



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF QUALITY AND PRODUCTIVITY
MANAGEMENT**

**MODEL DEVELOPMENT/SELECTION FOR QUALITY MANAGEMENT
SYSTEM IN ETHIOPIAN PRIVATE HIGHER EDUCATION INSTITUTIONS:
THE CASE OF SELECTED UNIVERSITIES**

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**JUNE, 2018
ADDIS ABABA, ETHIOPIA**

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**A THESIS SUBMITTED TO SCHOOL OF GRADUATE STUDIES OF ST. MARY'S
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THE DEGREE OF MASTERS OF SCIENCE IN QUALITY AND PRODUCTIVITY
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**JUNE, 2018
ADDIS ABABA, ETHIOPIA**

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DECLARATION

Tigist Alemu ID NO SGS/0583/2009A do here by declare that this Thesis is my original work and that it has not been submitted partially: or fully, by any other person for an award of a Degree in any of the University/institution.

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ENDORSEMENT

This Thesis has been submitted to St. Mary's University School of Graduate Studies for examination with my approval as University advisor.

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ACRONYMS

EFQM	European Foundation for Quality Model
EPHEIS	Ethiopian Private Higher Education Institutions
HERQA	Higher Education Relevance and Quality Agency
ISO	International Organization for Standardization
MoE	Ministry of Educational
QMS	Quality Management System
QMM	Quality Management Model
TQM	Total Quality Management

ABSTRACT

Like any other sector, the education sector especially the private higher education institutions are facing quality problems. In Ethiopia, leadership (lack of poor leadership and commitment with respect to customer, lack quality policy and objective, lack of responsibilities and authorities for relevant roles within the universities), support (shortages of resources like human, material and financial resources), infrastructure necessary for the universities processes (building and associated utilities, and equipment), planning (poor planning on actions to address the risks and opportunities, poor planning of changes), operation (poor planning, implementation and control of the work processes), and improvement (actions regarding nonconformity, corrective actions, poor attention on continual improvement.) are the major challenges for the sector. This study is therefore, conducted to propose suitable quality management model for the sector. In order to achieve this study, different QMMs already tested in different HEIs have been studied in detail by reviewing various literatures including their success and failure story in the sector. Some of the models studied in detail under this study are: Massy's six quality process domains model, and Generic Model for quality management in higher education. In addition, the current practiced quality management issues and if they have any model to achieve the quality of education are also assessed by the questioner from the sample universities. The major parameters that have been seen within the selected PHEIs are general quality at organization level, leadership and commitment, quality planning, resource, operation, customer communication, performance evaluation and improvement. Furthermore, the above mentioned quality issues in the selected private higher education institutions are investigated with different types of questions in the questioner. The analysis is carried out the overall perception and practiced quality parameters by both the employees and students shows poor. From all quality parameters, only resource and other quality related issues scores the mean value of 3.08 and 3.14 respectively. The other parameters score below 2.5. Furthermore, as observed directly, most of the private higher education institutions are not initiated by themselves rather they are enforced by the governing bodies like MoE and HERQA.

Key words: Quality Management Model, Quality Management System, ISO 9000

CHAPTER ONE: INTRODUCTION

The first chapter of this study includes general background of the study; statement of the problem; objectives, significance, limitation, and delimitation of the study; definition of key terms and how the study was organized.

1.1. Background

Quality is the major issue of higher education institutions as well as the service providing sectors as a whole. In teaching learning process, all the stakeholders like government, students, and their families, employers, and fund providers are demanding value for what they have paid and needs efficiency through quality teaching.

There have been a lot of mechanisms that has been exercised by higher education institution to provide the customers need.

In order to meet the stakeholder's expectation, the sector has to implement the best model so that the sector will delight its customers and all the stakeholders. ISO 9000 is a series of quality management standards published by International Organization for Standardization (ISO) in 1987. Under these standards, there are ISO 9001(Quality Management System Standard Requirement), ISO 9004 (Managing for the sustained success of an organization), ISO 19011 (Guidelines for auditing management systems) and ISO 14000(series of standards on environmental management tools and systems) (Othman et al., 2017). It is the internationally accepted quality management system standard (QMS) and is also a generic quality management system which can be applicable at any type of organization that provides service as well as manufacturers. It also focuses on processes and customer satisfaction rather than procedures. QMS offer the infrastructure, procedures, processes and resources needed to help originations both monitor and improve their performance to strength efficiencies and customer service. ISO 9001 which is the requirement for QMS is the global point of reference for QMS certification helps to bring shareholder engagement, organizational reputation, customer satisfaction and competitive advantage.

Like the relationship between any organization and the issue of quality, HEIs and the concept of quality also cannot be separated.

Major quality problems in EPHEIs

Since quality is the major concern for all types of sectors including industries that provides tangible products like cement, garment & textile, food/ medicine and service-providing industries who have final outputs of intangible/service like hospitals, hotels and tourism, transport and education. Today's customer is highly demanding quality product/service because of the better awareness created among the final end users, highly competitive environment and also because of Globalization. The issue of quality is also very practical in the education sector as there is a direct relationship between customer's satisfaction and the final output of any academic institution.

Education is one sector among those service-providing industries. Hence, here the customers evaluates the quality of education for all academic institutions so that to choose and get the quality education that they want/deserve.

According to Bowden & Marton, (1998) quality is achieved by carrying out the core functions of the universities and these core functions of any university are teaching, research and community service. They also agreed that the core process in all core functions is 'learning'.

Now days there are different quality problems in EPHEIs. The major problems are discussed below. According Sims et.al (2006), the distinctive feature of mass private sector is the accommodation of a large proportion of students in low cost, low quality institutions, created to attract excess demand, with insufficient resources. Similarly, Levy (2010) also said some private institutions play a role of little more than taking in tuition fees while delivering poor education and then weak degrees to those who do not drop out. Thus, their role is perhaps making profit. In Ethiopia, the responsibility of providing education has for long been dominated by governments. In a situation where it has become very clear that government is unable to sustain continuous provision of sufficient and high quality education, there can be no better option than to open the floodgate to

private individuals and organizations in order to complement government efforts in education provision. Lack of clear quality standards, government encouragement, skilled human resources, books, technology, fund, and other facilities are major factors that prevent PHEIs from providing quality education as mentioned by Abiyot (2010).

Yirdaw, (2016) describes the key factors that determine the quality of education categorized as 10 key individual factors: (a) teaching and learning process; (b) organizational structure, policy, and procedure; (c) management services; (d) attributes related to instructors; (e) attributes related to students; (f) leadership; (g) resources; (h) faculty; (I) administrative staff; and (j) infrastructure.

Determinants of the university's quality according to Michalska (2009) are the quality of material potentials, the quality of immaterial potentials, the quality of realized process and the quality of the results.

1.2. Statement of the problem

Private higher education institutions are facing quality problems. Based on the preliminary study done, the following quality problem has been recognized. The challenges are categorized as leadership (lack of poor leadership and commitment with respect to customer, lack quality policy and objective, lack of responsibilities and authorities for relevant roles within the universities), support (shortages of resources like human, material and financial resources), infrastructure necessary for the universities processes (building and associated utilities, and equipment), planning (poor planning on actions to address the risks and opportunities, poor planning of changes), operation (poor planning, implementation and control of the work processes), improvement (actions regarding nonconformity, corrective actions, poor attention on continual improvement.) which are parts of the components of ISO 9001:2015 are the major problems that are currently facing.

To handle these challenges, institutions need better leadership who will be able to provide academic freedom and will be able to make collective decision with the new

requirements that is the necessity to make and implement important and often unpopular decisions in a timely manner. In order to maintain and improve academic quality, professionals should be committed to the academic quality and consider it as a professional issue.

The focus of this study is therefore to develop QMS model for EPHEIs based on the ISO 9001:2015 (QMS Requirement) that can help to address all the mentioned challenges.

1.3. Objective

1.3.1. General Objective

The main objective of this research is to develop/select suitable quality management system model for Ethiopian private higher education institutions.

1.3.2. Specific Objective

The specific objectives of the thesis are:

- 1 To identify quality problems within selected Universities.
- 2 To assess the QMS initiatives currently in the selected universities.
- 3 To assess quality management models in higher education institutions,
- 4 To create awareness about quality concepts and its importance in education sector.
- 5 To show the importance of quality management system for higher education institution in Ethiopia.
- 6 To propose the appropriate quality management model for the sector.
- 7 To formulate the quality management system (QMS) for the case studies based on the predefined standards, strategies and data obtained from the same.

1.4. Definitions of Key Terms

- **Quality Management Model (QMM):** the strategy, advice and guidance for an institution to attain quality, efficiency, and effectiveness in performing its mission responsibilities.
- **Quality Management System (QMS):** a management tool consisting of a set of rules to direct and control an organization with regard to quality, which is intended to assist in establishing policy and objectives and in achieving those objectives. It is a dynamic process that brings resources, activities and behavior together to focus on the achievement of success.
- **ISO 9001:2015:** is the requirement for Quality Management System.
- **Quality Management:** the coordinated activities to direct and control an organization with respect to quality.
- **Quality:** the degree to which a set of inherent characteristics fulfills requirements.
- **Quality Assurance:** part of quality management focused on providing confidence that quality requirements will be fulfilled.
- **Quality Policy:** the principle defining the commitment to quality by an organization's senior management, including a model for setting quality objectives.
- **Quality Objectives:** performance indicators for measuring the progress of the quality system.
- **Quality Manual:** document that defines the scope of the Quality Management System and that outlines documentation related to the standard to be achieved. It includes or references documented procedures and describes how processes interact to form the QMS. It can be either a high level document with little detail regarding how work is performed, or it may include considerable detail.
- **Institution:** is any educational organization which can be university, university college or college

- **Customer:** can be both internal customers who are students and employees and external customers who are student's families, employers of graduates and the external community.
- **Stakeholders:** are all peoples who can affect and be affected by the EPHEIs

1.5. Significance of the Study

Implementing of QMS is a strategic decision for any organization that can help to improve its overall performance and provide a sound beginning for sustainable development initiatives.

The benefits of implementing a QMS in EPHEIs basically in the selected PHEIs will provide the following importance.

1. The institution will create the ability to consistently provide services that can meet customer (students) need who are the primary beneficiary from the teaching-process and help to apply statutory and regulatory requirements;
2. It will facilitates opportunities to enhance customer satisfaction;
3. Helps to address risks and opportunities associated with the institutions' context and its objectives;

Based on the above mentioned benefits of implementing QMS, this study will have a practical significance on education sector especially for private sector to implement the QMS by developing a model which is suitable to implement QMS.

1.6. Limitation of the study

The prime sources of information were students and employees of the selected PHEIs. The purpose and procedures of the research were fully explained and stated to the subjects at the beginning. The researcher exerts the maximum effort on collecting the questioner from the respondents and observing directly the problems found in the

universities. Nevertheless, there were some conditions beyond the control of the researcher that may affect on the conclusions of the study and their application to other situations. These are,

- Unwillingness from side of individual participants in properly filling and returning questionnaire.
- In addition to that, dealing with improperly filled questionnaire and not obtaining answers for some of the questions especially open ended ones,
- It was not easy to observe that part of the study in all universities. But this is compensated by reports from some of the universities to mentioned St. Mary's university,
- There was also a possibility of missing out PHEIs representatives who could have a different view about the case under study and this somehow limited the possibility of getting different opinions and
- Not having sufficient reference materials written specifically on the model development for PHEIs in the country is the other limitation for the study.

1.7. Scope of the Study

The overall finding of this study is limited to the experience of the selected five private higher education institutions located in Addis Ababa, Ethiopia. In addition to that, the research questionnaire respondents' responses were reflections of and confined to their personal experiences. Hence, this research mainly focuses on the development of quality management system model for Ethiopian private higher education institutions that are found in Addis Ababa. This is because of time limitation to conduct the study throughout the country as well as both the private and governmental HEIs in addition to that; there is giving Ephesians on profit maximization rather than delivering quality education in PHEIs than the public institutions.

CHAPTER TWO: LITERATURE REVIEW

This chapter, with sections here after, present theoretical foundation of the research by providing a brief background of higher education and private higher education practice worldwide and in Ethiopia in particular, elaborates the contribution of PHEIs in the provision of tertiary education in the country, briefly viewed the concept of quality in higher education and finally, tries to provide the quality management models that are tested in different higher education institutions and the reasons why they failed.

2.1. Quality in Ethiopia

In Ethiopia, HERQA is a mandated body in assuring quality education provision in both public and private higher education institutions. HERQA is established in 2003. And since its establishment HERQA has developed quality assurance systems and introduce the systems for achieving quality education provision and meet set objectives by the higher education institutions. HERQA also gives an accreditation for HEIs by assessing the institutional performance through the institutional quality audit reports and accreditations undertaken institutions and the public at large know their strengths and weaknesses. This body also develops the standards and protocols and also major issues worth considering for further actions by higher education institutions for best results.

The quality model HERQA currently uses has three elements; input, process and output (HERQA, 2005). One of the inputs is the design of a curriculum which eventually leads to the development of an educational program in a given department. It should emanate from the needs of stakeholders namely the students, parents, employers, government and the society at large.

Any department that fails to overlook such approach will be unsuccessful to meet requirements of the industry and community and would be unable to respond to ever increasing demands of the stakeholder. Consulting government strategic and policy documents, feasibility study on the skills demanded by the industry help institutions to

prepare a road map for the preparation of sound curriculum and launching of a program responsive to the industry (HERQA, 2005).



Figure 2. 1: Stakeholders and Quality in HEIs (Source: HERQA, 2005)

In addition, HERQA has identified the following ten key aspects of operation which form the focus points for quality audits in Ethiopian HEIs.

- a) Vision, Mission and Educational Goals
- b) Governance and Management System
- c) Infrastructure and Learning Resources
- d) Academic and Support Staff
- e) Student Admission and Support Services
- f) Program Relevance and Curriculum
- g) Teaching, Learning and Assessment
- h) Student Progression and Graduate Outcomes
- i) Research and Outreach Activities
- j) Internal Quality Assurance

2.2. Quality in HEIs

All countries have some kind of quality practices in their own way, but they might differ significantly in terms of purpose, focus and organization. Maintaining their internal QA system is the major challenge. Education is one sector that really needs to be quality.

Providing quality education is one area that will help the graduates (out puts) of education institutions in contributing for the county's development.

Students which are lately be the end product of any education institutions deserves quality education so that they can contribute for the development of their country and the world as whole. They are also the ones dealing with it day in day out over several years. This makes them real experts on QA; students know best how their (ideal) education and study environment should look like (Fekadu, Eba, H.L (Ed). 2013).

Since all the customers expects better service from any service providers especially from the private sectors, the issue of quality will be the major issue in all HEIs especially for the private HEIs. That's why quality cannot be separated from higher education institution, but there are major challenges the concept of quality in education sector. Out of these challenges of quality in teaching and learning process, some of them are mentioned below.

Lack of clear definition: - Lack of clear definition of quality is one of the major challenges in education sector. This is because quality is defined by the customer or the end user of the service for service providing industry and the same is true for those who provide products. The word quality according to David (2007) has different meanings. He defines “quality” as:

A degree of excellence, Conformance with requirements, The totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs, Fitness for use, Fitness for purpose, Freedom from defects, imperfections or contamination, Delighting customers.

In this study, quality is considered as *‘fitness for purpose’* as defined by Higher Education Relevance and Quality Agency (HERQA, 2005) which is a regulatory body established in 2003 to assure relevance and quality education provision in all higher education institutions in Ethiopia.

One of the definition which is 'quality is fitness for purpose' have the same meaning from 'quality with the fulfillment of a specification or stated outcomes.

Harvey and Green, (1993) define quality as fitness for purpose that sees quality as fulfilling a customer's requirements, needs or desires. It is because most of the customer specifies requirements. In education, fitness for purpose is usually based on the ability of an institution to fulfill its mission or a program of study to fulfill its aims.

Woodhouse, (1999) is also defines it as "fitness for purpose" that can allow institutions to define their purpose in their mission and objectives, so "quality" is demonstrated by achieving these accordingly.

Campbell and Rozsnyai (2002,) are the other writers that defines quality as "fitness for purpose" as one of the possible criteria for establishing whether or not a unit meets quality, measured against what is seen to be the goal of the unit.

In the same way, Vlasceanu *et al.*, (2007) defines quality as "fitness for purpose" as about conformity to sectoral standards which it is a concept that stresses the need to meet or conform to generally accepted standards such as those defined by an accreditation or quality assurance body, the focus being on the efficiency of the processes at work in the institution or program in fulfilling the stated, given objectives and mission. Sometimes quality in this sense is labeled as: (i) a value for money approach owing to the (implicit) focus on how the inputs are efficiently used by the processes and mechanisms involved or (ii) the value-added approach when results are evaluated in terms of changes obtained through various educational processes (e.g., teaching and learning processes).

According to ISO 9001:2015, Quality is degree to which a set of inherent characteristics of an object fulfill requirements. Quality in education helps the end users or students to improve their skill and abilities through quality education. There are different factors and elements that can affect the quality education directly or indirectly. According to the definition of quality expected by Juran (1988), it is accepted initially, that the quality of the university is the degree, in which, it fulfills the growing requirements of surroundings and helps in the students' maturity. And this quality in education may be measured through two factors, results and process itself.

At this time quality education is the serious issue for famed universities and builds up completely different view of the university management.

As mentioned on ES ISO 9001:2015, The potential benefits to an organization of who are implementing a quality management system based on this international standard are: a) the ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements; b) Facilitating opportunities to enhance customer satisfaction; c) addressing risks and opportunities associated with its context and objectives; and d) the ability to demonstrate conformity to specified quality management system requirements.

2.3. Quality Management System (QMS) and ISO 9000

QMS is a complex system consisting of all the parts and components of an organization dealing with the quality of processes and service/products. QMS can be defined as the managing structure, responsibilities, procedures, processes, and management resources to implement the principles and action lines needed to achieve the quality objectives of an organization. The definition of a QMS can be also evolving into a definition of good management. It is not an addition to an organization. It is an integral part of its management and production.2.3.1. ISO 9000

The ISO 9000 standard (ISO 9001, 1994) provides comprehensive guidance on the principles, scope and implementation of a QMS. According to CERCO SWGA, (1999) there are three options for the organization regarding QMS. These are:

- Implement a QMS without reference to the standard;
- Use the principles and concepts within the standard;
- Adopt the standard and seek an ISO 9000 certificate.

As CERCO SWGA, (1999), there are a lot of direct and indirect benefits of QMS. Accordingly, the following are some of the direct benefits.

- Improved customer satisfaction;

- Improved quality of products and services;
- Workers' satisfaction and more commitment to the organization;
- Better management and a more effective organization;
- Improve relations with suppliers;
- Improved promotion of corporate image.

Besides the above benefits, there are also several indirect benefits to identify, which give opportunities to:

- Review business goals, and assess how well the organization is meeting those goals;
- Identify processes that are unnecessary or inefficient, and then remove or improve them;
- Review the organizational structure, clarifying managerial responsibilities;
- Improve internal communication, and business and process interfaces;
- Improve staff morale by identifying the importance of their output to the business, and by involving them in the review and improvement of their work.

Any type of organization can apply this QMS and can get the above mentioned benefits. And the EPHEIs can also the mentioned benefits by implementing a suitable QMS model.

2.4. Quality management models (QMM) in higher education

There are several literatures and different quality management models that have been proposed for the quality education. Some of them are discussed below.

2.4.1. Massy's six quality process domains model

The quality of education processes are reviewed at Organizational, faculty and departmental levels according to Massy. These education quality processes are seen based on six domains which includes the organizational, faculty and departmental education quality processes based on six determination (designed learning outcomes, design of curricula, design of teaching and learning processes, design of student examination and use of examination results, implementation quality, and commitment of

resources to education quality work) (Massy, 2003). The domains mentioned above are explained as follows.

- ***Determination of desired learning outcomes:*** - is the first domain that stresses on the goals of study programs and how they relates to students' needs comparing students' prior knowledge, abilities further employment opportunities and quality of life.
- ***Design of curriculum:***-is the second domain which is the process to design and improve program curriculum. It includes program contents and from what perspective it will be taught; the role of design inputs from students, staff and employers; what will be done to create a logical curriculum by collecting systematic feedback and acting upon it while adjusting it to program goals when necessary; assurance of the standard of academic programs offered by the organizations.
- ***Design of teaching and learning processes:*** this is the third domain that is the process to design, review and improve methods of teaching and learning, teaching material and students' learning environment which includes desired and achieved learning outcomes, the role of external inputs and students' views and also support for innovation to improve student learning.
- ***Design of student examination and the use of examination results:*** the fourth domain is design of student examination and the use of examination results. It highlights processes to design, review and improve the examination of students and the relation of examination to educational objectives, including allocation of responsibility for examination; mechanisms for feedback to improve examination and processes to enhance the connection of examination with educational objectives more closely.
- ***Implementation quality:*** is the fifth domain which is the process that assures correct, coherent and effective implementation of learning outcomes, curricula, teaching, learning and examination design and processes that include: staff

recruitment and development; peer review; measures of students' learning experience outside the classroom; teacher-student interaction.

- ***Commitment of resources to education quality work:*** is the sixth and last domain which focuses on the use of resources by organizations to enhance education quality work; are quality management processes adequately funded; are incentives established to reward good performance in delivering quality education; if unit levels receive sufficient funding to perform their mission.

2.4.2. Generic model for quality management in higher education

This model is a generic quality model that can address the educational process by integrating general models for quality addressing educational issues with the model addressing the service areas of higher education. The model is suggested by Srikanthan and Dalrymple (2002). The feature of this model is based on the previous set of models and also can be summarized in the following way.

- “Transformation of the learners, enhancing them through adding value to their capability and ultimately ‘empowering’ them” (Srikanthan and Dalrymple 2002: 220).
- A synergistic collaboration, which is the collaboration not only between teacher and students, but also among organizations and with the external community. Notice that “this means being student-centered in programs, community-centered in outreach and nation-centered in research” Srikanthan and Dalrymple (2002: 218).
- Leadership in higher education institutions plays an important role in creating and securing an appropriate collegial culture.

2.4.3. Three quality dimensions model

This model was developed by Mergen et al. in 2000. It discusses a set of measurement parameters to be used in evaluating the quality of education and the tools necessary for evaluating them. Their quality management framework has of three dimensions: quality of design, quality of conformance and quality of performance.

According to Mergen et al., there is a logical interaction between these three dimensions, i.e. low level of quality performance may influence the quality design and quality conformance dimensions. Similarly, if the level of quality conformance is low, it may require to improve quality control techniques or to make changes in the quality design. And this flow is shown under the figure below.

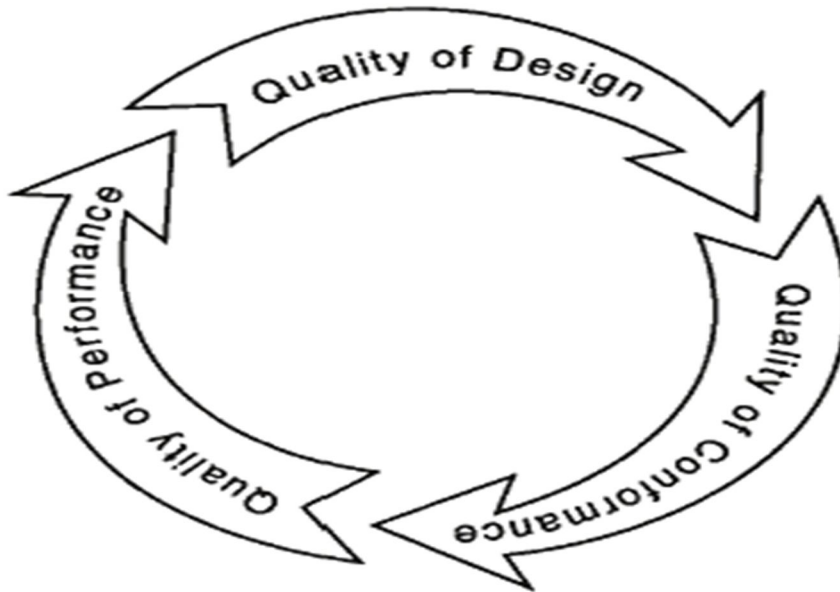


Figure 2. 2: Relationship between the components of the model (Tibor Csizmadia, August 2006)

Quality of design:- is about setting up the characteristics of a good education in a given market segment at a given cost, which is determined by the quality of the data about stakeholders and their requirements; the quality of the process intended for translating these requirements into a product; the continuous improvement of the quality design process.

According to Csizmadia (2006) Quality of design is determined by three factors: (1) the quality of the insights gained about stakeholders and the depth of understanding of their requirements; (2) the quality of the process used to translate these requirements into a product and/or service that provides value to stakeholders; and (3) the continuous improvement of the design process.

Quality of conformance: - concentrates on how well the designed requirements, including the cost requirements (uniformity and dependability) are satisfied. It is determined by the minimization of variance from design requirements for the products and/or services. The less variance there is from the designed requirements for the products and services; the better is the quality of conformance. Consequently, each design specification needs a certain set of measures to be developed to assure that design requirements are met.

Quality of performance: - deals with the level of students' satisfaction with the education they get. It is a measure of the value that students derive from their education. It measures including the level of endowment, stakeholder satisfaction, tuition revenues, student enrollment, fresh employees' salaries and career advancement.

2.4.4. Dill's framework for academic quality management

Dill's framework (1992) suggests that a higher education program may be developed as an interrelated system. Within the system, various sources supply students who are educated through a designed program featuring specific educational processes and then placed with various customers. The educational program should be continually designed and redesigned based on stakeholder needs as well as organizational knowledge and expertise. This framework can be applied at any level of analysis but will be addressed here at the level of individual higher education institutions. Academic quality management includes: source management and student selection; program design; customer needs research; as well as the design and management of a supporting quality information system.

There are various sources which supply students within this system. In this system the education of students is carried out through a designed program that features specific educational processes, and then the placement of students with various customers takes place. The educational program has to be designed and redesigned continually, taking into consideration stakeholder's needs as well as organizational knowledge and expertise. The academic quality management includes the following elements: source management

and student selection; program design; research on customers' needs; the design and management of a supporting quality information system.

The basic idea for the development is concern with student quality and success. An academic quality management approach would emphasize a continual improvement and reliability of the performance of incoming students which is based on measuring academic quality defined as critical by people involved in designing the academic program. This might include not only the assessment of students for admission on critical measures but also the assessment of freshman students as a means of validating the students' preparation and the effectiveness of the admissions selection process in providing students with little unwanted variation on the essential criteria for academic quality. Source management would assume finding and following higher education institutions in terms of quality of their student product over time. This might include the admission/rejection rates of higher education institutions' graduates recorded over a long period of time, as well as the retention rate of their admitted graduates.

Dill (1992: 68) argues that the application of the concepts derived from the research on design factors associated with quality products in manufacturing settings to academic program design could be useful. These factors include the use of reliability, product line breadth, manufacturing process flow and sequencing, and change in underlying processes, and they are all associated with variation in quality (Garvin, 1988). Dill (1992, P. 68) points out that when applied to the academic program design, certain degree of complexity in program components may also contribute to variation in academic quality, and the early identification of key academic program components could also assist in the reduction of predictable variation. Educational program-line breadth may also play an important role in increasing quality variation in academic settings, especially since there is little coordinated support for program design provided by higher education institutions, and academic resources often vary by subject fields.

Another important aspect of the academic program design is the sequencing of various academic program components to make student learning more effective. As an example, Dill (1992, P. 69) refers to the collegial program and process design introduced at the Harvard Business School. The program design of the school's MBA degree, including the

content and sequencing of each course component, is collegially designed by the school faculty. The school faculty applies the discussion-centered or case study method, which is the dominant mode for instruction in the school, and the school, invests in a case research and development unit supporting educational program. As a result, the Harvard Business School's investment in program design has contributed to its development significantly.

Research on customers' needs: The model emphasizes the importance of research on potential employers and organizational alumni, taking into consideration the relevance of academic skills and knowledge to post-academic success. Dill (1992, P:70) states that alumni surveys have contributed to identifying the particular value in the workplace of general components of an undergraduate education or, through analyses of subsets of alumni, of the relevance of specific subject areas to success in different occupational categories. The development of database on alumni could be used to identify predictable and stable alumni placement sectors such as professional education, business, teaching, as well as particular occupational groups.

Quality information system: - What is understood under this concept is a system that includes different measures of the performance of students during the whole educational process, starting from the moment of their application until their completion of the studies; as well as measures of drop-out rates. Dill (1992: 72) argues that many of these measures could be based on students' samples, using assessments "embedded" in the educational process. Moreover, the application of audits, or extended exit assessments of samples of graduating students might be helpful with receiving additional information on academic quality (Seymour, 1992).

However, the problem that arises here is that in spite of a great amount of information available in higher education institution, it is kept in separate offices and support different functions. The information on entering student performance is gathered and stored by the admissions office, placement exams are conducted by departments (Jewell, 1991b referred in Dill, 1992: 72), and data collected on alumni is usually reserved for public-relations and fund-raising purposes. Thus, to create an academic quality information system a range of measures are required, including the coordination of the data gathering efforts, the development of common definitions and standards, and the integration of the

quality information system with an active initiative in program and process design (Dill 1992, P:72). This emphasizes an important role of leadership in a higher education institution. All in all, the objective is to empower the collegial mechanisms of the academics to improve educational quality and keep them responsible for deciding how quality will be measured, and how the resulting information will be utilized for quality improvement (Dill, 1992: 72).

2.4.5. Holistic educational development model

The educational development model which is developed by D'Andrea (2000) involves initiating and managing three major areas: these areas are academic development, learning development and quality development. The linkages between these areas are shown in Figure 2.3.

The model emphasizes a quality system that “not only performs a regulatory function but also one that functions to improve the quality of the educational experience, one that provides a developmental function as well” (Gosling & D'Andrea, 2001, p. 11). In this model the activities of the educational development model would create a ‘quality loop’. It stresses the development, implementation and evaluation of educational provision full circle by informing the process of curriculum development with knowledge of current pedagogical theory and practice. It also enhances the necessary professional development for teaching staff with teaching/learning strategies meeting the educational goals and objectives of the curriculum developed. This integrated educational development model creates the links between curriculum development and quality management by creating a collegial environment within the organization and, the main models of quality management. Additionally, these processes can enhance support for students’ learning development needs as well.

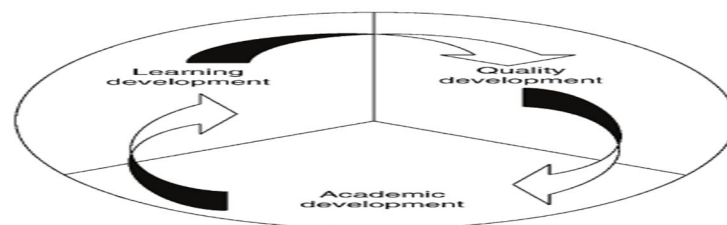


Figure 2. 3: Holistic educational development (D'Andrea, 2000)

2.4.6. Versess' quality management model

In his model, Veress (1999) examines quality management of higher education from an engineering perspective. He defined the notion of quality as the satisfaction of stakeholders. He stresses that only the 'demand-satisfaction process' has quality according to the modern quality management interpretation, while production or consumer processes alone do not. In order to improve quality it has to be known and measured (estimated). Organizations can measure the quality of education, the satisfaction of stakeholders, etc. but if they do not have clear educational processes, regulation processes and conformity control processes they cannot reproduce the processes under the same conditions.

Organizations can declare the satisfaction of stakeholders but they do not know what kinds of activities and processes produced it. Thus, they do not know what to change for improvement. Therefore, he emphasizes a clear description of educational and secondary processes concerning educational ones, the regulation of processes, conformity control processes and last, but most importantly, quality control processes (satisfaction of stakeholders). Furthermore, he stresses the importance of a 'goal-oriented' quality management system where a goal system is needed for regulating these activities. The quality goal system must be derived from organizational quality policy, which should be derived from the organizational mission.

2.5. General quality management frameworks

The most popular models such as Total Quality Management (TQM), (EFQM) and ISO will be described and discussed. Here, I will examine two properties of the models. First the basic elements of these models will be described. Then I will compare and analyze these models with the elements of the comprehensive framework.

2.5.1. Total Quality Management (TQM)

TQM implementation (Kanji & Tambi, 1999) is influenced by certain TQM principles and core concepts that are critical for organizational success. The TQM ‘movement’ has been very broad and covered many approaches and models. Accordingly, it is not possible to describe the TQM approach. The purpose of this section is to introduce a TQM model for higher education institutions that incorporates various critical success factors. Kanji’s (1998) model, which purports to be applicable generally and which contrasts with some other TQM approaches, clearly states its principles and assumptions, and these allow on to give the critical success factors for its development in HEIs (Figure 2.4)

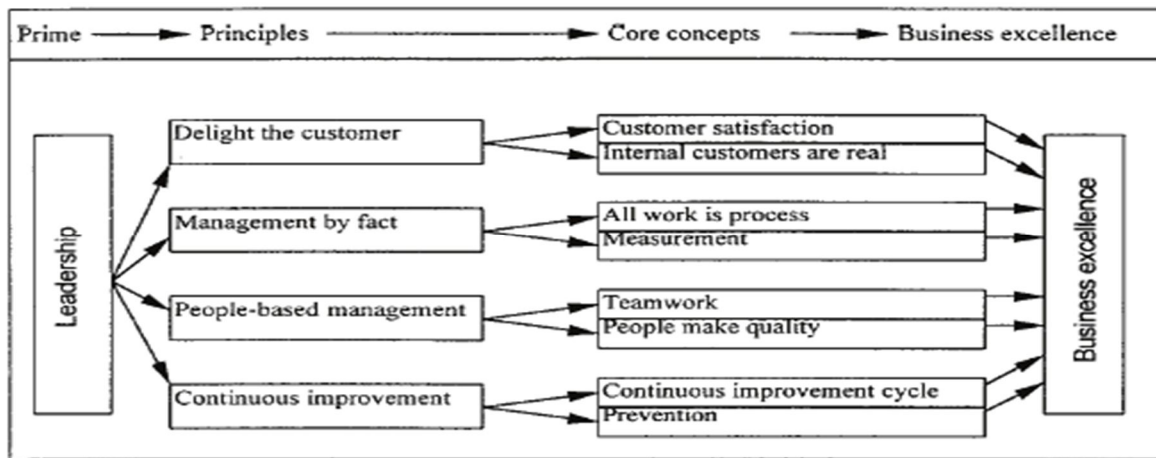


Figure 2. 4: Business Excellence Model (Kanji, 1998)

It has been applied in 183 HEIs in three different countries: the USA, the UK and Malaysia (Kanji, 2001). According to this model, Organizations have to be guided through the TQM principles and core concepts by leaders in order to achieve business excellence (Kanji et al., 1999). He states that TQM is suitable for all higher education institutions regardless of age, size or type of control, i.e. whether public or private Organizations. Yet, he also emphasizes that TQM depends on the organizational culture. Kanji’s model builds on four principles: (1)delight the customer; (2)management by

fact; (3) people-based management; and (3) continuous improvement. Each principle is divided into two core concepts, namely: customer satisfaction and internal customers are real; all work is process and measurement; teamwork and people make quality; continuous improvement cycle and prevention. Leadership serves as a prime in this model and must be transmitted through all the principles and core concepts in order to achieve business excellence. Core concepts represent those managerial areas that must be given special and continual attention to ensure high performance. These factors are critical because only if they are executed properly will the organization achieve business excellence. These factors are useful because they can be used by managers and leaders for missions, policies and decision making (Kanji et al., 1999).

2.5.2. ISO 9000 standards

ISO 9000 is a set of international standards on quality management and quality assurance developed to help companies effectively document the quality system elements to be implemented to maintain an efficient quality system. They are not specific to any one industry and can be applied to organizations of any size.

ISO 9001:2015 is the last version and company level certification based on the standard published by the International Organization for Standardization titled "Quality management systems-Requirements". This standard revises ISO 9001:2008 to include requirements for a new, higher level structure as a common framework to all ISO management systems, risk-based thinking in quality system processes, fewer prescribed requirements with less emphasis on documentation, clear definition of quality management system boundaries and increased leadership requirements. Any certifications issued to ISO 9001: 2008 will no longer be valid after September 2018. ISO 9001:2015 is a non-industry specific certification and is intended for any organization that wants to implement and maintain a quality management system. Certifications are issued by third party certifying bodies. For an organization to maintain ISO 9001:2015 certification, they will be subjected to annual or regularly scheduled audits to evaluate the organization's continued compliance to the standard.

ISO 9004: 2000, which is designed as a guide for those Organizations that want further improvement of their quality system. Without going into details the description will be limited to the following.

ISO 9001 and 9004 standards each have a different character. The 9001 is a so-called 'good enough' model which defines minimum requirements for quality management systems. ISO 9001 is a concrete base for agreement among partners and for government regulations. Its certificates are of high interest for the Organizations themselves, for their suppliers, for their customers, for state authorities, legislative organs and the community at large. ISO 9004 is a model for an ongoing journey to improve the quality management system starting with the minimum level of ISO 9001 (Seghezzi, 2001, p. 864).

Furthermore, Kanji (1998) and Kanji and Tambi (1999) say that ISO 9001 could be integrated with TQM to develop a total quality system. In addition, they propose the use of the EFQM model for the process using an integrated self-assessment framework approach. However, the missing TQM elements in ISO 9001/9004 must be addressed first. The following section will address the content of the EFQM model

The EFQM model is a set of criteria, systematically articulated, representing the different organizational areas. The EFQM sets of principles recognize the importance of customer focus and the key role of leadership in providing both drive and focus. In addition, the Excellence model, with its wide definition of partnership, its strong emphasis on processes and on continual improvement, its focus on innovation, learning and importance of people and mutually beneficial supplier relationships, the inclusion of public responsibility and its inclusive approach to results (balancing the needs of all stakeholder groups) makes for a holistic view of quality/excellence. It has nine criteria, that is, a subset of 'enablers' (leadership, people, policy & strategy, partnership and resources and processes) and a subset of 'results' (people results, customer results, impact on society results and business results) (Figure 2.5).

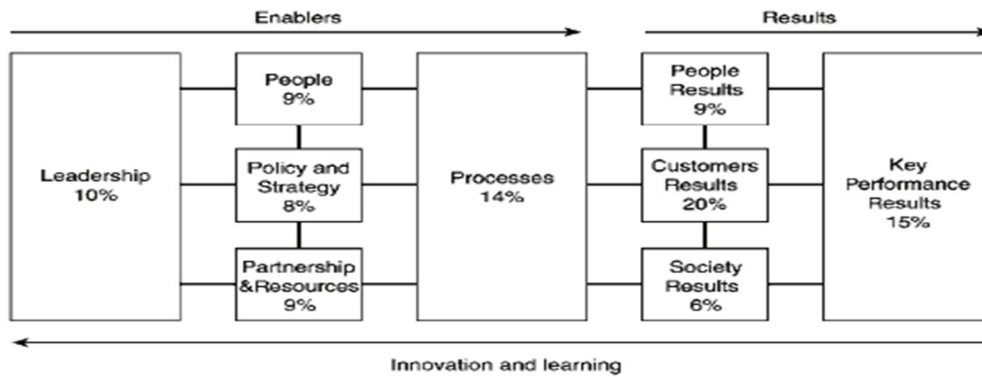


Figure 2. 5: The EFQM Excellence Model (2003)

It intends to provide a management and assessment tool for each higher education institution, supporting its self-analysis (including the identification of strong points and areas for improvement), and simultaneously providing a source for quality improvement opportunities. Therefore, it can be assumed that the excellence of a higher education institution will depend primarily upon the processes that take place within its scope (namely teaching/learning, research, public service and secondary service) and the results that, through the processes, it is able to achieve. Using these opportunities of the model, excellent Organizations can improve their quality management system with the benefit of a model that allows also benchmarking with other users of the model.

Generally the above mentioned model was good at some point but doesn't work for today's higher education institutions for the mentioned reasons.

2.5.3. Seven principles of Quality Management in ISO 9001:2015

ISO 9001: 2015 defines quality management as "coordinated activities to direct and control an organization with regard to quality." It is management with regard to quality. It can also include establishing quality policies and quality objectives, and processes to achieve these quality objectives through quality planning, quality assurance, quality control, and quality improvement.

1. Customer focus. Meeting – and exceeding – customer needs is the primary focus of quality management and will contribute to the long-term success of your enterprise. It is important to not only attract but also retain the confidence of your customers, so adapting to their future needs is important.

2. Leadership. Having a unified direction or mission that comes from strong leadership is essential to ensure that everyone in the organization understands what you are trying to achieve.

3. Engagement of people. Creating value for your customers will be easier if you have competent, empowered and engaged people at all levels of your business or organization.

4. Process approach. Understanding activities as processes that link together and function as a system helps achieve more consistent and predictable results. People, teams and processes do not exist in a vacuum and ensuring everyone is familiar with the organization's activities and how they fit together will ultimately improve efficiency.

5. Improvement. Successful organizations have an ongoing focus on improvement. Reacting to changes in the internal and external environment is necessary if you want to continue to deliver value for your customers. This is of paramount importance today when conditions evolve so quickly.

6. Evidence-based decision making. Making decisions is never easy and naturally involves a degree of uncertainty, but ensuring your decisions are based on the analysis and evaluation of data is more likely to produce the desired result.

7. Relationship management. Today's businesses and organizations do not work in a vacuum. Identifying the important relationships you have with interested parties such as your suppliers – and setting out a plan to manage them – will drive sustained success.

2.6. Private and Public higher education institutions in Ethiopia

In Ethiopia, modern higher education begins in 1950 within the same year, university college of Addis Ababa, which is a government institution, has established (Teshome, 1990). In 1991, there were only two public universities and six colleges in the country with a capacity to enroll only about 10,000 students.

But through time HEIs has expanded, and the main reason for this was the increase in student population in Ethiopia. Between 1996 and 2003, the student population of HEIs including private institutions has increased from about 35,000 to more than 100,000 (Yizengaw, 2003). By 2010 and 2011, the total enrollment of the HEIs of both private and public was 467,843. Of whom 79,314 or 17% were enrolled in PHEIs (Ministry of Education of Ethiopia [MoE], 2011).

The expansion of HEIs in Ethiopia brought about, as expected, a remarkable increase in student population. Between 1996 and 2003, the student population of the higher education system, including accredited private programs, increased from about 35,000 to more than 100,000. Eighteen percent of that total enrollment in 2003 came from PHEIs (Yizengaw, 2003). By 2010-2011, the total enrollment (undergraduate and graduate) of the HEIs (private and public) in all programs (regular, evening, summer, and distance education) was 467,843, of whom 79,314 or 17% were enrolled in private HEIs (Ministry of Education of Ethiopia [MoE], 2011). In the undergraduate program, where PHEIs are heavily involved, 21% of the enrollment was in private institutions (MoE, 2011). The total number of graduates from undergraduate and graduate programs for the 2010-2011 academic year was 81,598, of which 11,053 (14%) graduated from PHEIs.

As the information obtained from the official website of MoE (<http://info.moe.gov.et>) accessed on March 14, 2018 at 12:00 PM, in Ethiopia, there are 125 accredited and re-accredited HEIs. Out of these, 59 are private and the remaining is public. Generally, from all HEIs in Ethiopia, 47% are PHEIs. The following table summarizes the mentioned numerical figure.

No	Higher Education Institutions		Total	Percentage (%)
	Addis Ababa	Out of Addis Ababa		
Public	35		35	28
Private	38	21	59	47
Colleges of Teacher Education	31		31	25
Grand Total			125	100

Table 2. 1: Summary of HEIs in Ethiopia (On result survey 2018)

Since the contribution of private higher education is tend to 14%, focusing on providing quality education within these private higher education sector will positively affect the county's plan in producing qualified and problem solving man power.

2.7. Quality practices of selected PHEIs

2.7.1. St. Mary's University

St. Mary's University is one of the private higher education institutions in Ethiopia; its main compass is located at Addis Ababa. It has evolved from St. Mary's Language School which started operation in 1991 and was established as a college in 1998. The University runs accredited undergraduate and graduate programs in diverse fields of studies in regular, extension distance education divisions and. At graduate level it offers around nineteen programs by itself and in partnerships with two universities from abroad which are Univertita Catolica Del Sacro Cuore from Italy and Indra Ghandi National Open University from India.

The university also offers around 20 Undergraduate programs with regular, Extension and distance programs with having 120 centers of coordination offices for distance programs. In addition, it also provides short term trainings and provides services to business and Industry pertinent to staff recruitment and skills upgrading training. Furthermore, SMU is the founding member of Ethiopian Private Higher Education Institutions and also it is an associate member of International Network for Quality Assurance Agencies in Higher Education & other international associations.

As the researcher observed, there are a lot of quality related activities that are practiced within the university. Furthermore the university has mentioned on its goal statement, In order to meet and exceed the quality and standard requirements of students and stakeholders, different around ten major activities are mentioned.

In addition the university tries to assure by forming governance body of the internal quality assurance system at different department level. These are

- Quality Assurance Standing Committee at Senate level
- Center for Educational Improvement and Quality Assurance (CEIQA)
- Faculty Quality Enhancement Committee
- The Administrative Quality Assurance Unit/ Business and Administration Quality Enhancement Committee
- Department Quality Assessment Teams
- Quality Enhancement Teams

It shows that, the leaders of the university are committed to assure educational quality. University also has quality assurance policy manual, which outlines the manners in which the internal quality assurance system is organized and directed as mentioned on the manual not mentioned.

2.7.2. Unity University

Unity University is the first privately owned institute of higher learning which is awarded full-fledged university status in Ethiopia by the Ministry of Education. It is also the first private university to offer postgraduate programs leading to Master’s degree in Business Administration (MBA) and Development Economics (MA).

Unity University conducts continuous assessment of its academic offerings and introduces innovative learning and teaching exercises to maintain and upgrade its academic performances to ensure its unfaltering quality services. In addition to its academic undertaking, the University encourages research and holds annual multi-disciplinary conferences the proceeds of which are published in its academic journal entitled “Ethiopian Journal of Business and Development.” It has also bi-monthly publication “The voice of Unity University” to inform target audience on the activities of the University and enhance knowledge of its readers.

There are also 6 graduate programs, 5 undergraduate programs available within the university.

And as stated on the university's official website <http://uu.midroc-ceo.com/> the university participates in community services.

2.7.3. Rift Valley University

Rift Valley University is the largest private university in Ethiopia, with 27 campuses around the country. Known formerly as **Rift Valley University College**, RVU was granted full-fledged university status in 2014 by MoE. It is also founded in 2000GC by 5 persons.

The first batch of students set foot on RVU's first campus in Adama in October 2000. On the basis of the findings, academic programs commenced at a diploma level in five fields of study, namely Accounting, Computer Science, Law, Marketing Management, and Secretarial Science and Office Management. RVU offers more than 20 undergraduate and five graduate programs in business, technology, health and social science fields. RVU provides dozens of Technical Education and Vocational Training programs at all levels.

The university has collaborative partnerships and affiliations with higher learning and research institutions, health service providers, professional associations, industries, and financial institutions locally and internationally.

2.7.4. Alpha University College

The present Alpha University College (AUC) grew out of the distance education institution established by an Ethiopian in 1981. The objective of the institution was to give vocational and technical training to those who are unable to attend regular classes.

With this institution as its foundation, Alpha Education and Training Share Company (AETSCO) were established in 1994. The founders of the company were Ethiopian businessmen and other experienced people with a wide range of professional training in different fields. The founding members are dedicated to the cause of education of citizens. As a result, just from the outset, the

motto of the company has been to provide relevant, accessible, affordable and quality education to citizens who would later on hopefully exert their efforts and contribute to the capacity building in Ethiopia.

Since its establishment, AETSCO has been engaged in accredited distance higher education programs leading to certificates, diplomas and degrees. Tens of thousands of distance education students have graduated and other tens of thousands are currently following different diploma and degree programs including Economics, Accounting, Business Management, Information Technology, Public Administration and Development Management.

The company has won the confidence of many Ethiopians as a whole and its stakeholders in particular as mentioned on its official website. The tremendously increasing number of its student population from year to year and the feedback the company receives from its graduates as well as from the various government and non-government organizations contribute to the improvement of the programs and success of the institution.

After rigorously assessing its performance of over a decade long experience, AETSCO decided to realize its plan of expanding its services both qualitatively and quantitatively. Accordingly, various kinds of programs for both at a distance and regular (day and extension) students are offered. For the efficient realization of the company's vision and mission, highly qualified and experienced professionals are brought together to constitute the core of Alpha University College.

The university also stated quality related issues on its mission vision and educational goal statements. As we have seen its organizational structure there is a department of academic relevance and quality assurance. As directly observed the office is created but not that much functional. We couldn't even see the documented materials that should be kept in the office.

Organogram of Alpha University College

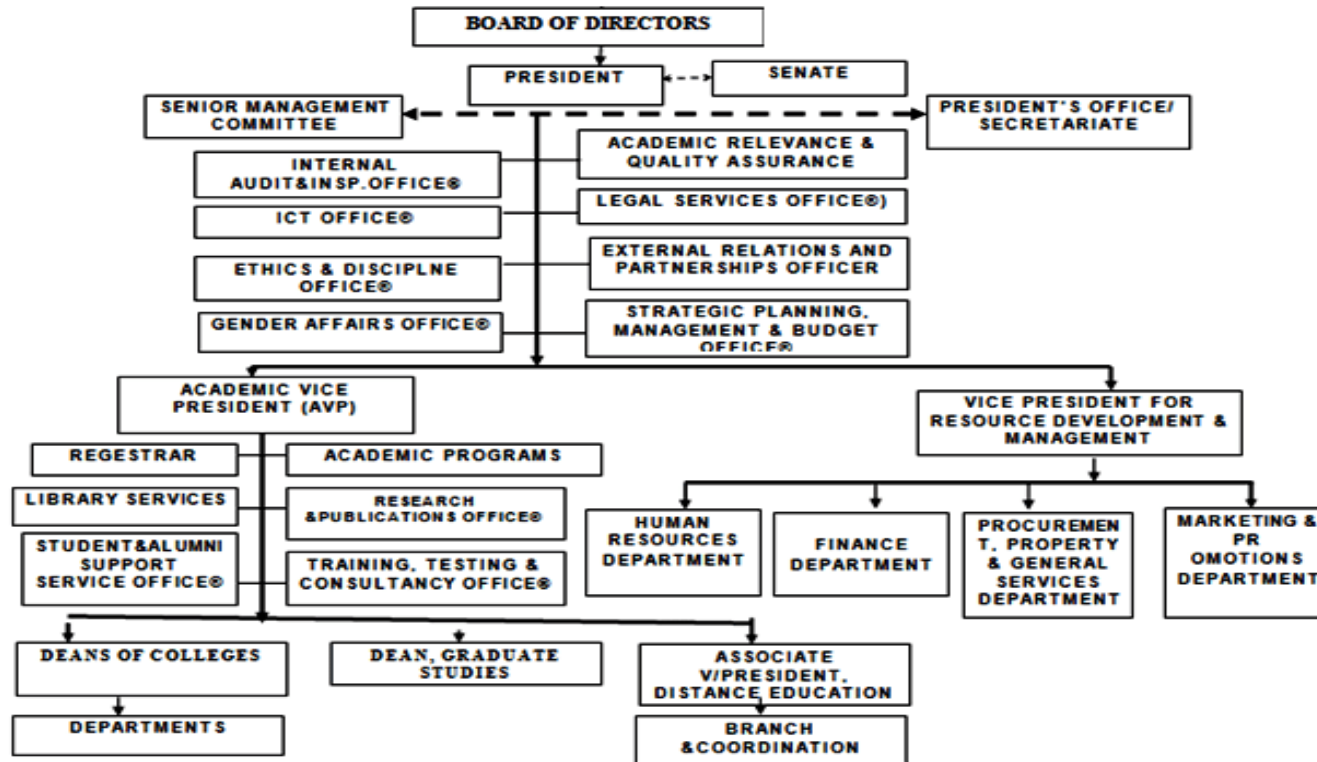


Figure 2. 6: Organizational Structure of Alpha University

2.7.5. Admas University

Admas University, which is one of the pioneer Private Higher Education Institutions in Ethiopia, commenced its operation in October 1998 under the name “Admas Business Training Centre.” The Training Centre then started delivering training services in certain tailor-made short-term programs. By undertaking deep assessments of further training needs and making preparations in terms of the required human and material resources, the centre upgraded itself to a college status as of April 1999, and to the status of a University College as of March 2007. Finally, after ensuring that all the requirements of Higher Education Proclamation No. 650/2009 have been met, the Ministry of Education of F.D.R.E. granted full University status to Admas as of July 2014.

The University has undergone enhancing its capacity of rendering quality training and education. It also facilitated the conduct of external quality audit by The Federal Democratic Republic of Ethiopia’s Higher Education Relevance and Quality Agency (HERQA). The audit proved that the University renders quality education and training services as the conclusion of HERQA’s audit team reads on page 7 of the audit document; “The overall conclusion of the EQA team is that Admas University College has grown successfully in a planned and purposeful way and is firmly established as a major provider of higher education in Ethiopia.” Admas also scored the highest result during the 2003 HERQA’s audit. Getting audited by HERQA for its distance education, Admas again scored a highest result, and became one of the few Institutions given license to pursue rendering distance education once the Ethiopian Government had forbidden the delivery of distance education by Private Institutions during the year 2004.

As a means of disseminating the research outputs, Admas publishes such journals and other publications as Admas Development Journal, Journal of Business, Journal of Informatics, Journal of Education, Horizon, Experience Admas, Admas Quality, Voice of Distance, The Triple Voice, “Finote Admas”, Admas Monthly, Admas Weekly and different campus-based monthly publications.

Admas University has crafted Community Development Policy, Strategy and Guideline to serve the community pragmatically. It also has a dedicated office led by a director to deal with such affairs. In line with this, Admas University has been doing all its best to serve the community through various ways. Some of them include: realizing research-based community development intervention packages, designing and implementing different projects, providing training in

various areas, sponsoring different events, responding to different calls, participating in public awareness raising walks, donating blood, protecting the environment, becoming member of different communities, and mobilizing f different clubs and units.

Admas, via its one of the highly empowered wings_ the Quality Assurance Office, is being frequently visited many Private and Public Higher Education Institutions these days. As an office directly accountable to the president of the University College, it has the responsibility of supporting and monitoring, the academic, business development and administration and finance wings of the University with special emphasis on how they are accomplishing their activities against their plan and the already set working standards of the University. The Central Quality Assurance Office coordinates all the quality assurance organs in each college. To this end, the office has adequate officers and higher experts including those who have Doctorate (PhD) Degree qualification levels. The office also has different quality related committees at different levels.

For its dedication towards quality services, Admas is awarded appreciation certificates in two subsequent rounds of the Ethiopian Quality Award Organization. Still true, Admas is the only member of International Network for Quality Assurance Agencies in Higher Education (INQAAHE) from Ethiopian Private Higher Education Institutions. Sourced from the university's official website. Developing QMS model for EPHEIs, all relevant components which have direct relationship with the quality of education will be studied in detail within the selected universities and other stakeholders.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

Under this section the research design and methods which is used to accomplish the research, the population and sampling techniques, the data collection and analysis methods will be discussed.

3.1. Research Design

In order to understand the research problem more completely and to identify the relevant QMS components for EPHEIs, out of the ISO 9001:2015 which is the general requirement for QMS, this study employ a sequential explanatory mixed methods design which is a procedure for collecting, analyzing and producing of results by mixing both quantitative and qualitative data at some stage of the research process within a single study. The logic for mixing both qualitative and quantitative data is because it is recommend neither method is completely sufficient by themselves to capture magnitude of the problems. When both quantitative and qualitative methods in combination are used, they complement each other and allow for more complete analysis (Tashakkori & Teddlie, 2003).

The quantitative data is collected using the secondary data sources by reviewing different literature. In the other side, the qualitative data is collected using research questionnaire to identify the perception of participants on quality related issues. Data used to collect through questioner and document review to help explain the magnitude and impact of developing model and implementing QMS within the selected case companies. When quantitative and qualitative methods used separately, it will not useful for the researcher since they both have their own strength and weaknesses. For example, when we take the case of using quantitative research design, as it depend on numerical data, it may give us advantages like collecting structured and broader information in the form of numerical data, and allows researchers to measure and compare variations between cases (Seale, 2004). the researcher looked for a flexible research approach – a design that will enable

benefit from the good features and merits of both qualitative and quantitative method – the mixed research approach, which is a method that has been described as the "third methodological movement" following quantitatively and qualitatively oriented approaches (Teddlie and Tashakkori, 2003).

3.2. Sample and Sampling Techniques

As per the information obtained from MoE's official web site, currently there are 125 accredited and re-accredited HEIs in Ethiopia. Out of these, 59 of them are private and the remaining are public HEIs. In the other side, from the total PHEIs, there are 38 PHEIs found in Addis Ababa while the remaining 21 are found out of Addis.

The major concern of this study is PHEIs which are found in Addis Ababa. As a result, for the purpose of this study, five PHEIs are taken from the above mentioned number of PHEIs. They are St. Mary's University, Unity University, Rift Valley University, Admas University and Alpha University College. These institutions are selected based on the experience they have, the number of students they have and also the programs they are providing.

3.2.1. Sampling Technique

For the purpose of this study, a simplified formula by (Yamane, 1967) is used to calculate sample sizes. The formula is shown hereunder. Where, n is the sample size from the total population, N is the total population and e is Margin of error = 0.08 with 92% of accuracy level.

$$n = \frac{N}{1 + N(e)^2}$$

3.3. Method of Data Collection

In order to collect data and information for this study, both primary and secondary data sources are used. The primary data is related to data that is gained by different techniques such as interviews and questionnaire distribution. The sources of secondary data are literature studies, related articles, and published books.

Primary information is collected in three ways: observations, opinion investigation, and interviews, Dahstrom (1996). Using interviews and observation is more common than opinion investigation. Depending on the data needed, the questions in the interviews are different. For instance, for a statistical study the questions must be limited into few alternatives for answering. Qualitative surveys are suitable with open questions and consequence questions. For this study, the primary data is collected by questioner and direct observation.

3.3.1. Data Gathering Methods

The researcher has used the following data collecting methods during gathering of the necessary data.

i. Questionnaire

Questionnaire is the main tool used to gather the perception of respondents in a written form. In this study the respondents are all internal stakeholders mainly students and employees of the institutions. And also this questioner is used mainly to collect primary data. It is convenient to secure reliable and adequate factual information, opinions and attitudes in structural framework from a large number of respondents at a low unit cost (Seyoum and Ayalew, 1989). Thus, this study employed questionnaire, which is composed of both close and open ended questions. Variables in the research questionnaire were a hybrid of mostly self-prepared and adapted from different researchers.

In addition, for the purpose of this study, a simplified formula by (Yamane, 1967) is used to calculate sample sizes. The formula is shown hereunder. Where, n is the sample size from the total population, N is the total population and e is Margin of error = 0.08 with 92% of accuracy level.

$$n = \frac{38}{1 + 38(0.08)^2}$$

Accordingly, the questioner is distributed for 155 sample respondents but only 96 of them are returned the questioner. The numbers of respondents are taken from five higher education institutions which are purposely selected from the total 38 private higher education institutions in Ethiopia which is more than 10 % of the total. In addition, 155 respondents are taken proportionally from the selected sample PHEIs. While selecting these five PHEIs, different issues like, the time they stayed in the sector, the acceptance they gained by the customers, the number of campuses they open throughout the country and more issues are considered. Furthermore, these sample respondents are further distributed proportionally for each of the institutions.

No	PHEIs	No of Population (X)	The value of n (respondents) for each population ((X/N)*100)
1	Alpha University College	5,736	8
2	St. Mary's University	22,304	32
3	Admas University	10,572	15
4	Rift Valley University	23,736	33
5	Unity University	8370	12
Total		70,718	155

Table 3. 1: Total respondents, sample size and proportional sample size of each university.

3.3. Validity and Reliability of Data

In research the concern of an investigator is how to minimize possible errors and bias by maximizing the reliability and validity of data. This then requires that the tool for the collection of data is valid and reliable. Validity is concerned with the extent to which a

scale accurately represents the contracts of interest (Marshall, 2006). With this regard, as mentioned earlier, the questionnaires were distributed to a total of 17 participants, who were not included as participant in the study, for pilot testing and their feedback lead to significant modifications with the purpose of increasing the content validity of the questionnaire.

In addition to this, internal consistency of this study was checked by Cronbach's alpha. The data obtained were analyzed by using SPSS 20.0 to say the reliability and scales of tools and patterns under the questionnaire two items were considered to be disregarded based on their value of item and some of them were improved (wording, clarity, and order). Therefore, majority of descriptive analysis of the items within a test are higher than 0.7 and this suggests that the items are reliable and the entire test is internally consistent (Robert, 2006).

ii. Direct Observation

Direct observation is the other method used to gather primary data. This method is used for collecting the required data and information from the respective HEIs. The major quality assurance sections found in the institutions and how these sections are contributing for the assurance of quality education in the institution. Moreover, the infrastructure and facilities of the institutions has been observed. The important documents of the respective HEIs such as annual reports, audit reports, company profile brochures have been also used for the assessment.

CHAPTER FOUR: DATA COLLECTION AND ANALYSIS

This chapter presents the research results from data collected in both quantitative and qualitative techniques. It has two major sections. In the first section of the chapter demographic characteristics of respondents are presented and in the second section, quantitative results from close-ended survey items gathered through questionnaire and qualitative results obtained from the observation will be shown and finally the summary of the results are presented in this section.

4.1. Results

Under this section the existing QMS are presented using descriptive statistics. The descriptive statistics tool implemented to explain the findings including frequencies, measures of relative position (percentages), and measures of central tendency (Mean) of the QMS related issues.

Three items with five response parts with mixed type of question. Accordingly, the demographic characteristics of the respondents are addressed in part one. The other quality related questions are addressed by part two and three with mixed types of questions like a scale from 1 to 5 (No obstacle or very high – very severe obstacle or Very low) were used to measure respondents' perception on quality of education being provided by PHEIs especially with in the university they are in. In addition some of the items are addressed by asking yes or no questions still by scoring them as 1 and 2 respectively. On the other side, the magnitude of the general area of quality related challenges that are found on quality of education is applied. Under the third part open ended questions are included just to verify the validity of the answers from part two by triangulation tool. **Triangulation** is a powerful technique that facilitates validation of data through cross verification from two or more sources. In particular, it refers to the application and combination of several research methods in the study of the same phenomenon. With this regard, as shown in Table 4.1, that shows the frequencies and percentages of demographical characteristics of each university.

4.1.1. Part One:- Demographic Characteristics of the Respondents

As stated in the study population section in the previous Chapter, from the total sample of 155, 130 questionnaires were distributed in the selected institutions (i.e. the mentioned sample size is distributed for each institution proportionally based on the population they have.) of which 96 of them were filled and returned i.e 74% of return rate. Meanwhile, the information also seen by direct observation, but only 3 of them (60%) expressed their willingness to open their offices be observed though it didn't work. This section also provides respondent's background in terms of working institution, gender, age, Occupation (whether they are student or employee), and year of service in educational sector in general.

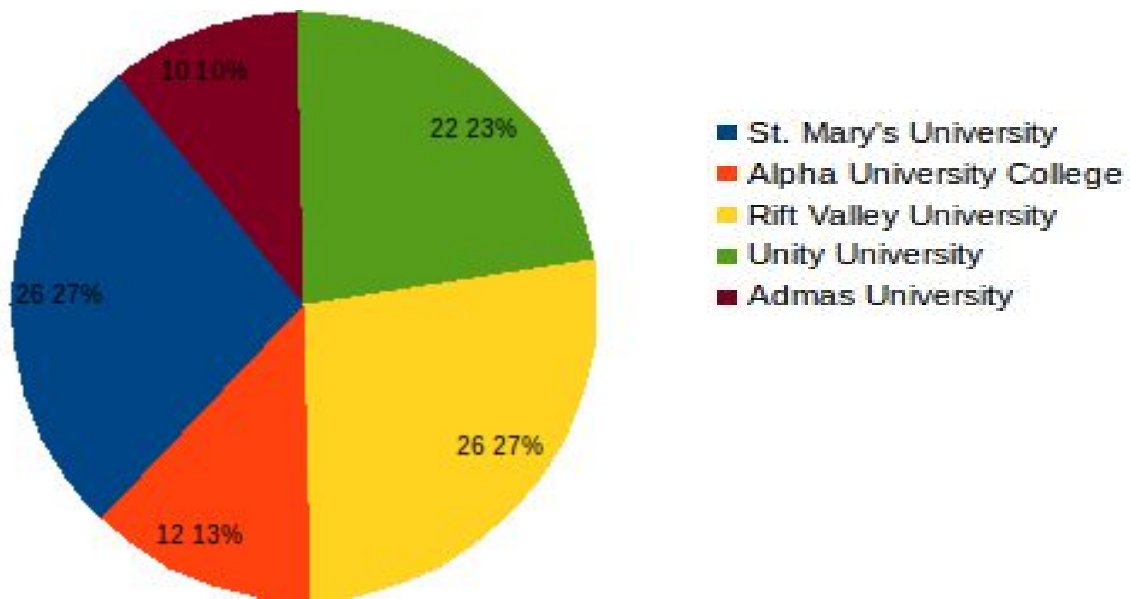


Figure 2. 7: Frequency & Percentage of respondents for each institution

Variable	Groups	Frequency	Percent
Gender of respondent:	Male	54	56%
	Female	42	44%
	Total	96	100%
Current Status	Student	53	55%
	Employee	43	45%
	Total	96	100%
Work Experience	Below 2 Years	18	19%
	From 3 to 5	10	10%
	More than 5 Years	16	17%
	Total	44	46%
Not Filled		52	54%
G. Total		96	100%

Table 4. 1: Demographic Characteristics of respondents

As can be seen from the above demographic data, respondents from St. Mary's University and Rift Valley Universities were highest compared to the rest (27 %) each, while Unity University took the second highest share (23%), Alpha University College and Unity University follows at equal 13 percent, and respondents from Admas University College were the lowest in number (10%). Meanwhile, large majority (56%) of the participants was found to be males and the other 42% are female. It was also indicated that 19% and 17% of the participants' work experience is below 2 years and more than 5 years respectively. And 10% of them have work experience ranged in between 3 to 5 years. In addition, while students take the lions hare of the respondent's composition (55%), the remaining 45% are employees.

4.1.2. Part two

i. Perception of the respondents on QMS generally

The major components of QMS are assessed under this part of the question. This part also has a total 9 groups namely, Quality at organization level, Leadership and their commitment, Quality Planning, Resource, Operation, Customer Communication,

Performance evaluation, Improvement and the other quality related issues. Each group has detail parameters that contribute for the major group and also for the QMS as a whole.

i. Quality at organization level

No Obstacle  Very Severe Obstacle

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
6	The quality awareness level within your university/college	9	28	32	12	14	3.06	33%
7	How high is the role and participation of the community of the university in assuring quality	6	11	32	38	6	3.22	33%
8	Quality defined in the university/college clearly	71	25				1.26	74%
9	Is quality a responsibility of everyone in university	69	27				1.28	72%
10	Does the university/college understand the customer's definition of quality	75	21				1.22	78%
11	Does university/college have quality objective	76	19				1.2	79%
12	The University/college solve the quality related problems	69	27				1.28	72%
Average							1.79	

Table 4. 2: Frequency and mean scores of respondents on perception on quality at organization level

From the table above, for the statement on Question number 6 and 7, 38(33%) respondents conform that there is a moderate obstacle on quality awareness and the role and participation of the university/college community in assuring quality awareness. the mean of these two statements are more than 3 out of 5. The other statements scored less than 2.5 which is the average result.

According to the respondents, generally the quality at organization level has the mean average of 1.79 which is poor.

ii. Leadership and commitment

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
13	How high is the top management commitment to the QMS initiative?	3	10	38	29	16	2.53	40%
14	Does the university/college have quality manual	66	30				1.31	69%
15	The University/college have quality procedure manual	68	28				1.29	71%
16	Are the functions (the responsibilities and authorities) and inter-relationships of all the staff defined?	67	28				1.3	70%
17	Does the top managers provide feedback to the employees about their work	55	41				1.43	57%
18	To what extent the management listen to employees	6	19	49	13	6	3	51%
19	How high is your trust on managers?	6	24	46	13	7	3.09	48%
20	The management encourage ideas and suggestions	10	22	39	13	12	3.05	41%
21	The University evaluate its activities	60	36				1.38	63%
22	Did the management identify the constraints of employees to Their performance?	70	26				1.27	73%
Average							1.97	

Table 4. 3: Frequency and mean scores of respondents on perception on Leadership and their commitment

iii. Quality Planning

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
23	Does he university/college plan for quality	72	24				1.25	75
24	To what extent the university/college Prevent, or reduce, undesired effects.	6	13	47	15	15	2.79	49
25	The university/college plans actions to address risks and opportunities.	52	44				1.46	54
Average							1.83	

Table 4.4: Frequency, mean scores of respondent's perception and percentage on Quality Planning

According to the above table, most of the statements of quality planning score a mean below average which is 2.5. Therefore the overall practice in the organizations regarding

quality planning is 1.83 which less than the average. It is therefore implies that the practice of quality planning is poor.

iv. Resources

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
26	How effective is the university/college in determining and providing resources necessary for the teaching leaning process	10	22	29	23	12	2.95	30
27	To what extent the university/college provides and maintains the infrastructure necessary for the teaching-learning.	16	21	36	11	12	3.19	38
28	The level of establishment, provision and maintenance the environment necessary for the teaching learning activities.	15	6	47	23	5	3.03	49
Average							3.06	

Table 4. 4: Frequency, mean scores of respondent's perception and percentage on Resource

As shown from the above table, most of the statements of resources have a mean score of more than the average which is 2.5. As a result, the average mean of the resource becomes 3.06 which are relatively good.

v. Operation

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
29	The University plan, implement and control the processes needed, and to implement actions to address risks and opportunities.	10	10	49	15	12	2.91	51
30	The university sets a clear requirement for its service	74	22				1.23	77
Average							2.07	

Table 4. 5: Frequency, mean scores of respondent's perception and percentage on Operation

When we see the operation of the universities/colleges from the table above generally, it is below average. So the operation within the institutions is poor.

vi. Customer communication

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
31	Make available all the necessary information to the customer	14	12	31	18	21	2.79	32
32	The extent to which the university/college handles inquiries.	10	15	42	18	11	2.95	44
33	The level of updating all changes in the university/college.	11	18	38	19	10	3.01	40
34	How frequently obtain customer feedback relating to service quality.	8	24	35	20	9	3.02	37
35	The extent to which the university/college handles customer complaints.	63	33				1.34	66
36	The university/college establishes specific requirements for contingency actions if relevant.	80	16				1.17	83
37	The university reviews the requirements for the services (statutory and regulatory requirements applicable to the teaching learning process)	76	20				1.21	79
Average							2.21	

Table 4. 6: Frequency, mean scores of respondent's perception and percentage on Customer Communication

When we see the customer communication in all selected universities or colleges for the statements, the level of updating all changes in the university/college and how frequently obtain customer feedback relating to service quality scores the mean value of above 3 which implies for these specific issues the institutions are working well. But because of the other statements' result under this group the overall average mean of the customer communication becomes 2.21 which is below 2.5(the average expected result). Therefore this parameter of the QMS also needs improvement.

vii. Performance evaluation

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
38	The processes of service need to be monitored and measured are identified.	67	29				1.3	70
39	The university/college established Monitoring, measurement, analysis and evaluation, method	71	25				1.26	74
40	The frequency for the analysis and evaluation of monitoring and measurement results are defined	3	12	42	27	12	2.66	44
41	Internal audit processes are defined in university/college	6	4	63	12	11	2.81	66
42	The University's management review process is defined clearly	9	2	60	15	9	2.86	63
Average							2.18	

Table 4. 7: Frequency, mean scores of respondent's perception and percentage on performance evaluation

This parameter is the other major area in QMS requirement (ISO 9001:2015). Accordingly, when we see mean score of each sub parameters under this issue, even though most of them scores around the average value, the average mean of the main parameter scores 2.18. This shows the institutions are poor on performance evaluation especially, on establishing Monitoring, measurement, analysis and evaluation, method it is because this sub parameter has the least mean score 1.26.

viii. Improvement

Q#	Statement	5(2.5)	4(2.5)	3	2	1	Mean	% of the max Frequency Scale
43	How often the university/college take actions to control and correct non conformity	73	23				1.24	76
44	How frequently evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere.	4	12	5 8	6	1 6	2.81	60
45	Does the university/college review the effectiveness of any corrective action taken	68	28				1.29	71
46	The University/college continually improves the suitability, sufficiency and effectiveness of the available QMS.	7	9	5 1	1 6	1 3	2.8	53
Average							2.04	

Table 4. 8: Frequency, mean scores of respondent's perception and percentage on Improvement

Improvement is the other major issue for any organization especially for PHEIs in order to assure quality based on the mentioned requirement. But as shown from the above table, from the listed four sub parameters two of them are scored under average (2.5) when we see the percentage of maximum frequency scale 76% of the respondent's scores a mean of 1.24 which is the least from the other parameters' respondent. Like the previous major parameters the average mean score of Improvement in the selected universities/colleges is 2.04 showing that there is poor improvement within the institutions.

ix. Other quality related issues

Q#	Statement	5	4	3	2	1	Mean	% of the max Frequency Scale
47	Knowledge and skill of teachers	17	15	36	20	8	3.14	38
48	Capability of teachers to teach	14	16	44	12	10	3.13	46
49	Teaching materials and aids	17	27	29	9	14	3.25	30
50	Understanding of quality education	12	15	45	10	14	3.01	47
51	Top management commitment	21	15	30	17	13	3.15	31
52	Customer handling mechanism	20	17	31	16	12	3.18	31
53	Evaluation and monitoring mechanism	15	21	32	14	14	3.09	33
54	Student assessment method	17	15	35	15	14	3.06	37
55	Students' attitude to learn	21	16	30	15	14	3.16	31
56	Students' capability to capture	21	15	39	9	12	3.25	41
Average							3.14	

Table 4. 9: Frequency, mean scores of respondent's perception and percentage on other quality related issues

This group from the questioner evaluates, if the general quality related issues are exercised in general manner. The reason of getting the perceptions of the respondents is for two reason. The first one is for triangulation purpose that is for the verification of the evaluation result is correctly evaluated or not. Based on this, as we have shown on the above table, most of sub parameters are scored more than the expected average. Because of the different results, the respondents didn't respond properly for these current parameters or the above major parameters.

The second reason is for getting the perception of respondents on the listed sub variables how the institutions are performing the listed issues. Accordingly when we see the above

table, all of sub variables scored more than the mean average. As a result, the total mean average becomes also 3.14 showing that generally all the institutions are good in them.

4.1.3. Part Three

The type of questions included under this part of the questioner open ended type of the questions. The aim of these questions was to get the general perception of the respondents about the quality matters within the institutions and also to crosscheck the main parts of the questions are addressed well or not. But almost all of these parts of the questions are not answered by the respondent. The reason was most of the respondents were not willing to answer such type of question.

4.2. Summary of Major Findings

In this study, an attempt was made to explore challenges faced by PHEIs and how these challenges are affecting the quality of education being delivered by them. In order to achieve this major objective, analysis was made on obtaining the perception of respondents with regard to quality of education being provided by PHEIs based on the ISO 9001:2015 (QMS requirements), identifying major challenges PHEIs are faced with, and the impact of these challenges on quality of education. Examinations were also made bases on the ISO standard. Accordingly, this research paper concentrates on the basic requirements to make any organization successful. In our case, since the researcher believes that if all EPHIs create a QMS based on ISO 9001:2015, and implement it accordingly, they are able to assure quality. Therefore the major parameters are taken from this standard.

Accordingly, all the relevant parameters are evaluated well. But as a summary, these detail parameters are grouped in the way that can address related quality issues and they are grouped as nine main areas. These areas are summarized in the following table.

No	Group	Average Mean	% of the max Frequency Scale
1	Quality at organization level	1.79	63.09
2	Leadership and commitment	1.97	58.12
3	Quality Planning	1.83	59.32
4	Resources	3.06	50.53
5	Operation	2.07	64.00
6	Customer communication	2.21	54.43
7	Performance evaluation	2.18	63.40
8	Improvement	2.04	65.00
9	Other quality related issues	3.14	36.50

Table 4. 10: The mean average scores of respondent's perception and maximum percentage of the frequency on major parameters

In addition, from the observation made, though most of the institution's quality assurance and the related offices are not open. It was very difficult to make the observation. But it is observed that St. Mary's University and Unity University has better experience in participating the quality related issues by their own initiation in addition to HERQA's requirements.

CHAPTER FIVE: PROPOSED MODEL

Based on the findings from different literatures and the primary data gathered by both the questioner and from the researcher's direct observation, the researcher recommended the following model to be implemented by the Ethiopian higher education institutions.

5.1. Input

An important contribution of quality management thinking is to focus attention on the effect of organizational input on the quality of goods or services produced (Dill, 1995). Adapting this perspective to higher education would imply attending to two basic areas: requirements of customers & other interrelated parties (stakeholders) and resources.

Requirements of customers & other interrelated parties (stakeholders):- imply basically regulatory/statutory body's requirements in the case of higher education these , ISO 9001:2015 (QMS Requirement), students/Parents expectation and employers requirement.

Resources: - are necessary materials, human resource, financial resource, and material resources.

5.2. Process

From the mentioned models in chapter two of this thesis, ISO is the the best model to implement the new proposed model. As mentioned in the literature, most of the models are not successful in achieving quality in education sectors.

According to different scholars, efforts in developing model for higher education are weakened by the absence of an agreed model for quality management.

The New Model

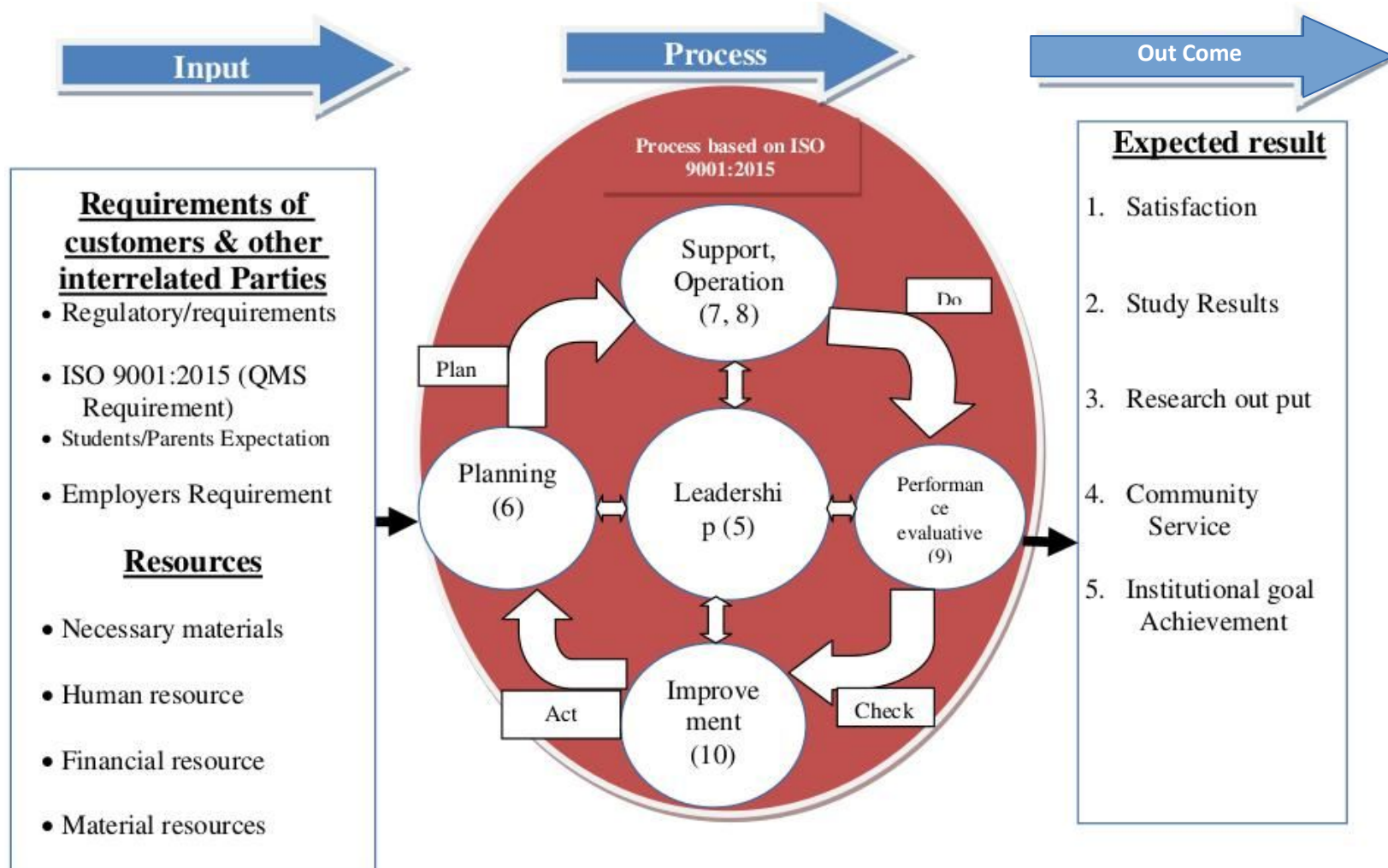


Figure 5. 1: The New Proposed Quality Management System Model for EPHEIs

For example, Birnbaum (2000) reviewed seven higher education management model fades including TQM and stated that each was eventually abandoned.

Furthermore, the survey by Birnbaum and Deshotels (1999) of 469 higher education institutions in the United States concluded that the adoption of TQM in higher education is both a ‘myth and illusion’. In addition, Vazzana et al. (2000) confirmed that TQM is not focused on core teaching and learning processes. Surveys of TQM users showed widespread dissatisfaction, with a ‘success rate of less than 30%’. Myers and Ashkenas (1993), for example found that two thirds of the organizations surveyed felt their TQM programs were failing to have any impact. With these reasons, I emphasizes what Seymour (1991) reported as perceived frustration in the implementation of TQM in higher education institutions: a high time investment due to personnel training; insufficient administrative commitment; resistance to change; the difficulty of moving from the superficial application of TQM tools to the adoption of quality management as an operating philosophy; team leaders and members who have little experience in working as a team; and organizational concern that the results are not sufficiently tangible. Finally, the excellence models (EFQM, ‘The Baldrige’) do not contain a real system and can only be used successfully for excellent organizations.

As a result, I prefer to use the ISO 9001:2015 as it has lots of benefits to implement the new proposed model. Generally this model has a great emphasis on process approach, risk-based thinning and continual improvements (ES ISO 9001:2015,).

Therefore, under this part of the new proposed model,

The support and management areas can be managed by implementing ISO quality management models but they are not adapted to the core education processes. Therefore, sufficient attention should be paid to the specific educational processes concerning quality management. The remainder of this section will describe these education processes taking into account the following criteria to be used in developing them, namely: Leadership, Support, Operation, Performance evaluative & Improvement. These criteria are totally adopted from the ISO 9001:2015 quality management systems and it employed the PDCA (Plan, Do, Check and act) cycles.

5.3. Outcome

The end results at higher education after implementing this model are

- Satisfaction:- this is the satisfaction of stakeholders in this case students, parents of the students and the governing bodies
- Study result: especially students and the academic communities of the higher education institutions will produce relevant and valuable study result after completing the study and from the satisfied students and academicians within the private higher education.
- If this model is implemented well the other outcome will be a value adding service for the community.
- The other outcome will be the institutional goal achievement. Since this model is developed for Ethiopian private higher education institution, the institutions will achieve the institutional goal in addition to the goal of the governing bodies.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

Under this chapter, the implications of the findings are stated in detail so as to recommend solutions. And finally, the proposed model is presented.

6.1. CONCLUSIONS

Higher education institutions are the most vital place to guide the future and must continue to be a centerpiece in the national capacity building, sustainable development, and poverty reduction endeavors of any government. However, the findings from literatures by different authors who have undertaken research on this area and also findings from primary data sources while undertaking this study showed that currently, EPHEIs are confronted with variety of challenges and there by quality of education is being highly affected. Unfortunately, the burden was found to be even higher on private higher education sectors.

Assuming that statistically significant results can be used as a basis for noteworthy conclusions, I conclude that my main findings are on the main points (The general quality level in the organization, Leadership and commitment, Quality Planning, Operation, Customer communication, Performance evaluation, and Improvement) are poorly practiced with in the selected PHEIs.

Therefore, Based on the literature studies and the findings from primary data source the current system that comes from MoE and also HERQA that enforces the education sector to implement to assure quality is not effective. It has been found that it is important to build the system from the base and engage people in the implementation to get the desired effect of a QMS. Keeping it simple and understandable from the beginning is important and start analyzes a few important processes.

6.2. RECOMENDATIONS

In order to address the challenges regarding quality of education identified in the previous chapters and to refresh the achieved customer satisfaction the following recommendations were forwarded:

- In order to implement the proposed quality management system effectively, it is advised for all PHEIs first,
 - a) A detail understanding about what quality concerns about.
 - b) Better to understand that the institutions will be the primary beneficiary of implementing the proposed quality management model.
 - c) The initiation of implementing quality management system model should starts from the institution.

- In order to assure educational quality, it is recommended that the accreditation and re-accreditation process also give emphasis to educational process, outputs and outcomes in addition to the implementation of the proposed quality management model.

- With regard to the issuance of rules and regulations, in order to facilitate the smooth operation of PHEIs and to support them in their effort on enhancing quality education, the government (MoE/HERQA) need to:
 - a) Harmonize the activities of the governing bodies with the institutional initiation to fill the gap of both the new quality management model and the rules and regulations of the the government.
 - b) Minimize the various regulatory bodies evolved in the sector so that avoid the issuance of multiple regulations and their overlapping manner,
 - c) Encourage PHEIs to internalize the implementation of quality management model from them.

- It is also recommended that all PHEIs to implement the proposed quality management model accordingly.
- For the effectiveness of the proposed model, PHEIs has to consider :-
 - a) Create awareness for both the employees, students and other stakeholder on educational quality to have a common understanding among the entire stakeholder and the institutions.
 - b) Before implementing the quality management model, creating awareness among all stakeholders about what is happening with in the institutions should be the primary task of any PHEIs.

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APPENDIX-A



St. Mary's University

School of Graduate Studies

Institute of Quality and Productivity Management

Survey on Quality Management System in Selected Higher Education Institutions

QUESTIONNAIRE

This questionnaire is prepared to collect data regarding the existence of quality management system within your University/College. No personal information is required and the result of the study will not come back to you in anyway. This questionnaire has three parts and each of them has their own purposes. Thank you for your sincere cooperation and willingness to be part of this research.

PART ONE

Personal Information

1. Name of Higher Education Institution -----
2. Gender of respondent: Male Female
3. Current Status -----(Student, Employee, already graduated & working somewhere)
4. If you are employee, what is your position _____
5. Work Experience below 2 years from 3-5 years More than 5 years

PART TWO

This part of the questionnaire is prepared to understand your level of the following parameters within concerned university. Please answer the following questions accordingly and put “X” in the respected area.

Please keep in mind that these parameters are only concerned with your experience at your University/College:-

5=No obstacle, 4= minor obstacle, 3= moderate obstacle, 2= major obstacle, 1= very severe obstacle.

No	Parameters	1	2	3	4	5
I	Quality at organization level					
6.	The quality awareness level within your university/college					
7.	How high is the role and participation of the community of the university in assuring quality					
8.	Quality defined in the university/college clearly	<input type="checkbox"/> Yes <input type="checkbox"/> No				
9.	Is quality a responsibility of everyone in university	<input type="checkbox"/> Yes <input type="checkbox"/> No				
10.	Does the university/college understand the customer’s definition of quality	<input type="checkbox"/> Yes <input type="checkbox"/> No				
11.	Does university/college have quality objective	<input type="checkbox"/> Yes <input type="checkbox"/> No				
12.	The University/college solve the quality related problems	<input type="checkbox"/> Yes <input type="checkbox"/> No				
II	Leadership and commitment					
13.	How high is the top management commitment to the QMS initiative?					
14.	Does the university/college have quality manual	<input type="checkbox"/> Yes <input type="checkbox"/> No				
15.	The University/college have quality procedure manual	<input type="checkbox"/> Yes <input type="checkbox"/> No				
16.	Are the functions (the responsibilities and authorities) and inter-relationships of all the staff defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No				

17.	Does the top managers provide feedback to the employees about their work	<input type="checkbox"/> Yes <input type="checkbox"/> No				
18.	To what extent the management listen to employees					
19.	How high is your trust on managers?					
20.	The management encourage ideas and suggestions					
21.	The University evaluate its activities	<input type="checkbox"/> Yes <input type="checkbox"/> No				
22.	Did the management identify the constraints of employees to Their performance?	<input type="checkbox"/> Yes <input type="checkbox"/> No				
III	Quality Planning					
23.	Does he university/college plan for quality	<input type="checkbox"/> Yes <input type="checkbox"/> No				
24.	To what extent the university/college Prevent, or reduce, undesired effects.					
25.	The university/college plans actions to address risks and opportunities.	<input type="checkbox"/> Yes <input type="checkbox"/> No				
IV	Resources					
26.	How effective is the university/college in determining and providing resources necessary for the teaching leaning process					
27.	To what extent the university/college provides and maintains the infrastructure necessary for the teaching-learning.					
28.	The level of establishment, provision and maintenance the environment necessary for the teaching learning activities.					
V	Operation					
29.	The University plan, implement and control the processes needed, and to implement actions to address risks and opportunities.					
30.	The university sets a clear requirement for its service	<input type="checkbox"/> Yes <input type="checkbox"/> No				

VI	Customer communication				
31.	Make available all the necessary information to the customer				
32.	The extent to which the university/college handles inquiries.				
33.	The level of updating all changes in the university/college.				
34.	How frequently obtain customer feedback relating to service quality.				
35.	The extent to which the university/college handles customer complaints.				
36.	The university/college establishes specific requirements for contingency actions if relevant.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
37.	The university reviews the requirements for the services (statutory and regulatory requirements applicable to the teaching learning process)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
VII	Performance evaluation				
38.	The processes of service need to be monitored and measured are identified.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
39.	The university/college established Monitoring, measurement, analysis and evaluation, method	<input type="checkbox"/> Yes <input type="checkbox"/> No			
40.	The frequency for the analysis and evaluation of monitoring and measurement results are defined				
41.	Internal audit processes are defined in university/college				
42.	The University's management review process is defined clearly				
VIII	Improvement				
43.	How often the university/college take actions to control and correct non conformity				

44.	How frequently evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere.					
45.	Does the university/college review the effectiveness of any corrective action taken	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	
46.	The University/college continually improves the suitability, sufficiency and effectiveness of the available QMS.					
IX	Other quality related issues					
47.	Knowledge and skill of teachers					
48.	Capability of teachers to teach					
49.	Teaching materials and aids					
50.	Understanding of quality education					
51.	Top management commitment					
52.	Customer handling mechanism					
53.	Evaluation and monitoring mechanism					
54.	Student assessment method					
55.	Students' attitude to learn					
56.	Students' capability to capture					

PART THREE

This part of the questionnaire is prepared to get additional information on quality of education at your university. Please Circles your answer from the listed. The answers might be more than one.

1. How is quality defined within the institution? It is
 - a) Degree of achievement as compared to the standard.
 - b) The degree to which the service satisfies the customer's expectation.
 - c) Protecting the service from defects that can create customer complaints.

- d) Quality is conformance to requirements.
- e) Fitness for purpose.

2. How does the university/college determine causes of poor quality (CPQ)?
- a) Cause-and-effect (fishbone) diagram
 - b) By asking "why" 5 times (Five why)
 - c) Pareto charts
 - d) Histogram
 - e) Trend analysis
 - f) Satisfaction survey
 - g) None
 - h) If any other tool.....

2. What prevention methods are used to control CPQ

.....

3. Has the university a documented procedure to enable preventive action to be taken to eliminate the causes of potential non-conformities and prevent occurrence?

.....

4. Is there continues quality program training for the University's community?

.....

.....

5. Is there any other team (quality council, quality steering committee, etc) in the university

.....

.....

Other remarks,

Thank you for your answers!

APPENDIX-B

Case Processing Summary

		N	%
Cases	Valid	15	100.0
	Excluded ^a	0	.0
	Total	15	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.954	51

APPENDIX-C

Variable	Groups	Frequency	Percent
Name of Higher Education Institution	St. Mary's University	26	27%
	Alpha University College	12	13%
	Rift Valley University	26	27%
	Unity University	22	23%
	Admas University	10	10%
	Total	96	100%
Gender of respondent:	Male	54	56%
	Female	42	44%
	Total	96	100%
Current Status	Student	53	55%
	Employee	43	45%
	Total	96	100%
Work Experience	Below 2 Years	18	19%
	From 3 to 5	10	10%
	More than 5 Years	16	17%
	Total	44	46%
	System	52	54%
	Total	96	100%
QUALITY AT ORGANIZATION LEVEL			
Activities	Groups	Frequency	Percent
6.The quality awareness level within your university/college	very severe obstacle	14	15%
	major obstacle	12	13%
	moderate obstacle	32	33%
	minor obstacle	28	29%
	No obstacle	9	9%
	Total	95	99%
	System	1	10%
	Total	96	100%
7.How high is the role and participation of the community of the university in assuring quality	very severe obstacle	9	94%
	major obstacle	11	12%
	moderate obstacle	32	33%
	minor obstacle	38	39%

	No obstacle	6	1%
	Total	96	100%
8.Quality defined in the university/college clearly	Yes	71	74%
	No	25	26%
	Total	96	100%
9.Is quality a responsibility of everyone in university	Yes	69	72%
	No	27	28%
	Total	96	100%
10.Does the university/college understand the customer's definition of quality	Yes	75	78%
	No	21	29%
	Total	96	100%
11.Does university/college have quality objective	Yes	76	79%
	No	19	20%
	Total	95	99%
	System	1	10%
		96	100%
12.The University/college solve the quality related problems	Yes	69	72%
	No	27	28%
	Total	96	100%
OTHER QUALITY RELATED ISSUES			
47.Knowledge and skill of teachers	very severe obstacle	8	83%
	major obstacle	20	21%
	moderate obstacle	36	38%
	minor obstacle	15	16%
	No obstacle	17	18%
	Total	96	100%
48.Capability of teachers to teach	very severe obstacle	10	10%
	major obstacle	12	13%
	moderate obstacle	44	46%
	minor obstacle	16	17%
	No obstacle	14	15%
	Total	96	100%
49.Teaching materials and aids	very severe obstacle	14	15%
	major obstacle	9	94%
	moderate obstacle	29	30%
	minor obstacle	27	28%
	No obstacle	17	18%
	Total	96	100%
50.Understanding of quality education	very severe obstacle	14	15%
	major obstacle	10	10%

	moderate obstacle	45	47%
	minor obstacle	15	16%
	No obstacle	12	13%
	Total	96	100%
51.Top management commitment	very severe obstacle	13	14%
	major obstacle	17	18%
	moderate obstacle	30	31%
	minor obstacle	15	16%
	No obstacle	21	22%
	Total	96	100%
52.Customer handling mechanism	very severe obstacle	12	13%
	major obstacle	16	17%
	moderate obstacle	31	32%
	minor obstacle	17	18%
	No obstacle	20	21%
	Total	96	100%
53.Evaluation and monitoring mechanism	very severe obstacle	14	15%
	major obstacle	14	15%
	moderate obstacle	32	33%
	minor obstacle	21	22%
	No obstacle	15	16%
	Total	96	100%
54.Student assessment method	very severe obstacle	14	15%
	major obstacle	15	15%
	moderate obstacle	35	37%
	minor obstacle	15	16%
	No obstacle	17	18%
	Total	96	100%
55.Students' attitude to learn	very severe obstacle	14	15%
	major obstacle	15	16%
	moderate obstacle	30	31%
	minor obstacle	16	17%
	No obstacle	21	22%
	Total	96	100%
56.Students' capability to capture	very severe obstacle	12	13%
	major obstacle	9	94%
	moderate obstacle	39	41%
	minor obstacle	15	16%
	No obstacle	21	22%