the school that yields School Performance Results.

Recommendation to the researchers :

In addition to the foregoing recommended action plans the following areas for future research are herewith propounded:

- A more detailed analysis of the perception of stakeholders in MM programs from different categories of schools by plotting the performance of schools in the matrix of specified attributes and model accordingly.
- A comparative analysis of the possible effects of age of students on the service quality assessment of schools.
- Demographic, socio-cultural and/or religious influences in perceptions of stakeholders of performance of MM programs.
- Different perceptions of alumni of MM programs by year of graduation in relation to the faculty, curriculum and other relevant circumstances.



De La Salle University

- The reliability of the study is findings is a first step. Perhaps, researchers need to do a survey using the same attributes and employing probabilistic sampling design



REFERENCES

- Ahire, S.L., Golhar, D.Y. & Waller, M.A. (1996). Development and Validation of TQM implementation constructs, *Decision Science*, 27:2.
- American Psychological Association (2002). *APA Manual*, 4th edition, American Psychological Association, retrieved on February 2, 2003.
- Baldrige in Education Quality Center (2002). www.qualityineducation.org/legislation.html, retrieved February 5, 2003.
- Berry, L., Valarie A., & Zeithaml, P. (1990). Five Imperatives for Improving Service Quality, *Sloan Management Review*, Summer 1990, 31(4).
- Black, S., & Porter, L., (1996). Identification of the Critical Factors of TQM, *Decision Science*, 27 (1):21.
- Blackiston, H. & Charting, G., A (1996). New Course: Public Schools Embarking on a Quality Journey, *International Journal: Continuous Improvement Monitor*, 1:1.
- Borsum, L. A., & Francke, C.A., (1998). Baldrige Award Application to Education: A Case Study, ASQC Annual Quality Congress Proceedings.
- Carman, J. M. (1990). Consumer Perceptions of Service Quality, An Assess of SERVQUAL Dimensions, *Journal of Retailing* 66(1): 335,.
- Cook, L. S. (2002). Exploring the Linkage between Quality System, Service Quality and Performance Excellence: Service Provider's Perspectives, *Quality Management Journal*, 9(2), American Society for Quality.
- Cooper, D.R. & Schindler, P.S. (2001). *Business Research Methods*, 7th International edition, McGraw Hill.
- Crosby, L.B., DeVito, R. & Pearson, J. M. (2003). Manage Your Customers' Perception of Quality, *Review of Business*, 24(1), 18- 25.
- Curcovik, S., Melnyk, S., Catatone, R & Handfield, R. (2000). Validating Malcolm Baldrige National Quality Award Framework Through Structural Equation Modeling, *International Journal of Production Research*, 38(4): 791.



De La Salle University

- Czaplewski, A.J., Olson, E. M.& Slater, S.F.(2002). Applying the RATER Model for Service Success, *Marketing Management*, 11(10, 14-17).
- Dion, P. A., Javalgi, R., & DiLorenzo-Asis, J. (1998). An Empirical Assessment of the Zeitham, Berry and Parasuraman Service Expectations Model, *The Service Industries Journal*, 18(4), 66-86.
- Eaton, A., (1999). Advancing Quality Through Additional Attention to Results, *CHEA Chronicle*,1(11), Council for Higher Education Accreditation.
- Ford, M.W. & Evans, J.R., (2000). Conceptual Foundations of Strategic Planning in the Malcolm Baldrige Criteria for Performance Excellence, *Quality Management Journal* 7(1), American Society for Quality.
- Ford, M.W. & Evans, J.R. (2001). Baldrige Award Assessment and Organizational Learning: The Need for Change Managements, *Quality Management Journal* 8(3), American Society for Quality.
- Garvin, D.A. (1984). What Does "Product Quality" Really Mean?, *Sloan Management Review*, 26(1).
- Garvin, D. A. (1983). Quality on the Line *Harvard Business Review*.
- Garvin, D.A., (1987) Competing on the Eight Dimensions of Quality, *Harvard Business Review*.
- Hair, J. F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate Data Analysis with Readings*, Prentice Hall.
- Hauser, J. R., Clausing, D. (1988). The House of Quality, *Harvard Business Review*.
- Hertz, H. S. (2002). The Baldrige Challenge, letter from the director of Baldrige National Quality Program, *Education Criteria for Performance Excellence*.
- Hoisington, S. (2001). Become a Baldrige Examiner, *Quality Progress*, 34(12), 49-55.
- Johns, N. (2001). Importance-Performance Analysis Using the Profile Accumulation Technique, *The Service Industries Journal*, 21(3), 49-63.
- Johns, N. & Teas, P. (1996). Use of Service Quality Gap Theory to Differentiate Between Foodservice Outlets, *The Service Industries Journal*, 16(3) 32-46.



De La Salle University

- Kanji, G. K., Abdul Malek Bin, & Tambi, A. (1999). Total Quality Management in UK Higher Education Institutions, *Total Quality Management*, 10(1), 129-153.
- Kealy, M. J. & Rockel, M. L. (1987). Student Perceptions of College Quality: The Influence of College Recruitment Policies, *Journal of Higher Education*, 58(6), 683-703, Ohio State University Press.
- Klefsjo, B. (2002). Insight to Performance Excellence 2001: An Inside Look at the 2001 Baldrige Award Criteria.
- Klefsjo, B. (2001). Insight to Performance Excellence 2000: An Inside Look at the 2000 Baldrige Award Criteria, *Quality Progress*, 34(3), 118-125.
- Knutson, B., Stevens, P., Wullaert, C., Patton, M. & Yokoyama, F. (1991) LODGSERV: A Service Quality Index for the Lodging Industry, *Hospitality Research Journal*, 14 (3).277-84.
- Krishna, K. & Winston, T. (1998). A New Model of Quality, Working Paper 6580, *National Bureau of Economic Research*.
- Lee, Y.L., & Hing, N. (1995). Measuring Quality in Restaurant Operations: An Application of the SERVQUAL Instrument, *International Journal of Hospitality Management*, 14(3) 29-31.
- Martin-Castilla, J. I. (2002). Possible Ethical Implications in The Deployment of the EFQM Excellence Model, *Journal of Business Ethics*, 39(1/2), 125-134.
- Mergen, E., Grant, D., Wirdick, S.M. (2000). Quality Management Applied to Higher Education, *Total Quality Management*, 11 (3), 345-352.
- Murdick, R., Render, B. & Russell, R. (1990). *Service Operations Management*, Allyn and Bacon.
- National Institute of Standards and Technology, (2002). *Education Criteria for Performance Excellence*, Baldrige National Quality Program, Department of Technology Administration.
- Neely, A. (1999). The Performance Measurement Revolution: Why Now and What Next?, *International Journal of Operations and Production Management*, 19(2), 205- 226.



De La Salle University

- Nicholls, J.A.F., Gilbert, R. & Roslow, S. (1998). Parsimonious Measurement of Customer Satisfaction With Personal Service and The Service Setting, *The Journal of Consumer Marketing*, 15(3), 239-253.
- Osseo-Assare Jr. & Longbottom, D. (2002). The Need for Education and Training in the Use of the EFQM Model for Quality Management in UK Higher Education Institution, *Quality Assurance in Education*, 10(1), 26-36.
- Owlia, Mohammad S., Quality in Higher Education – a Survey, *Total Quality Management*, vol. 7, no. 2, April 1996.
- Parasuraman, A., Zeithaml, V.A. & Berry, L. L. (1985). A Conceptual Framework of Service Quality and its Implications for Future Research, *Journal of Marketing*, 49: 450.
- _____, (1988) Servqual: a Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, 64(1), 12-41.
- _____, (1991). Refinement and Reassessment of the SERVQUAL Scale, *Journal of Retailing*, Winter.
- _____, (1994). Alternative Scales for Measuring Service Quality: a Comparative Assessment Based on Psychometric and Diagnostic Criteria, *Journal of Retailing*, 70(3), 201-231.
- Peters, J. (1999). Educational Accreditation Through ISO 9000, *Quality Assurance in Education*, 7(2), 85-89.
- Philip, G. & Hazlett, S.A., (2000). *The Measurement of Service Quality: A New P-C-P Attributes Model*, Originally Published: *International Journal of Quality and Reliability Management*, 14(3), *Library and Information Management Online*, 5(5).
- Pors, N. O. (2000). Methodological Concerns in Relation to SERVQUAL: Investigation in Libraries, *Library and Information Management Online*, 5(5).
- Render, B. & Heizer, J. (1997). *Principles of Operations Management With Tutorials* 2nd ed., Prentice Hall.
- Rinehart, G., (1993) *Quality Education*, American Society for Quality Congress.



De La Salle University

- Robinson, S.,(1999). Measuring Service Quality: Current Thinking and Future Requirements, *Marketing Intelligence and Planning*, 17(1), 21-32.
- Sallis, E.,(1993) *Total Quality Management in Education*, Kogan Page.
- Samson , D., & Terziovski, M. (1999). The Relationship Between Total Quality Management Practices and Operational Performance, *Journal of Operations Management*, 17: 39409.
- Schnaars, S. P.,(1991) *Marketing Strategy a Customer Driven Approach*, Free Press.
- Siegel, P.,(2000). Using Bladrige to Improve Education: A Rationale Based on Results, *Training & Development*, 54(2), 66-68.
- Siegel, P., Chesnut,M. (2000). Baldrige in Education: National Opportunities and Indiana Initiatives, *Quality Congress ASQC Annual Quality Congress Proceedings*.
- Spanbauer, S. J.,(1995). Reactivating Higher Education with Total Quality Management: Using Quality and Productivity Concepts, Techniques and Tools to Improve Higher Education, *Total Quality Management*, 6(5).
- Spencer-Matthews, S., (2001). Enforced Cultural Change in Academe. A Practical Case Study: Implementing Quality Management System in Higher Education, *Assessment & Evaluation in Higher Education*, 26(1), Carfax Publishing Company.
- Stevens, P., Knutson,B. & Patton, M. (1995). DINESERV: A Tool for Measuring Service Quality in Restaurants, *Cornell Hotel and Restaurant Administration Quarterly*, 36.
- Tam, M. (2001). Measuring Quality and Performance in Higher Education, *Quality in Higher Education*, 7(1), 47-54, Carfax Publishing Company..
- Tam, M. (2002). Measuring the Effect of Higher Education on University Students, *Quality Assurance in Education*, 10(4), 223-228.
- Teehankee, Benito L., (1998). *Towards a Conceptual Model of Total Quality Management Implementation in Service Organizations in the Philippines*, De La Salle University.
- Tenner, A.R., DeToro, I. J. (1992). *Total Quality Management, Three Steps to Continuous Improvement*, Addison Wesley.



De La Salle University

Warn, J. & Tranter, P., (2001). Measuring Quality in Higher Education: a Competency Approach, *Quality in Higher Education*, 7(3).

Wilson, D. & D. Collier, D. (2000). An Empirical Investigation of the Malcolm Baldrige National Quality Award Causal Model, *Decision Sciences*, 31(2):363-83.

Wright, C. & O'Neill, M. (2002). Service Quality Evaluation in the Higher Education Sector: An Empirical Investigation of Students' Perceptions, *Higher Education Research and Development*, 21(1), 23-39, Carfax Publishing Company.

INDONESIAN REFERENCE

Muchyidin, (2000). Akreditasi dan Pemeliharaan Iklim Akademis di Perguruan Tinggi, *Buletin Akreditasi*, 1(2).

Badan Akreditasi Nasional untuk Perguruan Tinggi, (2000), *Buletin Akreditasi*, 1(1).

_____, *Buletin Akreditasi*, . (2000). 1(2).

_____, *Buletin Akreditasi*, (2000). 1(3).

_____, *Buletin Akreditasi*, (2001). 2(3).

Directorate General of Higher Education, (2001). *Public University Directory* .

Natawidjaja, R., (2000). Akreditasi Program Pasca Sarjana, *Buletin Akreditasi*, 1(2).

Suparman, (2000). Evaluasi Program: Akreditasi PS Perguruan Tinggi di Indonesia Sebagai Evaluasi Eksternal, *Buletin Akreditasi*, 1(3).

_____, (2000). Pembinaan Program Studi Pasca Akreditasi, *Buletin Akreditasi*, 1(2).

Tadjudin, (2000). Sistem Akreditasi Nasional, *Buletin Akreditasi*, 1(1).



De La Salle University

Tyoso, B. W., Anggrahini, I., Nehen, K., Sanusi, K., Siswosuwarno, M., Huseini, M., Zurkani Yahya, M., Natawidjaja, R., Siswadi, Suparman, (2000). Internal Quality Assurance, *Buletin Akreditasi*, 1(3).



De La Salle University

Appendix A: List of Master in Management Programs in Indonesia

No.	Accredited Universities	City	BAN-PT Score	Category Rank	Regstrd up to 2000		Currently Regstrd
					Entry	Grad	
1	Universitas Indonesia *	Jakarta	4.3	U	-	-	
2	STIE IBEK	Jakarta	2.8	B	-	-	
3	STIE IBII	Jakarta	3.7	U	851	190	56
4	STIM LPMI	Jakarta	3.5	B	1,210	200	462
5	STIM Jakarta	Jakarta	2.9	B	1,118	274	245
6	STM PPM	Jakarta	4.2	U	2,269	869	114
7	STM IMNI	Jakarta	2.8	B	224	23	19
8	STIE Nusantara	Jakarta	3.7	U	623	116	16
9	STM Prasetya Mulya	Jakarta	4.2	U	1,608	805	97
10	STIE Tri Dharma Widya	Jakarta	2.7	B	54	51	
11	Univ. Borobudur	Jakarta	3.8	U	370	88	48
12	Univ. Bina Nusantara	Jakarta	4.2	U	475	117	103
13	Univ. Gunadarma	Jakarta	3.4	B	1,206	333	119
14	Univ. Indonusa Esa Unggul	Jakarta	4.0	U	893	207	119
15	Univ. Jayabaya	Jakarta	2.7	B	169	60	16
16	Unika Atmajaya	Jakarta	3.9	U	621	156	71
17	Univ. Krisnadwipayana	Jakarta	2.4	B	1,303	209	74
18	Univ. Pelita Harapan	Jakarta	3.7	U	142	20	19
19	Univ. Persada Indonesia	Jakarta	3.7	U	1,334	341	121
20	Univ. Satyagama	Jakarta	2.8	B	562	238	68
21	Univ. Sahid	Jakarta	3.3	B	1,367	585	102
22	Univ. Tarumanegara	Jakarta	3.9	U	389	149	47
23	Univ. Trisakti	Jakarta	4.3	U	1,047	320	
24	STIE Budi Luhur	Jakarta	3.3	B	355	-	82
25	STIE Kalbe	Jakarta	3.4	B	6	-	6
26	STIE IPWIJA	Jakarta	3.2	B	11,538	6,045	360
27	Univ. Muhamadiyah	Jakarta	3.3	B	114	-	84
28	Inst. Pertanian Bogor *	Bogor	4.8	U	-	86	
29	Inst. Teknologi Bandung *	Bandung	4.5	U	347	64	105
30	Univ. Padjajaran *	Bandung	3.7	U	565	121	110
31	STIE Indonesia Emas	Bandung	3.1	B	n.a	n.a	
32	ST Manajemen Bandung	Bandung	4.1	U	n.a	n.a	
33	Unika Parahyangan	Bandung	4.1	U	n.a	n.a	
34	Univ. Gadjah Mada *	Yogya	4.5	U	741	280	65
35	STIE Mitra Indonesia	Yogya	2.7	B	n.a	n.a	
36	Univ. Atmajaya	Yogya	4.0	U	n.a	n.a	
37	Univ. Islam Indonesia	Yogya	3.7	U	n.a	n.a	
38	Univ. Diponegoro *	Semarang	3.6	B	734	82	106
39	Univ. Jendral Sudirman *	Purwokerto	3.0	B	193	15	51
40	Univ. Airlangga *	Surabaya	3.6	B	198	81	62
41	Univ. Surabaya	Surabaya	3.6	B	n.a	n.a	
42	ST IBMT	Surabaya	3.5	B	n.a	n.a	
43	Univ. 17 Agustus	Surabaya	3.7	U	n.a	n.a	
44	Univ. Brawijaya *	Malang	3.7	U	314	54	81
45	Univ. Gajayana	Malang	3.0	B	n.a	n.a	
46	Univ. Muhamadiyah	Malang	3.9	U	n.a	n.a	
47	Univ. Merdeka	Malang	3.1	B	n.a	n.a	
48	Univ. Hasanuddin *	Makasar	3.7	U	131	6	24
49	Univ. Muslim Indonesia	Makasar	3.1	B	n.a	n.a	
50	Univ. Bandar Lampung *	Lampung	3.4	B	59	-	
51	Univ. Sriwijaya *	Palembang	4.0	U	231	53	134
Total					33,361	12,238	3,186

* indicate public university U = excellent B = learning n.a data not available

Source: compiled from BAN-PT (2000&2001), DIKTI (2001) and Kopertis 3 (2000)



De La Salle University

Appendix B: Questionnaire

There are two sets of responses. The first is the importance of the items according to your expectations of MM Program

The second is the performance of the school you take. Please indicate according to your true judgment.

MUI = Most Unimportant UI = Unimportant FI = Fairly Important I = Important MI = Most Important

VUS = Very Unsatisfactory US = Unsatisfactory FS = Fairly Satisfactory S = Satisfactory VS = Very Satisfactory

Name of School : _____

Category : a. Student b. Alumni c. Faculty d. Staff e. employer (please fill only importance section)

Age : _____ years Sex : M / F

Year enroll : _____ Year graduate(ing) : _____

No.	DESCRIPTION	IMPORTANCE					PERFORMANCE					
		MUI 1	UI 2	FI 3	I 4	MI 5	VUS 1	US 2	FS 3	S 4	VS 5	
A	Leadership											
1	The head of school actively encourage change and implement a culture of trust, involvement, and commitment in moving toward best practices.	1	2	3	4	5	1	2	3	4	5	
2	The head display commitment through involvement in quality activities and communication of quality value.	1	2	3	4	5	1	2	3	4	5	
3	The school proactively pursue continuous improvement	1	2	3	4	5	1	2	3	4	5	
4	This school shows public responsibility and high degree of unity of purposes	1	2	3	4	5	1	2	3	4	5	
B	Strategic Planning											
5	This school has a mission statement that has been communicated throughout this school and is supported by its employees	1	2	3	4	5	1	2	3	4	5	
6	This school has a comprehensive and structured planning process that regularly sets and reviews short-and long-term goals	1	2	3	4	5	1	2	3	4	5	
7	This school considers its operational capabilities, customer requirements and the community needs when developing school plan, policies and objectives.	1	2	3	4	5	1	2	3	4	5	
8	The school effectively align with overall education service	1	2	3	4	5	1	2	3	4	5	
C	Student, Stakeholder, and Market Focus											
9	This school knows its customers' current and future requirements for service education offerings.	1	2	3	4	5	1	2	3	4	5	
10	This school's customer requirements are communicated and understood throughout the workforce	1	2	3	4	5	1	2	3	4	5	
11	This school has a process for resolving school's customer complaints	1	2	3	4	5	1	2	3	4	5	
12	This school regularly measures customer satisfaction in education	1	2	3	4	5	1	2	3	4	5	
13	The school uses customer satisfaction as a method to initiate improvements	1	2	3	4	5	1	2	3	4	5	



De La Salle University

Appendix B (continued)

No.	DESCRIPTION	IMPORTANCE					PERFORMANCE				
		MUI 1	UI 2	N 3	I 4	MI 5	VUS 1	US 2	N 3	S 4	VS 5
D Information and Analysis											
14	This school analyzes direct education competitors service offerings to help improve its own service offerings	1	2	3	4	5	1	2	3	4	5
15	This school collects data and information to support performance improvements efforts	1	2	3	4	5	1	2	3	4	5
16	This school has procedures to ensure the reliability, consistency and improvement of data gathering process for school operations	1	2	3	4	5	1	2	3	4	5
E Faculty and Staff Focus											
17	This school has an organizationwide training and development process, including career path planning for all employees	1	2	3	4	5	1	2	3	4	5
18	This school has effective "top-down" and "bottom-up" communication processes	1	2	3	4	5	1	2	3	4	5
19	Employee satisfaction is formally and regularly measured at this school	1	2	3	4	5	1	2	3	4	5
F Process Management											
20	This school has well-established methods to measure the quality of service	1	2	3	4	5	1	2	3	4	5
21	This school operations have standardized and documented operating procedures	1	2	3	4	5	1	2	3	4	5
22	This school incorporates changing customer/market requirements into its education service offerings.	1	2	3	4	5	1	2	3	4	5
G Reliability											
23	Fast and convenience enrolment procedure	1	2	3	4	5	1	2	3	4	5
24	Administration procedure simple and easy	1	2	3	4	5	1	2	3	4	5
25	On time schedule of classes	1	2	3	4	5	1	2	3	4	5
26	Specific assignments and exams	1	2	3	4	5	1	2	3	4	5
H Assurance											
27	Administrative staff have good skills	1	2	3	4	5	1	2	3	4	5
28	Competencies of faculty	1	2	3	4	5	1	2	3	4	5
29	Give secure feelings	1	2	3	4	5	1	2	3	4	5
30	Polite service and behaviour	1	2	3	4	5	1	2	3	4	5
I Tangibles											
31	Modern facilities	1	2	3	4	5	1	2	3	4	5
32	Beautiful exterior and interior	1	2	3	4	5	1	2	3	4	5
33	Cleanliness of people and facilities	1	2	3	4	5	1	2	3	4	5
34	Complete information and brochures	1	2	3	4	5	1	2	3	4	5



De La Salle University

Appendix B (continued)

No.	DESCRIPTION	IMPORTANCE					PERFORMANCE					
		MUI	UI	N	I	MI	VUS	US	N	S	VS	
		1	2	3	4	5	1	2	3	4	5	
J	Empathy											
35	Individual attention to student	1	2	3	4	5	1	2	3	4	5	
36	Result oriented process of study	1	2	3	4	5	1	2	3	4	5	
37	Keep the relationship	1	2	3	4	5	1	2	3	4	5	
38	Best service for all customer	1	2	3	4	5	1	2	3	4	5	
K	Responsiveness											
39	Responsive faculty and staff	1	2	3	4	5	1	2	3	4	5	
40	Programs easily followed	1	2	3	4	5	1	2	3	4	5	
41	Troubleshooting provided easily	1	2	3	4	5	1	2	3	4	5	
42	In line help	1	2	3	4	5	1	2	3	4	5	
L	School Performance Results											
43	Student Learning Results value gain	1	2	3	4	5	1	2	3	4	5	
44	Student and stakeholder satisfaction	1	2	3	4	5	1	2	3	4	5	
45	Price of tuitions value compare to benefit	1	2	3	4	5	1	2	3	4	5	
46	Market share of the school	1	2	3	4	5	1	2	3	4	5	
47	Faculty and Staff satisfaction	1	2	3	4	5	1	2	3	4	5	
48	School Effectiveness Results	1	2	3	4	5	1	2	3	4	5	

MUI = Most Unimportant UI = Unimportant N = Neutral I = Important MI = Most Important

VUS = Very Unsatisfactory US = Unsatisfactory N = Neutral S = Satisfactory VS = Very Satisfactory



De La Salle University

Appendix C Comparison of Rotation Method

ROTATION METHOD: NONE

Total Variance Explained

Component	Initial Eigenvalue Extraction Sums of Squared Loadings			
	Total	Total	% of Variance	Cumulative %
1	13.574	13.574	28.280	28.280
2	5.094	5.094	10.612	38.891
3	2.862	2.862	5.963	44.855
4	2.273	2.273	4.735	49.589
5	1.314	1.314	2.738	52.327
6	1.208	1.208	2.517	54.844
7	1.152	1.152	2.401	57.245
8	1.058	1.058	2.204	59.448
9	1.003	1.003	2.089	61.538

ROTATION METHOD: VARIMAX

Total Variance Explained

Component	Initial Eigenvalue Sums of Squared Loadings				Rotation Sums of Squared Loadings			
	Total	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	13.574	13.574	28.280	28.280	5.673	11.818	11.818	
2	5.094	5.094	10.612	38.891	5.559	11.582	23.400	
3	2.862	2.862	5.963	44.855	3.573	7.444	30.844	
4	2.273	2.273	4.735	49.589	3.413	7.110	37.954	
5	1.314	1.314	2.738	52.327	3.006	6.263	44.216	
6	1.208	1.208	2.517	54.844	2.553	5.318	49.534	
7	1.152	1.152	2.401	57.245	2.508	5.226	54.760	
8	1.058	1.058	2.204	59.448	2.039	4.247	59.007	
9	1.003	1.003	2.089	61.538	1.215	2.531	61.538	

ROTATION METHOD: OBLIMIN

Total Variance Explained

Component	Initial Eigenvalue Sums of Squared Loadings				Rotation Sums of Squared Loadings	
	Total	Total	% of Variance	Cumulative %	Total	
1	13.574	13.574	28.280	28.280	8.595	
2	5.094	5.094	10.612	38.891	5.203	
3	2.862	2.862	5.963	44.855	7.403	
4	2.273	2.273	4.735	49.589	4.241	
5	1.314	1.314	2.738	52.327	6.095	
6	1.208	1.208	2.517	54.844	7.556	
7	1.152	1.152	2.401	57.245	6.191	
8	1.058	1.058	2.204	59.448	1.946	
9	1.003	1.003	2.089	61.538	1.284	



De La Salle University

Appendix C (continued)

ROTATION METHOD: QUARTIMAX

Total Variance Explained

Component	Initial Eigenvalue Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.574	13.574	28.280	28.280	8.626	17.971	17.971
2	5.094	5.094	10.612	38.891	6.452	13.441	31.412
3	2.862	2.862	5.963	44.855	3.521	7.336	38.749
4	2.273	2.273	4.735	49.589	2.715	5.656	44.405
5	1.314	1.314	2.738	52.327	2.522	5.253	49.658
6	1.208	1.208	2.517	54.844	1.701	3.544	53.202
7	1.152	1.152	2.401	57.245	1.507	3.140	56.342
8	1.058	1.058	2.204	59.448	1.295	2.698	59.040
9	1.003	1.003	2.089	61.538	1.199	2.497	61.538

ROTATION METHOD: EQUAMAX

Total Variance Explained

Component	Initial Eigenvalue Sums of Squared Loadings			Cumulative %
	Total	Total	% of Variance	
1	13.574	13.574	28.280	28.280
2	5.094	5.094	10.612	38.891
3	2.862	2.862	5.963	44.855
4	2.273	2.273	4.735	49.589
5	1.314	1.314	2.738	52.327
6	1.208	1.208	2.517	54.844
7	1.152	1.152	2.401	57.245
8	1.058	1.058	2.204	59.448
9	1.003	1.003	2.089	61.538

ROTATION METHOD: PROMAX

Total Variance Explained

Component	Initial Eigenvalue Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	Total	% of Variance	Cumulative %	Total
1	13.574	13.574	28.280	28.280	9.234
2	5.094	5.094	10.612	38.891	9.199
3	2.862	2.862	5.963	44.855	5.840
4	2.273	2.273	4.735	49.589	7.269
5	1.314	1.314	2.738	52.327	6.900
6	1.208	1.208	2.517	54.844	4.883
7	1.152	1.152	2.401	57.245	6.004
8	1.058	1.058	2.204	59.448	5.262
9	1.003	1.003	2.089	61.538	2.429



De La Salle University

Appendix-D Validation of Factor Analysis

No.	VAR	Member of Factor		
		Original	Half 1	Half 2
LD Leadership				
1	Organizational Leadership to encourage change	9	6	4
2	Organizational Leadership for commitment	3	5	5
3	Public Responsibility for continuous improvement	3	5	5
4	Public Responsibility on unity of purposes	3	5	5
SP Strategic Planning				
5	Strategy Development communicate mission statement	5	6	4
6	Strategy Development comprehensive planning process	5	6	4
7	Strategy Deployment on operational capabilities	5	6	4
8	Strategy Deployment align with education service	5	6	4
SF Student, Stakeholder, and Market Focus				
9	Knowledge of customers' current and future requirements	3	5	5
10	Knowledge customer requirements are understood	3	5	5
11	Relationship process for resolving complaints	5	6	
12	Customer satisfaction regularly measured	3	5	5
13	Customer satisfaction to initiate improvements	1		1
IA Information and Analysis				
14	Measurements of Performance competitors service B56	1	1	1
15	Measurements of Performance for improvements efforts	1	1	1
16	Information Management to ensure the reliability	1	1	1
FF Faculty and Staff Focus				
17	Work System training and development process	1	1	1
18	Faculty and Staff Development communication processes	1	1	1
19	Well Being and Satisfaction regularly measured	1	1	1
PM Process Management				
20	Education Design to measure the quality of service	1	1	1
21	Student Services standardized for operating procedures	1	1	1
22	Support Process incorporates changing customer/market	6	3	
RL Reliability				
23	Fast and convenience enrolment procedure	6	3	6
24	Administration procedure simple and easy	7	3	6
25	On time schedule of classes	7	3	6
26	Specific assignments and exams	7	7	6
AS Assurance				
27	Administrative staff have good skills		7	
28	Competencies of faculty	8	9	7
29	Give secure feelings	6	3	7
30	Polite service and behaviour		3	7



De La Salle University

Appendix-D (continued)

No.	VAR	Member of Factor		
		Original	Half 1	Half 2
TN Tangibles				
31	Modern facilities	8	8	
32	Beautiful exterior and interior	6	3	2
33	Cleanliness of people and facilities	2	2	2
34	Complete information and brochures	2	2	2
EM Empathy				
35	Individual attention to student	2	2	2
36	Result oriented process of study	2	2	2
37	Keep the relationship	2	2	2
38	Best service for all customer	2	2	2
RS Responsiveness				
39	Responsive faculty and staff	2	2	1
40	Programs easily followed	2		8
41	Troubleshooting provided easily	2	2	8
42	In line help	2	2	8
PR School Performance Results				
43	Student Learning Results value gain	4	4	3
44	Student and stakeholder satisfaction	4	4	3
45	Price of tuitions value compare to benefit	4	4	3
46	Market share of the school	4	4	3
47	Faculty and Staff satisfaction	4	4	3
48	School Effectiveness Results	4	4	3