

**INFLUENCE OF TOTAL QUALITY MANAGEMENT  
IMPLEMENTATION ON PERFORMANCE OF INSTITUTIONS  
OF HIGHER LEARNING: THE CASE OF INSTITUTE OF  
ADVANCED TECHNOLOGY IN KENYA**

**BY**

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Award of the Degree of Master of Arts in Project Planning and Management of the  
University of Nairobi.**

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## DECLARATION

This Research Project Report is my original work and has not been presented for an award in any other University.

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## **DEDICATION**

This Research Project Report is dedicated to my Mum Mariam Mtongolo and my sisters Agnes, Jane, Daines and Caroline. Thank you for your unconditional love and support. Special thanks to Edwin Atitwa and Elijah Muhindi for their support during the period I was working on this project report.

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## **ACRONYMS / ABBREVIATIONS**

<b>IAT</b>	-	Institute of Advanced Technology
<b>QM</b>	-	Quality Management
<b>TQM</b>	-	Total Quality Management
<b>UNESCO</b>	-	United Nations Education Scientific and Cultural Organization
<b>ISB</b>	-	IAT School of Business
<b>EBCL</b>	-	European Business Competence License
<b>ICDL</b>	-	International Computer Driving License
<b>NCC</b>	-	National Computing Centre
<b>TFU</b>	-	Teaching for Understanding
<b>CBD</b>	-	Central Business District
<b>MBO</b>	-	Management by Objectives

## **ABSTRACT**

Total Quality Management (TQM) is a comprehensive and structured approach to organizational management that seeks to improve the quality of products and services through ongoing refinements in response to continuous feedback. Although TQM originated in the manufacturing sector, its principles can be applied to almost every type of organization. This study aimed at assessing the influence of Total Quality Management Implementation on performance of Institutions of Higher Learning, a case of the Institute of Advanced Technology. More specifically it aimed at examining how leadership, customer satisfaction, employee involvement and student involvement influence performance at the Institute of Advanced Technology. The study adopted a descriptive survey design. The target population of the study was 1350 which comprised students and staff of four IAT branches. A sample size of 270 respondents was used which is 20% of the target population, this is higher than 10% of accessible population as recommended by Mugenda and Mugenda (1999). Stratified random sampling method was used to achieve the desired representation from the various sub-groups. Pilot testing of the data collection instrument was performed by administering the questionnaires to 10% of the sample size. To establish the validity of the research instrument content validity was used; to check reliability of the instrument, Cronbach's alpha methodology based on internal consistency of the research instrument was used. An alpha value of 0.849 was obtained, thus the research instrument used was confirmed to be reliable. After data collection, the questionnaires were cleaned, coded, organized and analyzed. Descriptive statistics and Correlation, using Karl Pearson's Product Moment Coefficient were used to analyse the data and establish the relationship between the dependent variables and the set of independent variables using SPSS software. The study found out that the rate of importance attached to customers by employees and managers had a mean of 9.00 which is close to very important from the Likert scale and had a very small standard deviation of 0.202 which indicates that employees and managers place a high value on customers during their service delivery. The rate on employee involvement in the implementation of TQM has a mean of 7.89 and a small standard deviation of 1.453 from the Likert scale which indicates that majority of the respondents were in agreement that they get involved in TQM implementation to a greater extent. Student involvement in the implementation of TQM at the Institute has a mean of 7.44 which is full implementation on the Likert scale and has a small standard deviation of 1.29 which indicates that majority of the respondents indicated that students are active team players in the implementation of TQM at the institute of Advanced Technology. Organizations need to therefore ensure that their staff and relevant stakeholders know the mission, vision and values of those organizations since this has a bearing on the quality and performance. The study concluded that there needs to be an integrated system that ensures communication between the management, lecturers, other employees and the general student fraternity to help in reducing disputes and improving performance. Future studies could evaluate the influence of TQM implementation in corporate institutions like the banks, insurance companies and other service sector organizations.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

This study was concerned with establishing the influence of TQM implementation on performance of IAT. The study was carried out at four branches of IAT in Nairobi. This chapter gives background information of the Institute of Advanced Technology (IAT), when it was started and how it has experienced tremendous growth over the years. It also gives a brief description of the challenges it has been facing in regards to competition and insights of steps that can be taken to ensure they stay ahead of the competition.

Quality authorities have put forth several approaches to improve company performance. These approaches are embodied in a set of quality management practices, known as Total Quality Management (TQM). On account of these policies, different approaches have been adopted for the introduction of quality management in institutions of higher learning. These approaches include; self-assessment, external assessment of the institutions, accreditation and certification systems. Quality Management (QM) presents a strategic option and an integrated management philosophy for organizations, which allows them to reach their objectives effectively and efficiently, and to achieve sustainable competitive advantage (Goldberg and Cole, 2002).

Several studies on influence of quality on performance of institutions of higher learning have been carried out. Maingi (2012) found out that there is a positive relationship between quality assurance and academic performance and there is a significant positive relationship between quality assurance and customer satisfaction. The study concluded that there needs to be an integrated system that ensures communication between the management, lecturers, other employees and the general student fraternity to help in reducing disputes and improving performance.

A similar study on quality in higher education was done by Odhiambo (2011) and he observed that higher education in Kenya must be ready to reform and to adapt to modern demands for quality. It was concluded that quality assurance could play a key role in initiating these reforms to revitalise the weak higher education system. Investments by the universities and government

in the quality improvement of higher education through quality assurance structures could be a prerequisite for the production of highly competent experts, which would, in turn, contribute to the competitive economy.

The environment under which universities are operating in Kenya has undergone remarkable changes during the last decade. The universities have been increasingly subjected to a variety of demographic, social, economic and technological changes, which obviously require a new direction of leadership; employee involvement in institutional matters to ensure motivation and retention; customer satisfaction to ensure competitive success; student involvement to gain their confidence. Despite the changed circumstances for the universities, they have continued to increase enrolments. Immediately after independence in 1963, university education in Kenya began with just 571 students enrolled in Nairobi University College (Weidman, 1995). From the 1980s, enrolment in public universities increased greatly from 2500 in 1982–83 to 20,837 in the 1990–91 academic year and over 40,000 in 1996 up to about 56,000 currently.

This figure does not reflect the total number especially those enrolled under the ‘parallel degree programmes’. Between 1985 and 2002 alone, the number of higher education students in Kenya increased by 27% (Materu, 2007). In the East and Central African region, Kenya’s higher education system is expanding and currently has the highest number of institutions and students. Unfortunately, this rapid growth has not been matched by increased funding.

University education has always been an important priority in the public agenda. A recent Carnegie Corporation study of African universities (Carnegie Corporation, 2010) reported that universities and other institutions of higher education were experiencing resurgence after years of neglect in favour of primary and secondary education. Based on the challenges discussed, it is clear that with this resurgence there is need for universities to become more daring with institutional transformations if they have to survive. Higher education is a repository and defender of culture, an agent of change in this culture, an engine for national economic growth and an instrument for the realisation of collective aspirations (Johnstone, 1998). There are lessons that Kenya can learn from the advanced countries where universities are increasingly playing a key role in generating knowledge, innovation and human capital required to increase

international competitiveness in a knowledge-based economy (Mora et al., 2010) and where the emphasis is not only on equity but also quality.

This study extended previous research on influence of TQM on performance of institutions of higher learning. A study of the Institute of Advanced Technology and TQM implementation has been looked at in depth. The Institute of Advanced Technology (IAT) is one of the leading ICT and Business learning organizations in Kenya and the East African Region. Established in 1991, IAT has grown from an initial single centre of 3-classrooms to a national training institution with 9 Campuses in Nairobi, Mombasa and Nakuru including a "state of the art" IAT School of Business (ISB) in the heart of Nairobi CBD. IAT has an infrastructure of more than 80 classrooms, 1000 computers and over 200 Lecturers and Instructors.

IAT remains committed to high levels of excellence in the provision of quality ICT and Business training programmes. IAT partners with both local and international partners in offering various products. In particular, IAT has partnered with Maseno University, St. Pauls University, Oracle University, NCC Education (UK), ICDL, the European Business Competence License (EBCL), Microsoft and Pearson Edexcel. Through these partnerships, IAT offers world class professional/career training education and training in Kenya at Certificate, Diploma and Degree levels.

IAT Campus has gone a notch higher on its teaching methodology. Its methodology Teaching for Understanding (TFU) makes learning more interactive, enriching and fun. It's an educational pedagogy developed by the Harvard Graduate School of Education. It was developed to address the rising concern of the apparent inability of many students to apply school knowledge and skills to real-life problems in workplace settings. The methodology ensures that what students have learnt is not left in the examination room but rather has become part of their life experiences and can be applied in different environments flexibly.

## **1.2 Statement of the Problem**

Traditionally, the quality of education has been essentially an internal affair of the education system, a responsibility of the educational authorities at governmental and institutional levels. Today, however, the quality of education is no longer the exclusive preserve of educational

authorities and professionals. Ministries other than the Ministry of Education are taking an interest. The same is true for NGOs, businesses, and the general public—all putting different pressures on education. The ramifications of this extend far beyond the walls of individual ministries or educational institutions. To explain why this is occurring and why the quality of education has become a more “high profile” issue, it is necessary to take several key factors into account (UNESCO, 2003).

IAT has grown from an initial single centre of 3-classrooms to a national training institution with 9 Campuses in Nairobi, Mombasa and Nakuru including a "state of the art" IAT School of Business (ISB) in the heart of Nairobi CBD. Though IAT has experienced such growth, it has not come without challenges. IAT for a long time enjoyed a monopoly in training of ICT courses like International Computer Driving Licence (ICDL), among others. This has changed in the recent past with many other education institutions offering the same courses. In order for IAT to survive and grow there is need to document the most critical quality management practices used in its education services; while determining the challenges facing the Institute in the implementation of the continuous improvement principle of quality management.

Higher education has experienced rapid growth in the last two decades and this has led to commercial competition imposed by economic forces being experienced in this sub-sector. More and more institutions of higher learning are being set up and it is only those that provide quality education that are going to survive. This therefore necessitates a study to be conducted in order to examine factors that are crucial in ensuring not only survival but growth in these institutions. Though a number of studies have been done on the concept and context of quality management and higher education respectively, the researcher has not come across any that has been done in the context of institutions of higher learning, as a case of the Institute of Advanced Technology. To fill these gaps, this study seeks to establish the extent of the influence of total quality management principles on performance of institutions of higher learning, with a focus on IAT and its branches.

### **1.3 Purpose of the Study**

The purpose of this study was to assess the influence of leadership, customer satisfaction, employee involvement and student involvement on the overall performance of the Institute of Advanced Technology.

### **1.4 Objectives of the Study**

The research objectives that guided the study were:

- i. To assess the extent to which leadership influences performance at IAT.
- ii. To establish the extent to which customer satisfaction influences performance at IAT.
- iii. To determine how employee involvement in institutional planning influences performance at IAT.
- iv. To examine the extent to which student involvement influences performance at IAT.

### **1.5 Research Questions**

The study was guided by the following research questions:

- i. How does leadership influence performance at IAT?
- ii. To what extent does customer satisfaction influence performance at IAT?
- iii. In which way does employee involvement influence performance at IAT?
- iv. To what extent does student involvement influence performance at IAT?

### **1.6 Significance of the study**

This study is important because leadership, employee involvement, customer satisfaction and student involvement are critical factors in ensuring IAT stays ahead of the competition. In the early 90's, IAT was the sole provider of internationally recognized IT courses like International Computer Driving License (ICDL), among others. In the past 10 years there has been a paradigm shift and IAT has faced cut throat competition due to the numerous middle level colleges that have sprouted in the various cities in the country. This has led to dwindling numbers in student registration and therefore necessitated IAT to look for ways of ensuring they stay ahead of the competition.

### **1.7 Delimitation of the study**

This study was delimited to the geographical boundaries of Nairobi County where the four IAT branches under study are located. The other 4 branches in Nairobi and one in Nakuru were not covered by the study. The period of study was year 2013- 2014. The study was also delimited to the variables under study: leadership, customer satisfaction, employee involvement and student involvement.

### **1.8 Limitations of the study**

Major research has been done on Total Quality Management Implementation. However most of it is in relation to the manufacturing industry worldwide. Very little has been done and documented within the service industry more so in institutions of higher learning in Africa. However in most developed countries universities are in the process of reinvention and are increasing their partnerships with business and have strong executive control. Their findings, results and recommendations are well documented, published and available in some accessible sights like the emerald. This helped the researcher overcome the hurdle of getting relevant literature to proceed with research.

The second limitation was that the respondents would be concerned with the extent to which the organization might want them to volunteer information without any repercussions or fear of victimization. This was curtailed by providing a letter of introduction from the University of Nairobi and providing the necessary assurances to the key respondents.

The third limitation was in regards to the fact that this was additional responsibility to the respondents who already had their overwhelming day to day duties. Ample time was given to the respondents with a polite reminder once in a while to ensure a good return rate of the questionnaires.

## **1.9 Assumption of the Study**

The researcher assumed that the respondents were available and willing to fill in the questionnaires. The researcher also assumed that the questionnaires would be filled truthfully and returned on time. The researcher had also assumed that funds required for the research would be available on time. The researcher further assumed that access to relevant research data throughout the study would be granted on time.

## **1.10 Definition of Significant terms**

**Customer** – generally the students are considered as end customers. Johnstone (1995) defines a customer as ‘one to whom we provide information or service’.

**Customer Satisfaction** – Lovelock (1983) defines customer expectations as the “desires or wants of customers”. Following this logic, customer expectations, when exceeded, should lead to customer satisfaction – and ultimately, the customer’s end evaluation of the service quality level provided should also be positive. Based on this scenario, the realization or non-realization of customer expectations would appear to be the primary determinant of customer levels of satisfaction (Oliver, 1993).

**Employee involvement** – employee involvement is defined as the extent to which employees have a sense of control over their work. Employee involvement is signaled by job competence and job autonomy, and is closely associated with perceptions of service quality and job satisfaction (Greenberg et al, 1997).

**Institutions of higher learning** – are those institutions offering post-secondary education and training and include:

- (1) Certificate and Diploma granting institutions, and
- (2) Degree granting institutions (middle level institutions and universities)

**Leadership** - the writings of Novak (2002) suggest that, leadership in the context of higher education may be defined as a personal and professional ethical relationship between those in leadership positions and their subordinate staff, needed in order to appreciate and call forth their full potential. From a strategic quality management perspective, it is the responsibility of quality managers in leadership positions to “do right things” and to “do things right”, i.e. to be both effective and efficient in what they do, (Bennis and Nannus, 1985)

**Performance** - Performance may be defined in several different ways. One definition is what a product performs for a consumer, such as the reliable performance of an automobile (Deighton, 1992). Another definition is one in which the consumer participates in the performance and must play an active role, such as order a meal in a restaurant or attend a workshop, in order to achieve a consumption experience. The performance in higher education is described by the latter characterization, as it requires the active participation of the student to achieve a consumption experience, that is, an education.

**Stakeholders** – These are groups or individuals with whom the organization interacts or has interdependency, plus any individual or group who can affect or is affected by the actions of the company (Lawler, 1994).

**Total Quality Management** – According to Moseley (2009), Total Quality Management can be defined as the engagement of all workplace stakeholders to define, build, measure and assess quality by controlling products, services and people, through planning assurance, control, and continuous improvement feedback activities.

**Quality** - the word quality is derived from the Latin word ‘*qualis*’, which means ‘what kind of’. It connotes a variety of meanings and implies different things to different people. According to Juran, “Quality is fitness for use or purpose”. Crosby considers it as “conformance to standards”. Deming defines quality as “a predictable degree of uniformity and dependability at low cost and suited to market”. In general quality is one, which satisfies customer needs and continuously keeps on performing its functions as desired by customers as per specified standards.

**Quality Gurus** – a guru is an expert in something. Quality gurus are experts in quality and they advance theories, for example TQM theory

### **1.11 Organization of the Study**

The research project report is organized into five chapters. Chapter one which is the introduction includes, the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, basic assumptions of the study, limitations of the study, delimitations of the study and definitions of significant terms.

Chapter two contains the literature review and focused on 4 key areas as described in the objectives of the study.

Chapter three focused on the methodology to be employed. This includes the following sub-areas; research design, population, sample procedures and sample size, instruments, validity and reliability, procedure for data collection and data analysis.

Chapter four focused on results and the discussions of the findings of the research. Data collected from the respondents has been analyzed using descriptive statistics such as mean and standard deviation. Correlation has also been used to study the relationship of aspects of TQM on performance.

Chapter five focused on summary of the findings of the research, conclusions relating to the research objectives, suggestions or recommendations on the factors influencing the implementation of total quality management in institutions of higher learning, and areas that need further research.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This section reviews studies of factors that have shown direct linkage with total quality management in both the commercial sector and institutions of higher learning. The review looks at past research studies and gives an overview of the previous contributions to the problem to enable a better understanding of the research problem.

### **2.2 Leadership and Performance of Institutions of Higher Learning**

Visionary Leadership encompasses the role of top management in defining a vision, mission, strategic objectives, and shared values for the organization's growth and development. In quality management context, the visionary leaders need to emphasize the importance of transformation through open communication to achieve a shared approach to the change. Quality Gurus stressed that leadership is vital for effective implementation of total quality management initiatives.

Taffinder (1995) noted that top management is responsible for quality leadership and providing support to achieve superior performance. He further highlighted the importance of leadership in the process of ascending to world-class status, and emphasized the need for leadership to establish a high-performance culture, high-performance delivery processes and services in support of this objective. Based on extensive studies, researchers have concluded that leadership and top management commitment is the most critical and crucial prerequisite for institutional success when implementing TQM (Dale, 1999).

The news media have been rife with stories of ethical failures by organizations, business and non-business alike. A prominent example was the Enron scandal which came to light in late 2001 as the company applied for bankruptcy (Carroll, et al 2006). Another serious indictment fell on Arthur Andersen, an accounting firm which went bankrupt after it was accused of fraud and complicity in the Enron debacle. Eventually many other scandals were exposed to the public since 2002. They involved many such big names like WorldCom, Global Crossing, Tyco and Adelphia. Since that time, other corporate names have appeared in the news either for allegedly violating the public trust or for raising questions about ethics. During the 1980s, American industry was compelled to undergo a painful process of transformation in response to shrinking

sales and market shares (Marchese, 1996). Seeking answers for these problems, business firms have come to realize that something must be done about their formal basic values and policy. Over the years, they have built and accrued structures that were big, sluggish, control-based and bureaucratic. This structural phenomenon was not limited to the corporate world alone. Health care, government, and education also faced similar problems. These complex unwieldy structures produced an environment vulnerable to the occurrence of unethical events.

Sheer necessity forced many of those businesses to reinvent themselves to become leaner and more agile organizations. Many jumped on the quality management bandwagon which was an outgrowth of Deming's work in Japan after World War II (Blankstein, 1996). The goal was to reinvent the American business firm, revolutionize the American industry and achieve, if not surpass, Japan's economic achievements. Regrettably, while some successes have been documented, many quality management projects have been deemed embarrassing failures (Koch, 2003). Some say that the implementation failure rate is high, even as high as 70 percent. The literature is replete with books and articles that cite many reasons for these failures. However, the most frequently cited reason for the failure of any quality initiative is the lack of viable commitment from management (Maguad, 2002). Oftentimes management is reluctant to change their paradigms or old habits. Managers fail to realize that quality improvement starts with them, that they must lead by example if they have to cause others to behave differently. They also fail to understand that quality management requires a change in the roles, responsibilities, and behaviors of every participant in the organization starting with the leadership.

Unless substantial behavioral change is noticed, quality management will be seen merely as a rhetorical program instead of being an action-oriented program. But how is this substantial behavioral change accomplished? If management must lead by example, then they must lead in a way that cultivates a high level of trust and respect from their subordinates. The top leadership of an organization must model ethical and moral conduct. To sustain the quality initiative in the organization, top management must demonstrate commitment by displaying consistently high ethical standards and by cultivating a high level of trust and respect from members, based not just on stated values but on their willingness to make personal sacrifices for the sake of upholding these values (Lussier et al, 2001).

Moral leadership is determined by what comes from within a person: what a person is and not adherence to a set of behavioral standard. People can be trained to apply policy and behavior. This is only half the equation. The moral leader is more than a person who is conditioned to follow rules or policies. Moral leadership is what one is as opposed to what one does. What one is flows directly from the values he or she possesses. Values are things or principles preferred. The values of an individual, group, or society are standards of desirability and evaluation independent of specific situations. They are what humans want and feel to be the reason for existence. Values regulate the political process and the managerial process and lie at the heart of resource allocations. They are the lenses and filters through which the world is viewed. Codes of ethics created by individuals or organizations come from values. Religions, cultural and social norms, philosophies and legal systems are the sources of values.

Philip B. Crosby, one of America's quality management pioneers, said, "Quality boils down to one word – integrity" (Maguad, 2012). With the Enron debacle and other highly-publicized scandals in the recent past, integrity in doing business is becoming a precious commodity. Integrity boils down to honesty – honesty in dealing with customers, employees, suppliers, and other stakeholders. The quality sciences have transformed the world of business over the past sixty years. Continuous improvement is now firmly imbedded in corporate strategy.

The writings of Novak (2002) suggest that, leadership in the context of higher education may be defined as a personal and professional ethical relationship between those in leadership positions and their subordinate staff, needed in order to appreciate and call forth their full potential. From a strategic quality management perspective, it is the responsibility of quality managers in leadership positions to "do right things" and to "do things right", i.e. to be both effective and efficient in what they do (Bennis et al., 1985). Byrd (1940) suggests that leadership skills can be learned, developed and perfected in order to make leaders more effective at influencing staff behaviour and achievement of team goals. Likert (1961) suggests that leadership resides in a "task or production" function and a "maintenance or people" function, and not in personality traits. These two major functions of leadership are consistent with McGregor (1987) Theory X and Theory Y respectively, and draw attention to the effect of leadership styles on staff performance in a changing work situation (Likert, 1961). Reference to the works of Likert

(1961), suggests that there is a need for greater understanding of staff needs and expectations in a changing work situation. This need coupled with societal pressure for power sharing, has led to increased adoption of team leadership style or a participative democratic style of leadership, and created resistance against purely authoritarian or solo leadership style.

In his model of distributed leadership for managing change in higher educational institutions, Gregory (1996) suggests four dimensions of institutional leadership; symbolic, political, managerial and academic. A true leader embodies the whole institution by winning commitment of others to organizational goals, obtaining resources and presenting corporate image to the external world. Secondly leadership will be political for the institution, gaining support and using and resolving conflicts to achieve its means. His managerial skills pertains to controlling, representing, staffing, structuring, setting goals and communicating, apart from handling budgets, costs, information flow, employee relations, external funding and relations with validating and awarding bodies. Finally his academic role includes being a leading professional, leading others in a collegiate style, recognizing and encouraging quality, fostering and developing talent, intervening, coaching, being a role model of exemplary behavior, taking risks and acting as an agent of change (Marsh, 1992). Michael *et al.* (1997) recommended that top leadership is the key to any TQM programme and the driving force behind success and failure. The TQM programme must be sold and not forced on the employees. Leadership must make the programme attractive and necessary to employees. Good communication, proper training and using benchmarking and research on TQM philosophies and programmes can enhance the success rate.

Increasing organizational competitiveness and the need for the most effective use of human resources have led writers and researchers including Burns (1978) and Nicholls (1988), to study “Transformational Leadership”. They argued that this style of leadership is both desirable and necessary in competitive environments, and requires organizations to be capable of fast, radical change and those aspiring to be the best must be able to lead change rather than just follow it. Top management’s leadership is one of the essential elements of TQM. In every country where TQM has been implemented, there are examples of company executives who have initiated the cultural change and carried their organizations through the quality journey.

In summary, even though there are many alternative forms of management and leadership practices, a human relation, people-oriented leadership style is more likely to lead to staff satisfaction, group cohesiveness, and improved performance results.

### **2.3 Customer Satisfaction and Performance of Institutions of Higher Learning**

According to David Garvin, most definitions of quality were transcendent, product-based, user-based, and manufacturing-based or value based (Garvin, 1984). The transcendent view states that quality is something that is intuitively understood but nearly impossible to communicate. You just know it when you see it (Evans et al, 1999). The product-based view argues that quality is found in the components and attributes of a product. It implies that the higher the amounts of its characteristics, the higher its quality. The user-based says that if the customer is satisfied, the product has good quality. It is based on the presumption that quality is determined by what a customer wants. This leads to a definition of quality which is fitness for intended use or how well the product performs its intended function. According to the manufacturing-based view, if the product conforms to design specifications, it has good quality. Quality then is defined as the desirable outcome of engineering and manufacturing practice, or conformance to specifications. Lastly, according to the value-based perspective, if the product is perceived as providing good value for the price, it has good quality.

Towards the end of the 1980s, many companies have come to embrace a more customer-driven definition of quality (Evans et al, 1999). Quality has come to be defined as meeting or exceeding customer expectations. In order to comprehend this definition, one must first understand the meaning of the term 'customer'. Most people think that the customers are the ultimate purchasers of the product or service and are more specifically referred to as consumers. But before a product reaches the consumer, it may first flow through a chain of many firms or departments, each of which adds some value to the product. This type of customers may be referred to as external customers. It is also important to point out that every employee in a company also has internal customers who receive goods or services from suppliers within the company. Thus, understanding who one's customers are, and what their expectations are, is key to achieving customer satisfaction.

In higher education, the notion of having customers is foreign to many campuses. Even the suggestion of the term can arouse many emotions, preconceptions, and misconceptions (Canic et al, 2000). Faculty and administrators alike are reluctant to call a student or anyone else a customer. They find the commercial flavor distracting and difficult to translate to education. In campuses that do admit they have customers, there is usually a general agreement that the term applies to businesses, government agencies, and the society at large. That is not generally the case with students. Many faculty members feel threatened by the notion that students are customers of the educational process. The idea that students (customers) are partners in developing and delivering quality education (the product or service) threatens the historic, traditional academic role of faculty as purveyor of knowledge. All too often this perspective is reinforced by administrative actions that tend to put the benefits of the institution before the needs of the student body.

Many educational institutions are very hesitant to consider themselves as customer-driven entities (Lewis et al, 1994). Yet one fact has been proven over and over again. Customer-driven organizations are effective because they are fully committed to satisfying, even anticipating customer needs. The future success of colleges and universities will increasingly be determined by how they satisfy their various customers. The successful ones will be those which very clearly identify their mission and the customers they serve.

The centrality of the customer is grounded in history and tradition. Aristotle, in his *Rhetoric*, stated that it is the hearer that determines the speech's end and object (Corts, 1992). The success of the speaker therefore depends on the audience, the recipients of the message. The *Wordsmyth Educational Dictionary* defines the term customer as follows: (a) "one who buys goods or services; shopper, patron"; or, (b) "one who must be dealt with." In a normal commercial sense, definition (a) is probably sufficient. It involves the concept of exchange whereby two parties are willing to trade something for their mutual benefit. The (b) definition is broader and more informal and is suitable for academia. W. Edwards Deming, one of the founders of the modern quality movement, stated that the customer is one who gets your work (Deming, 1992). Juran suggests that we follow the product to see whom it impacts. Anyone who is impacted is a

customer (Juran, 1998). These definitions are generally applicable to all kinds of organizations, profit or non-profit, which serve internal and external customers. “Every one of us is a customer. Every one of us serves customers” (Corts, 1992).

A survey conducted by Management Associate of Europe in conjunction with the American Association and Japanese Management Association (AMA-Brussels, 1988) reported that nearly eighty percent of respondents in a survey of over 3300 business executives in Europe, North America, and Japan believe that improving customer quality service is the key to competitive success in the global market. While individual determinants of service quality may vary from industry to industry, in a general sense, service quality is nothing more and nothing less than the extent to which a service deliverer exceeds or falls short of the customer’s expectations. Following this logic, customer expectations, when exceeded, should lead to customer satisfaction – and ultimately, the customer’s end evaluation of the service quality level provided should also be positive. Based on this scenario, the realization or non-realization of customer expectations would appear to be the primary determinant of customer levels of satisfaction (Oliver, 1993). In terms of which determinants are most important in creating this realization, however, Johnston (1995) provides an interesting dilemma by suggesting that the presence (or absence) of any specific determinant, even when based upon a relatively high importance weighting, should not necessarily be construed to imply the creation of satisfaction/dissatisfaction. Hence, one of the difficulties inherent in assigning importance weightings to any given factor is that researchers may not get a clear picture of their relative impact on the creation of customer satisfaction.

Performance often plays an important role in discussions of consumer satisfaction/dissatisfaction because it is the feature of a good or service that creates the consumption experience. While consumers purchase goods and services they actually consume the performance offered by their purchases. Performance may be defined in several different ways. One definition is that a product performs for a consumer, such as the reliable performance of an automobile (Deighton, 1992). Another definition is one in which the consumer participates in the performance and must play an active role, such as order a meal in a restaurant or attend a workshop, in order to achieve a consumption experience. The performance in higher education is described by the latter characterization, as it requires the active participation of the student to achieve a consumption experience, that is, an education. Performance may be measured simply as “college education

contribution” (Graham and Cockriel, 1989), or in as much detail as well-structured courses, involvement with the faculty, individualized instruction, living and learning program, extracurricular involvement, and social experiences (Baird, 1992).

When we look at customers of higher education, Lewis and Smith observed that every college and university has a mission but very few fully identify who they serve (Lewis et al, 1994). They also noted that even fewer institutions acknowledge that they serve customers. This was surprising given the fact that in order to be effective organizations must be customer-driven. Customer-oriented organizations are successful because they have a unified focus on what they do and who they serve.

The term customer can be defined as the recipient or beneficiary of the outputs of work efforts or the purchaser of products and services. It can be a person, a unit, a department, or an entire organization. Customers have wants, opinions, perceptions, and desires which are often referred to as the voice of the customer. The voice of the customer can also be defined in technical terms as the “standardized, disciplined, and cyclic approach to obtaining and prioritizing customer preferences for use in designing products and services (Foster, 2007).

Developing a customer focus in higher education is vital. An organization needs to clearly identify its current and potential customers because failure to identify them correctly results in wasted efforts and even failure in the entire quality initiative (Sirvanci, 1996). It is highly desirable that different groups within higher education come to a common consensus as to who their true customers are. In order for the total quality philosophy to have a lasting impact on change and quality improvement in higher education, it is important that educational institutions have the right customer focus model.

We need to remember that while students can be considered customers of higher education, they differ from your typical business customers in a number of ways. For example, colleges and universities often admit students selectively based on certain academic standards and requirements. Businesses usually do not do that. In fact, they do not ordinarily prevent

prospective customers from purchasing their products and services. Another difference is that once students are admitted they are continually tested and graded to determine how well they have learned their lessons. They must maintain their good academic standing in order to be able to take more advanced courses and complete their programs of study. Businesses do not do that to their customers (Noe, 1986).

Identifying the customers of higher education is important in order to know how to proceed in establishing a feedback mechanism. Establishing a feedback mechanism is accomplished through a systematic, factual collection of data from customers so that we truly know whether or not the job is done right. The data that is collected should be used responsibly, that is, to resolve problems; otherwise, there is no valid reason for collecting it. The information gathered should be used solely for purposes of continuous improvement within an environment of trust. This takes courage since it signals that one is serious about not doing business as usual. 'The great enemy of courage is not cowardice, but conformity. The vast majority of people yield to the pressures of conformity because it is safe. It is unconventional to set your sights high, to climb out of ruts. That takes courage' (Noe, 1986).

An institution committed to customer satisfaction and continuous improvement will need to work with students, faculty and staff, and other customers to understand their current expectations and also to anticipate their requirements in the future. It is extremely important for the college or university to establish trust within the entire organization where frank and open discussions are allowed, where opinions are respected, and where participants are empowered to take corrective action on poor processes and to express their true feelings about the tasks, processes, and systems that are out of control and requires urgent attention and solution(Noe, 1986).

Educational institutions that truly believe in the quality of their services make strong commitments to their customers. They address the principal concerns of customers, eliminate conditions that might weaken their trust and confidence and communicate clearly and simply to them. Building good customer relationships depends on the quality of customer-contact personnel. This begins with the recruitment process and the selection of employees who show

the ability and desire to develop good customer relationships. These customer-contact employees must understand the products and services well enough to answer any question, develop good listening and problem recovery skills, and feel able to handle problems. Their actions are guided by a common vision, that is, a clear understanding of what actions they may or should take. Educational institutions may need to establish service standards and communicate these standards to all customer-contact personnel. These standards must continually be reinforced. Colleges and universities should implement a process for tracking adherence to the standards and provide feedback to employees to improve their performance(Noe, 1986).

But despite all efforts to satisfy customers, every institution experiences unhappy customers. Customer-contact personnel must be trained to deal with angry customers, to listen carefully to determine the customer's feelings and understand the complaint, and to make every effort to resolve the problem quickly. Information collected from the complaint resolution process should be used to continually improve service processes.

Customer satisfaction is probably the most important element in managing for quality in higher education. It is often used synonymously with quality which focuses on meeting and exceeding customer expectations (Sirvanci, 1996). Bergquist (1995) listed four sets of criteria by which quality could be defined and assessed to increase customer satisfaction. These criteria are input, output, value-added and process-oriented criteria

The input criteria focus on the nature and level of resources available to the institution like the characteristics of incoming students, credentials of faculty, size of library, structure and availability of physical facilities, and the amount of financial reserves. For many years, the input criteria have been the most commonly identified measures of quality. Many accrediting agencies have used input measures to measure quality like the quality of entering students, number of books in the library, quality of graduate degrees held by faculty, number of square feet of classroom space, student-faculty ratio, and others. Many people believe that if you put good things together, something good will come out of it. This concept of education is often associated with traditional high-status institutions.

The output criteria stress the nature and extent of institutional products, characteristics of graduating students, success of alumni, research and scholarly publications, and public service. They build on the assumption that institutions of higher education are accountable to society for what they produce. In recent times, the reputation and quality of educational institutions are increasingly being determined on the basis of their demonstrated outcomes.

The value-added criteria zeroes in on the differences that an institution has made in the growth of all of its members: intellectual, moral, social, vocational, physical, and spiritual. Considering these criteria, an institution would be judged by the extent to which it is effective in developing the talents of its students, from whatever level they are at when entering.

The process oriented criteria includes the level and manner of participation of all appropriate constituencies (customers/stakeholders) in the educational, administrative, and governance processes of the institution, including the defining and assessing of quality. Based on these criteria, "it is not what we do or what we accomplish that makes for quality; rather it is the way in which we do what we do, and how we decide what to do, that differentiate a high-quality education".

There is no single, all-encompassing definition of quality that meets the needs of all customers in higher education. Quality therefore should not be considered as a unitary concept but a multiple one. Green suggested that the best that can be achieved is to define as clearly as possible the criteria that each stakeholder uses when judging quality, and for these competing views to be taken into account when assessments of quality are undertaken. (Green,1994).

In discussing the role of service quality in higher education, Shank et al. (1995) note that: Higher education possesses the characteristics of a service industry. Educational services are intangible, heterogeneous, inseparable from the person delivering it, variable, perishable, and the customer (student) participates in the process. Additionally, colleges and universities are increasingly finding themselves in an environment that is conducive to understanding the role and importance of service quality; this environment is a fiercely competitive one. Within this context, the educational literature suggests how imperative it is for educational institutions to actively monitor the quality of the services they offer and to commit to continuous improvements in order

to survive the increasingly fierce competition for highly desirable students and the revenue they generate. In what has become a highly competitive environment, students have become more discriminating in their selection and more demanding of the colleges and universities they choose. It is important then for institutions to understand what incoming students desire (and increasingly expect) from the institution of their choice. Unfortunately for many institutions, competition for enrollment of an increasingly diverse, yet academically qualified student body has increased alongside the rise in awareness of these students about the programs and services offered at most universities. As a result, the issue of retention of these students has become an area of critical concern for most colleges and universities.

#### **2.4 Employee Involvement and Performance of Institutions of Higher Learning**

Employee involvement is defined as the extent to which employees have a sense of control over their work. Employee involvement is signaled by job competence and job autonomy and is closely associated with perceptions of service quality and job satisfaction (Lawler, 1994). Employee involvement is another theme of TQM which aims to involve all organizational members in corporate affairs for creative problem solving and continuous improvement (Belbin, 1993). Gregory (1996) believed that universities have usually provided a fairly high degree of participation in management for their academic staff, although support staff have usually been far less involved. Gregory (1996) proposed a model for total quality leadership in education in which the main elements were quality philosophy, quality planning, quality leadership, and quality improvement. Quality philosophy was defined as knowing the customers' needs and outlining the core of educational services. Human relation factors regarding students and staff were emphasized in the leadership element in which an open, critical, and caring attitude towards the needs of students was advised. According to Stensaasen (1995), the main task of a leader is to help people to do a better job. In educational institutions, he believes, the role of teacher would be better considered as that of a leader than of an instructor.

According to Novak (2002), leadership alone is not sufficient, but it needs to be complemented by teams involved in the outcomes. "An ancillary benefit of teams is that they create an identity for individuals and therefore have the opportunity to mould a solid and cohesive culture which generates and perpetuates the workplace norms and ethics." Novak (2002) continued to state that

team working is not common in higher education, and he proposed not to ignore the traditional role of individualism, especially in research activities, as it “is often perceived as the key to personal recognition and advancement within the system”. Although higher education is able to adopt many of the principles of TQM, it is reasonable to expect some problems when applying them to a different organizational structure to that of the commercial environment.

According to Hansen (1993), TQM’s emphasis on customer satisfaction may cause some conflicts with those professionals in education “who have traditionally seen themselves as the guardians of quality and standard”.

Lawler (1994) believed that the motivation of individuals in education is often based on a desire to be the best possible scholars rather than on a cost trade-off view and so “analogies in the quality literature which describe a Rolls-Royce and a Mini as cars of potentially equal quality dependent on the customer’s perception have little meaning”.

Wilkinson et al. (1992) claim that the ‘hard’ and ‘soft’ aspects in TQM programmes are interdependent elements. Similarly, this is supported by Rees (1995) who identified valid linkages between them. The hard aspect is referred to as generally quantifiable quality tools and techniques, such as total quality control, just-in-time production, six-sigma and zero defect performance measurement, and task-based team working. Meanwhile, the soft or more qualitative aspect of a TQM programme consists of the use of HRM policies and activities to generate employee commitment to quality, and the dissemination of management vision and ideology that may reinforce the maxims of quality working culture, attitudinal change, continuous improvement, and customer orientation.

As the origin of quality management lies within the operation and production fields, manufacturing firms may tend to place emphasis on the hard and quantifiable measurement aspects. In contrast, service-oriented organizations including higher education institutions, which have a greater degree of employee-customer interactions, should concentrate on the more qualitative and softer aspects of working culture, customer care and personal interactions. However, the managerial approach towards various aspects of ‘soft’ issues in quality

management must continue to search for more quantifiable measurement of performance outcomes. On the other hand, while modern management allows greater employee discretion, autonomy and empowerment as the benefits of a TQM programme, closer monitoring and tighter management control are still needed to go hand-in-hand.

Miller and Cardy (2000) suggest that HRM need to respond in a creative way to TQM and reengineering in organizational changes. The research constructs used are staffing, training, performance appraisal, mentoring, compensation, and social support. Furthermore, Dale and Cooper (1993) highlight the importance of concern for people issues in TQM. The HR activities that they relate to quality improvement processes are the role of the senior managers, motivating middle managers, training and education, team building, employee involvement at work, and handling people resistance in quality change management.

Employee involvement is a process for empowering employees to participate in managerial decision-making and improvement activities appropriate to their levels in the organization. Since McGregor's Theory Y first brought to managers the idea of a participative management style, employee involvement has taken many forms, including the job design approaches and special activities such as quality of work life (QWL) programs. There is at the end of the day only one thing that differentiates one company from another; its people. Not the product, not service establishments, not the process, not secret ingredients; ultimately any of these can be duplicated. The Japanese have always recognized this and it is one of the reasons for their success in world markets, they place tremendous value on the integration of people with organizational objectives, equipment and processes.

According to Lawler, "Employee Involvement", if well implemented, changes the fundamental relationship between individuals and the organization they work for". "It really builds employees in as a business partner, so they know more and they do more to make the organizations successful, particularly in industries where the human component is important; most knowledge work, high-tech and many kinds of service industries.

According to Drucker (1989), employee engagement can increase the understanding of organizational policies. It involves processes such as lower levels of decision making, adopt the experience, knowledge and the ideas for the advancement of the organization. Employees shall be given due recognition for their contributions and their ideas. It is a psychological process to develop confidence between the members of the organization and encourage them to make decisions and solve problems with each other.

Hunt (1992) maintained that job involvement could be produced in the outer and inner self. Internal involvement is influenced by its own commitment. It involves defining the duties of employees entrusted with any evaluated behaviour shown by the employee. Involvement also enables management, employees share the resulting performance, and member understanding of the employees will work goals. It is important because without employee engagement, an organization cannot function properly. It is able to provide satisfaction, especially on the quality of working life and increase employee commitment to continuous quality improvement process.

Increased involvement means more responsibility, which in turn requires a greater level of skill. This must be achieved through training. For example, Baldrige Award winners place a great deal of emphasis on training and support it with appropriate provision of resources. Motorola allocates 2.5 % of payroll costs or \$120 million annually to training, 40% of which goes to quality training. Training is an important factor that helps in making efforts toward quality improvement. Quality training includes educating and training all employees, help employees to increase knowledge, provide information about the mission, vision, direction and organization structure to enable them to gain skills in an effort to improve the quality and thus solve the problem.

All employees must work together to produce a quality product or service that meets customer requirements. This cooperative effort should be evident throughout the product's or service's life cycle, from initial design to final delivery. The success of the school depends increasingly on the skills and motivation of its work force. Employee success depends increasingly on the availability of opportunities to learn and practice new skills. These skills can be developed through investment in education, training, and other continuing growth opportunities.

According to Johnston (1995), an organization that demands quality and staff development, policy formulation and planning will determine the allocation sampler for the training, and strategic planning is not only focused on training needs now, but also training in the future. Strategic planning will result in a strategic training plan, and it can be used to predict the future training needs based on employee needs and demands of consumers.

Johnston (1995) also pointed out that continuous training is not a specialized activity, but the way people behave with the knowledge that all employees ultimately have. He also describes that the quality of work could indirectly increase their involvement in the organization. Thus, training can be a tool for achieving quality.

According to Sangeeta et al. (2004), barriers to applying TQM in higher education are related to the highly generic and idealistic mission of the institutions, the lack of agreement on the meaning or implications of quality, and the academic freedom and tenure which have resulted in an administration having relatively limited control over key personnel. The difficulty resulting from the freedom, Sangeeta et al. (2004) stated, is that most academic staff “do not view their work as contributing directly either to their institution’s output or to the satisfaction of the institution’s customers, however customers are defined”. Seymour (1992) believes that the problem arising from this type of autonomy is that organizations operate like a random collection of elements driving off in different directions with no unifying purpose.

Effective involvement of staff in decision making leads to ownership of the management decisions and creates conducive environment for the effective teaching and learning. Olayo (2005), found that low level of participation in decision making among staff in selected universities in Kenya reduced employee work performance with regard to efficiency and effectiveness. Thus, ineffective involvement of staff in decision making was interpreted as impacting negatively on quality of services offered by the lecturers in both private and public universities.

## **2.5 Student Involvement and Performance of Institutions of Higher Learning**

Olayo (2005), found that low level of participation in decision making among staff in selected universities in Kenya reduced employee work performance with regard to efficiency and effectiveness. Thus, ineffective involvement of staff in decision making was interpreted as impacting negatively on quality of services offered by the lecturers in both private and public universities. Similarly, students' involvement in decision making is significantly different between private and public universities. It was interpreted that students' involvement in decision making was better in private universities compared to public universities. This explained why there were riots in public universities compared to private universities.

According to K'Okul (2010), the riots were attributed mainly to misunderstanding between the students and the university authority and poor management followed by inadequate learning facilities and ineffective guidance and counselling services. Maina (2011) found that colleges that keep students informed of the challenges that they face in providing services, candidly explaining any setbacks and how these are handled gives students an opportunity to experience management in action. This exposes students to failure and risk management thereby building career resilience. Providing opportunities for students to manage their own affairs within the constraints of available resources offers useful experiences for personal development and self discovery. Opportunities to organize events, participate in student leadership etc, whether successfully or otherwise, builds resilience, autonomy, confidence and enhances independence and effectuation behaviour (the pre-disposition to construct outcomes from whatever means that are available). It was thus interpreted that inadequate involvement of staff and students in decision making impacted negatively on quality of teaching and learning in public universities and to some extent in private universities.

According to Standa (2007), quality management involves effective management with relevant stakeholders in order to gain their confidence. Secondly, it involves the existence of any policies or procedures for assessing overall student performance. Lack of effective communication with stakeholders was a hindrance to effective implementation of future plans and projects. This impacted negatively on provision of quality of services which depend on adoption of management decisions by the stakeholders.

Faculty – student interaction has been shown to have a strong influence on both the intellectual and the personal outcomes. Studies by Baird (1992), Pike (1991), and Terenzini and Pascarella (1980) all found that involvement with the faculty made a strong contribution to intellectual growth outcomes. Endo and Harpel (1982) and Terenzini and Wright (1987) examined both formal and informal faculty – student interactions. Informal interaction was defined as the product of a more friendly relationship between faculty and students wherein faculty exhibited a personal and broad concern for students’ emotional and cognitive growth. While both types of interaction had positive outcomes, interaction which was characterized as informal had greater impact. Pascarella (1985) found that just knowing a professor or administrator personally had a significant influence on a student’s academic self- concept.

## **2.6 Theoretical Literature Review**

In recent years the subject of managing for quality has gained prominence in literature and in a growing number of manufacturing and service organizations. Quality has become a very powerful tool in international competition. Organizations as well as societies have come to realize that the pursuit of quality provides a safeguard against anything that threatens human health and safety, even the environment. Higher education in many developing countries is no longer a luxury but an essential for survival.

According to the reports of UNESCO and the World Bank, social and private returns of higher education are less than those of primary and secondary education. It is estimated that social return of primary education is 25% while that of higher education is only 1%. This has led to the thinking that the returns of higher education are largely personal/private and therefore, subsidy on this should be reduced. Education policy-makers in developing countries continue to express concern about the poor state of higher education. Given the historical development of higher education institutions in Africa, the universities have been at the centre of higher education challenges (Rosa 2007).

However, it is important to note that African universities play a more significant role in national development than they do in other parts of the world, as they are often the only institutions with

some capacity to undertake research and to generate the knowledge required for development. This is supported in the study of Bloom et al. (2006), which demonstrated that higher education in developing countries can play a key role in accelerating the rate of growth towards a country's developmental potential. For many years, most universities globally have been, to a significant extent, self-organising institutions. They 'have sought to count rank and ritual as equal to cash reward' (Marginson *et al*, 2000). The universities in many advanced countries are now in a process of reinvention and according to Marginson *et al* (2000) are becoming more daring and more fraught and the institutional transformations more dramatic. Two of the paths being followed by universities including those in Australia and Europe (Mora *et al.*, 2010) are to increase their partnerships with business and to have strong executive control. Mora et al. (2010) recently found that European universities are becoming more active in developing relationships with business. Driving these changes is a redefined internal economy and at times by commercial and entrepreneurial spirit. These are the so-called enterprise universities or what others call 'academic capitalism', 'entrepreneurial universities' or 'corporate universities'. Enterprise is about advancing the institution's prestige and competitiveness as well as about income. There has been a lot of debate regarding the merits and demerits of these changes and there are serious deficiencies in these norms and models. In this respect, African universities have not been left very far behind as they have undergone a major transition in the past decade and have moved from public to a greater emphasis on more private funding and have reinvented themselves as business enterprises.

Higher education in Kenya has been facing significant and persistent pressures towards expansion in recent years and this trend has led to significant economic and academic challenges for both higher education institutions and the government. Education stakeholders are constantly questioning the value of the products the higher education institutions in Kenya are presenting to the market and why foreign universities still remain attractive. The same issues could be identified in other African states (Rosa 2007)

Changes brought about by the transition to a knowledge economy have created a demand for higher skill levels in most occupations in Africa. As such, 'countries wishing to move towards the knowledge economy are challenged to undertake reforms to raise the quality of education and

training through changes in content and pedagogy' (Materu, 2007). Higher education in Africa is critical to achieving this because the sector educates people in a range of disciplines and supports other levels of education. Therefore, the challenge for Africa, and Kenya in particular in an attempt to create this knowledge economy, is to improve the quality of its higher education. Quality assurance could play a key role in initiating this.

In many developing countries, university education has moved from élite to mass education within a very short time and Kenya's development is not isolated. In Hong Kong, for example, universities were visualised as centres of excellence catering for the privileged upper class but there has been a transition from élite to mass higher education within the last five years (Kember, 2010). Higher education has also expanded rapidly in many Asian countries such as South Korea, Taiwan (Hayhoe, 1995) and China (Mok, 2009). Gross enrolment in Latin America has risen from 1.6% in the 1960s to 29% in 2002 (Guadilla, 2000). In China, it has climbed from barely 2% in 1990 to 16% in 2005 and in Vietnam from 190,000 student numbers in 1991 to nearly 1 million in 2002 (Kapur *et al*, 2008). University education in Kenya has expanded dramatically since the mid-1980s. At independence from British colonial rule in 1963, Kenya did not have a fully fledged university (Oketch, 2009). University College, Nairobi, was a constituent of the University of East Africa with other campuses at Makerere (Uganda) and Dar-es-Salaam (Tanzania). As recently as 1984, only one degree-granting university existed in Kenya.

The environment under which universities are operating in Kenya has undergone remarkable changes during the last decade. The universities have been increasingly subjected to a variety of demographic, social, economic and technological changes, which obviously require a new direction of leadership. Despite the changed circumstances for the universities, they have continued to increase enrolments. Immediately after independence in 1963, university education in Kenya began with just 571 students enrolled in Nairobi University College (Weidman, 1995). From the 1980s, enrolment in public universities increased greatly from 2500 in 1982–83 to 20,837 in the 1990–91 academic years and over 40,000 in 1996 up to about 56,000 currently. This figure does not reflect the total number especially those enrolled under the so-called 'parallel degree programmes.' Between 1985 and 2002 alone, the number of higher education students in Kenya increased by 27% (Materu, 2007). In the East and Central African region,

Kenya's higher education system is expanding and currently has the highest number of institutions and students. Unfortunately, this rapid growth has not been matched by increased funding.

### **2.6.1 Deming Theory**

According to Hughey (2000), the challenges that lie ahead for higher education are enormous. Therefore it is absolutely essential that higher education professionals are adequately prepared to confront those challenges. One of the key ways in which they can better prepare themselves to survive the coming social, political and economic turbulence is to study Deming's '14 points' and understand how they apply to the collegiate environment. These have been discussed below.

Create constancy of purpose: Everyone involved in the delivery of programmes and services to the campus population must understand and accept the fundamental importance of providing exceptional customer service at every available opportunity. If acquiring a college education truly gives significant advantages to the recipient, then those benefits should be obvious and desirable. Students should attend college because it provides something that will help them succeed personally, socially, and vocationally. Yet this potential can be fully realized only if everyone in higher education shares the same vision and is pulling in the same direction. In other words, everyone involved in the educational process must be in total agreement regarding institutional mission, allocation of resources, how priorities will be established, and how goals and objectives will be accomplished.

Adopt a new philosophy: in short, what was acceptable as 'standard procedure' in the not-too-distant past is now no longer appropriate. When college was seen as the only viable route for getting ahead, the need to be sensitive and responsive to individual desires, concerns, complaints, and recommendations was not very acute. At most institutions, the decision-making process was driven solely by enrolments. If students wanted to acquire the knowledge and skills deemed essential for success, attending college was really the only option. Students were taken seriously only when it was convenient and/or unavoidable. But now times have changed. In a very real sense, colleges and universities are much more dependent on students than students are dependent on them. Customer satisfaction is no longer an abstract philosophical construct, it is

potentially the most important consideration in virtually every decision. The very survival of higher education depends on its ability to make this fundamental change.

Cease dependence on inspection: stated another way, colleges and universities must become much more proactive in their approach to the provision of programmes and services. Higher education professionals have a well-deserved reputation for being primarily reactive in how they respond to issues that affect the on-campus population. Instead of taking the lead when problematic situations arise, they have often had to be coerced into some form of corrective action. When something 'bad' has happened, the typical response by many collegiate leaders has been to try to minimize the potential damage. In the business world, by contrast, the current emphasis is on taking steps to prevent 'bad' things from happening in the first place. Instead of simply responding to changing realities, higher education professionals must assume a more dynamic role in determining what those realities will be at some future point and then developing programmes and services designed to meet the challenges they represent.

Minimize total cost: while money is certainly a key ingredient for the development and maintenance of a quality educational system, it is naive to assume that quality is directly proportional to the number of dollars spent. A tell-tale characteristic of the reactionary mode of thinking involves the 'band-aid' approach to dealing with problems and other difficult situations. In an attempt to deal with the perceived short-term consequences of a given situation, institutions typically spend three times the time, money, and effort needed to solve the problem - ie to take the steps necessary to resolve the problem completely and thus prevent it from occurring again. Higher education professionals need to concentrate more on the long-term future of their programmes as opposed to expending inordinate amounts of time and resources dealing with relatively trivial matters.

Improve constantly and forever: in today's market, it is never advisable to reach the conclusion that a particular institution is 'good enough'. Continuous improvement must be a top priority on all fronts, from the blackboard to the balance sheet. The only way to remain responsive to the needs of a diverse and dynamic student population is to strive constantly to provide better services without comparable increases in cost. Higher education professionals must stay in touch with the students they serve. They must monitor student needs continually and offer programmes

and services that meet those needs both now and in the future. The over-riding goal of continual improvement must dominate every discussion and permeate every agenda. Nothing should be undertaken in the academic arena that does not add value to the overall enterprise.

**Institute training:** Training is the key to the successful implementation of TQM within the academic environment. Training faculty and staff can be a very complicated, involved and even frustrating process. But if done correctly, it can also be one of the most rewarding dimensions of work in higher education. Sound training forms the basis for a successful college or university. Whereas many institutions do an exceptional job when it comes to the provision of training experiences, others simply do not devote the time and effort needed to ensure that the concepts are given the attention they deserve. Far too often, training consists of (a) dispensing technical information, and (b) reacting to situations as they develop. To be truly effective, training must transcend these somewhat narrow parameters to include the decision-making and problem-solving skills necessary to facilitate customer satisfaction.

**Institute supervision:** Once faculty and staff have received training in the basics of TQM, it is imperative that upper-tier administrators constantly reinforce their commitment to enhanced quality through every aspect of their management style. Most experts agree that, in the future, organizational hierarchies will be much more horizontal than is currently the case at many colleges and universities. In short, there will be far fewer levels between upper administration and students. One logical result of this collapsing of the structure will be the empowerment of those at the lowest levels, i.e. those closest to the students. Such an arrangement necessarily mandates a management strategy foreign to many higher education professionals. Supervising empowered employees is substantially different from dictating what is to be done centrally. Supervision of personnel within the context of TQM is quite distinct from supervision of task facilitation within a more traditional context.

**Drive out fear:** No one can focus on doing the best job possible if he or she lives in constant fear of the consequences of perceived failure (such as being reprimanded or fired). Many higher education professionals, in the guise of enhancing accountability, have instituted a comprehensive and endless array of evaluations: self evaluations, student evaluations, peer evaluations, supervisor evaluations, etc. This is further evidenced by the recent interest in

implementing post-tenure reviews at many institutions. The intended outcome of these assessments may indeed be to foster and maintain higher standards of commitment and quality. Yet the message that is often received by faculty and staff is one of implicit mistrust and intimidation. Good supervisors must learn to rely minimally on formalized evaluation schemes as a means of motivating staff and thus ensuring that departmental goals and objectives are appropriately met.

Break down barriers between departments: TQM requires a system-wide effort on the part of all departments. Higher education professionals who are obsessively preoccupied with who reports to whom, following the appropriate channels, and other issues related to turf protection, often do considerable harm to the institution by keeping the focus from where it should be - on the delivery of quality programmes and services. Being as responsive as possible to the needs of students should be the only real concern. Ideas for improvement should always be welcome, where they originate from should be relatively inconsequential. Getting the job done efficiently in a humanistic manner, regardless of how the departmental lines appear on an organizational chart, is all that really matters.

Eliminate unrealistic targets: Although it sounds good to proclaim that '100% student satisfaction is our goal', in reality this is impossible to achieve. For instance, holding faculty responsible for the fact that not all of their students feel they are doing an acceptable job is unfair and unrealistic. Recognition should be given for effort, not just results. If higher education professionals establish goals and objectives that are inherently unattainable, they are not, as they might think, motivating their staff members to be 'all they can be'. Moreover, establishing recruitment or development goals that are unrealistic serves only to dampen morale and thus needlessly impede performance. In the long run, this leads to high frustration and accelerates bum-out.

Eliminate numerical quotas: An academic programme can be highly successful even though it enrolls only relatively few students. The mere facts that the programme is available, and that a great deal of effort has gone into its design and construction, account for a lot more than is often realized. Similarly, if recognition is given only to those who are successful in recruiting high numbers of students (or processing high numbers of forms), then an adversarial atmosphere in

the workplace is often created. Holding individuals with different abilities to the same performance standards is inherently counter-productive. Faculty and staff should be rewarded for performing at their own individual level of proficiency.

Abolish management by objectives: On the surface, management by objectives (MBOs) seems like a good approach. MBOs can be helpful in establishing priorities and clarifying the various job functions that must be performed. But in the era of TQM and its emphasis on continual improvement, MBOs are self-defeating in that they severely limit creativity by inhibiting employees from proceeding beyond the relatively narrow parameters they prescribe. Higher education professionals must be extremely flexible in order to respond effectively to each student's individual needs. MBOs, by their very nature, limit this flexibility and tend to precipitate meaningless, repetitious conformity.

Institute a vigorous programme of re-education: Achieving the goals and objectives of TQM will require extensive re-orientation of the culture in higher education. Many of Deming's ideas are rather easy to comprehend yet moderately difficult to put into practice. Changing the way people think can be an extremely daunting task, as the proponents of multiculturalism are currently finding out. TQM requires an unwavering dedication to the central concept of complete and consistent customer satisfaction which can only be achieved through empowerment of all organizational members. Such commitment implicitly denotes a fundamental shift in the way many higher education professionals view their role as proponents of student learning and development.

The transformation is everybody's job: Instituting the Deming philosophy is not just the responsibility of the upper administration at a college or university, nor is it the primary concern of any one group within the organization. It must be seen as everyone's responsibility. A chief tenet of TQM involves getting the decision-making authority as close to the customer (the student), as possible. This means that everyone at the institution must have a clear understanding of the overall goals and objectives of TQM, as well as how those goals and objectives translate into concrete action. In order to make this connection, it is imperative that everyone works toward the same end. TQM requires the full support of everyone within the organization; it will

be a disappointing failure if it is only the dream of one or two people who have read a little about it and decided to 'give TQM a try'.

Just like their counterparts in business and industry, higher education professionals stand to benefit substantially from the adoption of Deming's ideas. TQM is almost universally recognized as one of the most significant managerial innovations of the last 50 years. Yet it remains a hazy concept to most collegiate faculty and staff. Higher education advocates would no doubt be hard pressed to disagree with the assertion that achieving and maintaining the highest quality standards possible is of paramount importance. The problem is that without more specific direction and elaboration, such statements are essentially meaningless. They add to the confusion rather than help alleviate it.

Attempts to implement the quality management philosophy in the educational setting have met some resistance especially from academic areas. Many of those involved in higher education believe that quality is already being practiced. However, there are a number of factors in the educational scene which challenge this assumption. First, quality as it is traditionally defined in higher education is being challenged by many outside academia. Many colleges and universities still hold the historic view that they are the preservers, transmitters, and generators of knowledge. This view, however, conflicts with what the general public expects of their graduates with regards to the job-related value of higher education. Seymour commented that in the United States, “the disconnect is real between what our colleges and universities produce in terms of learning and outcomes in their graduates and what industry requires (Seymour 1992). “We are buying instruction and service and higher education is selling research (Lewis et al, 1994). This is the same situation that exists in Kenyan institutions of higher learning.

Second, changing economic conditions have caused concern among the general public about career opportunities and economic well-being. John Akers, former chairman of IBM once stated, “Education isn’t just a social concern, it’s a major economic issue. If our students can’t compete today, how will our companies tomorrow?” (Schargel,1993). There is real public concern about access to higher education as a means toward employment and economic security. In the past

decades tuition and other costs associated with higher education have increased substantially except in those countries where education is heavily subsidized by the government.

Third, students, parents, legislators, employers, and other stakeholders are bringing a customer orientation to their assessment of higher education. They “expect of higher education what they demand elsewhere: better service, lower costs, higher quality, and a mix of products that satisfy their own sense of what a good education ought to be”. (Zemsky et al,1993). The customer orientation has helped to facilitate the outcomes assessment movement in higher education.

Fourth, perception of quality in higher education has diminished. Many groups inside and outside of academia believe that this loss of confidence is partly due to the tendency of colleges and universities to protect their own disciplines and culture without sufficient regard to the requirements and expectations of their stakeholders. Chaffee and Sherr described this environment as follows: (Chaffee et al, 1993): Every [U.S.] college and university is for quality. Every accreditation self-study documents quality. Every set of admission requirements promotes it. Every faculty member grades for it. Every promotion and tenure committee screens for it. Everyone is for quality. Yet the last decade has brought unprecedented public demand for higher quality in colleges and universities. External agencies and the public have lost confidence: We might be “for” quality, but in many eyes we do not “do” quality.

Lastly, higher educational institutions are beginning to realize that they are operating in an era characterized by increasing complexity, novelty, uncertainty, and advances in technology never previously imagined and experienced. These forces have helped to increase the gap between the quality desired by people and the quality of products and services being delivered. Technology enabled stakeholders to compare the quality of other educational systems with their own, subsequently causing the “quality desired” curve to rise at an accelerating pace.

TQM has been adopted as a management paradigm by many organizations worldwide. Quality movement across the world started with quality improvement projects at manufacturing companies. But later it spread to other service institutions including banking, insurance, and non-

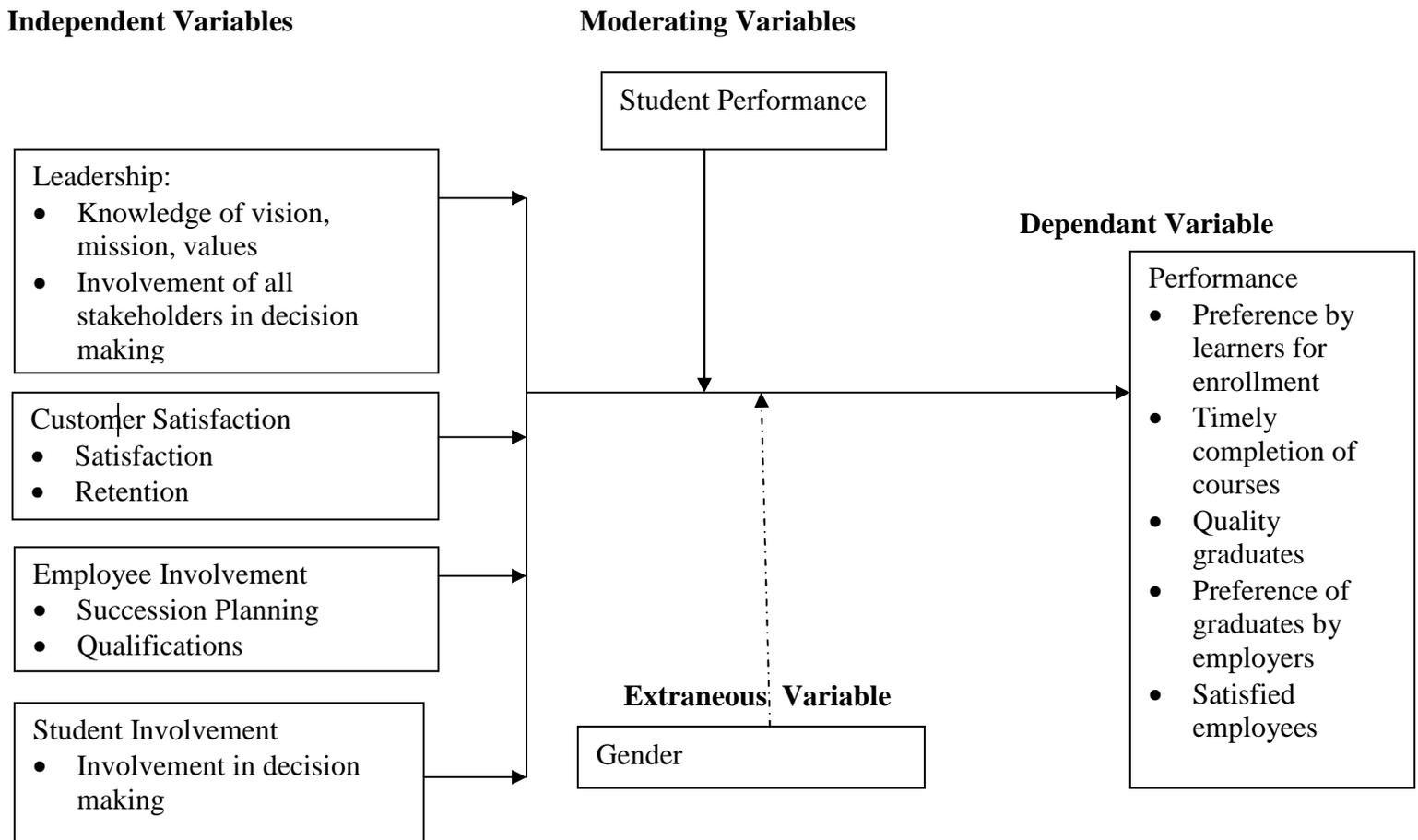
profit organizations, healthcare, government and educational institutions. Awards like Deming in Japan, Malcolm Baldrige in USA, European Quality awards, etc are a reflection of the growing concern in this area.

Although higher education is able to adopt many of the principles of QM, it is reasonable to expect some problems when applying them to a different organizational structure to that of the commercial environment. The concern is that there will be a direct relationship between the conception of higher education being taken, the definition of quality being used and the performance indicators chosen to measure quality (Tam, 2001).

## 2.4 A Conceptual Framework Analysis Model

In this study, the independent variables were leadership, customer satisfaction, employee involvement and student involvement. The moderating variable is student performance which incorporates faculty- student interaction, social integration, and value of course in the job market. The extraneous variable is gender which could be affected by health of employees and student absenteeism. This may or may not affect the relationship between the dependant and independent variables. The dependant variable is Performance of Institutions of Higher Learning, as depicted in the Fig. 1

Figure 1 is a conceptual framework analysis model providing the relationship of variables as would be used in the study



**Fig 1: Conceptual Framework**

## **2.5 Gaps In Literature Review**

Higher education has experienced rapid growth in the last two decades and this has led to commercial competition imposed by economic forces being experienced in this sub-sector. More and more institutions of higher learning are being set up and it is only those that provide quality education that are going to survive. This therefore necessitates a study to be conducted in order to examine factors that are crucial in ensuring not only survival but growth in these institutions.

Though a number of studies have been done on the concept and context of quality management and higher education respectively, the researcher has not come across any that has been done in the context of institutions of higher learning, as a case of the Institute of Advanced Technology. To fill these gaps, this study seeks to establish the extent of the influence of total quality management principles on performance of institutions of higher learning, with a focus on IAT and its branches.

## **2.6 Summary of Literature Review**

This chapter reviewed various studies and journals relevant to the area of the study. It also outlined the background information, theoretical framework, analyzed research findings for justification of this study and outlined the conceptual framework. It discussed what efforts have been made to improve Leadership, Customer Satisfaction, Employee involvement and Student Involvement so as ensure Total Quality Management in institutions of higher learning. From the numerous studies and journals reviewed in this chapter, much effort has been made to improve Leadership, Customer Satisfaction, Student Involvement and Employee involvement in decision making to achieve total quality management in the institution of higher learning. Many institutions of higher learning including Institute of Advanced Technology have come up with various strategies like acquiring ISO 9000 certification and accreditation. The major variables such as customer satisfaction, leadership, student involvement and employee involvement have been identified as key to achieve Total Quality Management.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter details the approach that was used by the researcher for data collection and analysis; research design, target population, sampling procedure, operational definition of variables, data collection methods, data collection instruments, reliability of collection instruments and data analysis techniques.

### 3.2 Research Design

A descriptive design was modeled to collect respondent views through a cross-sectional survey. The Survey was designed to collect detailed information relating to the representative groups. Kothari (2003) recommends descriptive design as it allows the researcher to describe, record, analyze and report conditions that exist or existed. This survey design was considered to be particularly well suited to researchers who study the individual as a unit of analysis as an excellent vehicle in measuring for generalization. The purpose of this study justified the use of the survey.

### 3.3 Target Population

In this research, the respondents were the senior management, lecturers, front office staff and students of IAT. The study included a sample obtained from these students and staff in the various branches. The study targeted a population of 1350.

**Table 3.1: Target Population**

<b><u>Branch</u></b>	<b><u>Student population</u></b>	<b><u>Staff population</u></b>	<b><u>Total Population</u></b>	<b><u>Percentage (%)</u></b>
Kasarani	200	40	240	18
School of Business	150	30	180	13
Loita	500	60	560	42
Westlands	350	20	370	27
<b>Total</b>	<b>1200</b>	<b>150</b>	<b>1350</b>	<b>100</b>

Source: (IAT Records, 2014)

### 3.4 Sample Size and Sampling Procedure

Sampling is the process of obtaining information about the entire population by examining only part of it (Kothari 2003). Sampling is the preferred method of selecting the representative sample for the research. The reason for the preference was that, due to time and resource constraint only a sample will be deemed to be adequate enough to represent the entire population of IAT. The study targeted a population of 1350 and a sample size of 270 respondents which is considered representative since it is higher than 10% of accessible population (Mugenda and Mugenda 1999). The sample size will include 30 staff members and 240 students as indicated in table 3.2

Stratified sampling will be employed to determine the individuals to be questioned. This method was appropriate since the sample was selected from different branches and the staff being surveyed was in different cadres. The researcher obtained a list of all employees in the different cadres and gave them numbers, the numbers were placed in a container and the researcher picked numbers at random. The students were grouped according to their classes and the number of students in each class identified. The classes were then picked randomly and students in these classes were the respondents.

**Table 3.2: Sample design table**

<b><u>Branch</u></b>	<b><u>Student population</u></b>	<b><u>Sample size</u></b>	<b><u>Percentage (%)</u></b>	<b><u>Staff population</u></b>	<b><u>Sample size</u></b>	<b><u>Percentage (%)</u></b>
Kasarani	200	40	17	40	8	27
School of Business	150	30	12	30	6	20
Loita	500	100	42	60	12	40
Westlands	350	70	29	20	4	13
<b>Total</b>	<b>1200</b>	<b>240</b>	<b>100</b>	<b>150</b>	<b>30</b>	<b>100</b>

Source: (IAT Records, 2014)

### 3.5 Data Collection Instruments

Questionnaires were used to collect data from respondents. They were administered through drop and pick method to the units of analysis who were the senior management, lecturers, front office staff and students of IAT. The questionnaires were self-administered requiring respondents to provide relevant answers to the questions to avoid bias. This method collected primary data.

Individual consent was sought before administration of the survey instruments to avoid coercing respondents into giving information not worth revealing in terms of security or personal reasons. The researcher assured anonymity and confidentiality to all respondents. For purposes of mutual trust, a letter of introduction to carry out the research was attached to the questionnaire indicating the researcher's intention.

### **3.5.1 Pilot Test**

Pilot-testing is an important step in the research process because it reveals vague questions and unclear instructions (Nachmias et al, 1996). The data collection assistants administered 10 questionnaires and the interview guides to the staff in Kasarani Campus a couple of days before the study initiation. It is important to note that the data collected was used for testing the data collection tool and not for the purpose of the study. The data collected was analyzed and interpreted. After completion of the pilot testing all the data collection tools were reviewed and suitable corrections and adjustments made to ensure the tool was fit for collection of objective data.

### **3.6 Validity of Research Instruments**

Validity is the degree by which the sample of test items represents the content the test is designed to measure. Content validity a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept was employed by this study. The researcher sought expert opinion from the lecturers in the department of project planning and management on the representation and suitability of questions and suggestions for corrections on the structure of the research tools was given. This helped to improve the content validity of the data collected. It also facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

### **3.7 Reliability of Research Instruments**

Cronbach's alpha test was used to check the reliability of the instrument; it is based on internal consistency of the research instruments. Cronbach's Alpha was established for all the themes in the questionnaire, which formed a scale in order to test the reliability of the questionnaires.

Test-retest reliability assesses the degree to which test scores are consistent from one test administration to the next.

## RELIABILITY ANALYSIS - SCALE (ALPHA)

### Reliability Coefficients

N of Cases = 270                      N of Items = 4

Alpha = .849

This illustrates that the scales measuring the objectives met the reliability criteria as the alpha value for each scale exceeded the prescribed threshold, ( $\alpha > 0.7$ ) with the average reliability for all the constructs being ( $\alpha = 0.849$ ). This shows that the research instrument (questionnaire) was sufficiently reliable and needed no amendment.

### **3.8 Data Analysis Techniques**

The Statistical Package SPSS version 20 was used in the analysis. After data collection, the data was organized and edited to remove any inconsistencies, repetitions or errors that made analysis difficult. The cleaned data collected was analysed using both quantitative and qualitative methods. Frequency tables were used to present the data collected for ease of understanding and analysis. Karl Pearson's Product Moment correlation was conducted to determine the relationship between the independent variables: Leadership, Customer Satisfaction, Employee Involvement and Student Involvement against the dependent variable of Organization performance. Qualitative data are based on meaning expressed through words. It involves the collection of non-standardized data that require classification and are analysed through use of conceptualization. Content analysis was used to analyse the qualitative data and the findings have been presented in prose form.

### **3.9 Ethical Considerations**

Throughout the study there was adherence to the rules of collecting and analyzing data. Confidentiality of the information was upheld at all stages of the study. The research is based on factual truth. The principal of "least harm" and anonymity was given the highest priority. The principle of informed consent was applied. Permission was sought from relevant authorities and a letter obtained to allow the researcher to carry out the research. Furthermore, the researcher explained the purpose of the study to the respondents and assured them of confidentiality of their responses and identities.

### 3.10 Operational Definition of Variables

According to Mugenda and Mugenda (1999), operational definition refers to the measurement of a variable. It is the description of the operation that will be used in measuring the variable. Table 3.3 summarizes operational definition of variables in this study.

**Table 3.3 Operational definition of variables**

Research Objective	Variable Type	Indicator	Measurement Scale	Data Collection Methods	Tools of Analysis	Data Analysis
To assess the extent to which leadership affects the implementation of TQM at IAT	Independent: Leadership. Dependent: Performance of IAT	Knowledge of vision, mission, values Involvement of all stakeholders in decision making	Ordinal	Questionnaire & Interviews	Correlation	Descriptive Analysis Mean, Percentage, Standard Deviation
To establish the extent to which customer satisfaction influences TQM implementation at IAT	Independent: Customer Satisfaction Dependent: Performance of IAT	Students satisfied by IAT courses No. of students that enroll from current student referrals	Ordinal	Questionnaire & Interviews	Correlation	Descriptive Analysis Mean, Percentage, Standard Deviation
To determine how employee involvement in institutional planning influences implementation of TQM at IAT	Independent: Employee Involvement Dependent: Performance of IAT	Number of employees that are satisfied with IAT Succession Planning Qualifications	Ordinal	Questionnaire & Interviews	Correlation	Descriptive Analysis Mean, Percentage, Standard Deviation
To determine to what extent student involvement influences TQM in institutions of higher learning	Independent: Student Involvement Dependent: Performance of IAT	Number of students that are involved in decision making Number of students that are satisfied with IAT	Ordinal	Questionnaire & Interviews	Correlation	Descriptive Analysis Mean, Percentage, Standard Deviation

<b>Research Objective</b>	<b>Variable Type</b>	<b>Indicator</b>	<b>Measurement Scale</b>	<b>Data Collection Methods</b>	<b>Tools of Analysis</b>	<b>Data Analysis</b>
	Dependent: Performance of IAT	Preference by learners for enrollment Timely completion of courses Quality graduates Preference of graduates by employers Satisfied employees	Ordinal	Questionnaire & Interviews		Descriptive Analysis Mean, Percentage, Standard Deviation

## CHAPTER FOUR: DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

### 4.1 Introduction

This chapter provides the results and the discussions of the findings of the research. The data that was collected from the respondents was analyzed using Descriptive statistics such as mean and standard deviation, correlation was also used to study the relationship of aspects of TQM on performance.

### 4.2 Questionnaire Response Rate

This section discusses the respondents, the number of responses, the department where the respondents were working in, amongst others.

#### Table 4.1 Respondents

The table below shows the percentage of respondent in different departments and their position in the Institute of Advanced technology.

**Table 4.1 :Distribution of respondents by position**

Respondents	No. of Response	Percentages of Responses
Students	235	90%
Employees	18	7%
Senior managers	9	3%
	262	100

From table 4.1, the findings show that the majority of the respondents at 90% were students, 7% were employees while 3% were senior managers. The majority of those sampled for the study were students. This is because the targeted population had more students than the staffs.

**Table 4.2 Departments where the Managers and Employees belonged**

Distribution of respondents by department

		Managers	Employees
Valid	AT	22.2	22.2
	EUT	0.0	44.5
	Faculty	0.0	22.2
	Marketing	11.1	0.0
	MOL	11.1	11.1
	Training	44.5	0.0
	Ufunguo	11.1	0.0
	Total	100.0	100.0

In the AT department, 22.2% of the respondents were managers while a similar percentage (22.2%) were employees. In the EUT department, there was no manager while the employees were 44.5%. In the faculty, there was no manager either while the employees were 22.2%. In the marketing department, 11.1% were managers while there were no employees. In MOL department, the managers and the employees sampled in terms of percentage were the same at 11.1%. In the training department, there were no employees sampled while the managers were 44.5%. In the Ufunguo scholarship department, 11.1% were managers while there was no employee sampled.

**Table 4.3 Gender of the respondents**

Distribution of respondents by gender.

		Valid Percent	Cumulative Percent
Valid	Female	33.3	33.3
	Male	66.7	100.0
	Total	100.0	

From table 4.2.3, 33.3% of the respondents were female while the majority were male. They accounted for 66.7%.

**Table 4.4 Age groups**

Distribution of respondents by age-group.

		Valid Percent	Cumulative Percent
Valid	18-25 yrs	56.5	56.5
	26-40 yrs	42.7	99.2
	41-55 yrs	0.8	100.0
	Total	100.0	

The majority of the respondents, 56.5%, were aged between 18-25 years, 42.7% were aged between 26-40 years while 0.8% were aged between 41-55 years. The two age groups of 18-25 years and 26-40 years are significant since they consist of students and staff. This is relevant in addressing the questions on the topic under study.

### **4.3 Leadership and Work Performance at IAT**

The respondents were asked on how Leadership influences implementation of TQM at IAT which included responding on the Vision, Mission and Values of the institute and the discussion was as given in the table below.

**Table 4.5 Vision, Mission and Values of the institute**

Does your organization have a clearly stated Vision, Mission and Values in place?

		Percent	Cumulative Percent
Valid	Yes	100.0	100.0

All the respondents noted that the institute had a clearly stated vision, mission and values in place. This is important with regard to the issue of total quality management on performance since Visionary Leadership encompasses the role of top management in defining a vision, mission, strategic objectives, and shared values for the organization's growth and development. In quality management context, the visionary leaders need to emphasize the importance of transformation through open communication to achieve a shared approach to change. This is in line with the study done by Taffinder (1995) who noted that top management is responsible for quality leadership and providing support to achieve superior performance. He further highlighted the importance of leadership in the process of ascending to world-class status, and emphasized

the need for leadership to establish a high-performance culture, high-performance delivery processes and services in support of this objective.

**Table 4.6 Descriptive Statistics of the time duration the students have been at the institute**

The table below shows the descriptive Statistics of the time duration the students had been at the institute.

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Time	235	2	1	3	1.87	.628

From the table majority of respondents had on average spent 1.87 years in pursuing their courses. This indicates that on average students had taken at least one year to pursue the courses at IAT and this is enough time for the institution to produce leaders that are able to improve performance in different industries and hence leadership influence of total quality management implementation on performance of institutions of higher learning. Students getting enough time to be involved in decision making make them get informed and hence creates a good working environment of the institution to be more effective. This is supported by the study that was done by Maina (2011) who found that colleges that keep students informed of the challenges that they face in providing services, candidly explaining any setbacks and how these are handled gives students an opportunity to experience management in action.

**Table 4.7 Courses taken by students at the Institute**

The table below shows the courses taken by students at the Institute.

		Valid Percent	Cumulative Percent
Valid	Certificate	6.8	6.8
	Degree	40.0	46.8
	Diploma	53.2	100.0
	Total	100.0	

From the table 4.2.3, 6.8% of the respondents were taking certificate courses, 40.0% degree courses while the majority at 53.2% were taking diploma courses. According to Standa (2007), quality management involves effective management with relevant stakeholders in order to gain

their confidence and this will be created and be defined by what the person does or who the person is in any institution. Thus students if they take degree course they take more time in the institution unlike the one who takes certificates and this will enable them to learn more about the institutions environment and hence perform their studies as students with minimal risks since they are used to the procedures and policies.

**Table 4.8 Institute ensures that the Vision, Mission and Values are shared**

How does your organization ensure the Vision, Mission and Values are shared with students and other stakeholders?

Means	% of Response
Forums	10
Training	12
Orientation	72
Other means	1.5
I don' know	4.5
Total	100

From the study, 10.0% of the respondents said that the Institute ensured that the vision, mission and values were shared with students and other stakeholders through organized forums, 12% said it took place though training, the majority at 72% said it took place though orientation, 1.5% said it took place through different other means while 4.5% said they did not know. From the findings, it is evident that orientation is the platform where vision, mission and values of the institute were shared. This was supported by Zairi (1994) who argued that in TQM environment, leaders focus on employee autonomy, recognition, coaching, and development. Taffinder (1995) noted that top management is responsible for quality leadership and providing support to achieve superior performance and this increases productivity and quality of the products.

**Table 4.9 Organization leadership or management style**

Which of the following statements best describes your organization Leadership/ Management style?

	Valid Percent	Cumulative Percent
Valid Leaders/Managers resolve issues alone	66.7	66.7
We work together with our managers to resolve issues	22.2	88.9
We employ consultants to resolve issues for us	11.1	100.0
Total	100.0	

From the study, 66.7% of the respondents noted that the leaders or managers resolved issues alone, 22.2% said they worked together with their managers to resolve issues while 11.1% said they employed consultants to resolve issues for them. However, the most frequently cited reason for the failure of any quality initiative is the lack of viable commitment from management (Maguad, 2002). Organization's management style relates positively with the quality management system required by any institution, oftentimes management is reluctant to change their paradigms or old habits. Managers fail to realize that quality improvement starts with them, that they must lead by example if they have to cause others to behave differently. They also fail to understand that quality management requires a change in the roles, responsibilities, and behaviors of every participant in the organization starting with the leadership

**Table 4.10 Suggestions on how difficult issues should be handled**

Given a chance to suggest how you would like difficult issues to be tackled in your organization, which of the following statements would you vote for?

- a. Involve all stakeholders in tackling difficult issues that affect my work
- b. Allow management/ leaders to tackle all difficult issues that affects my work
- c. Work together with my Juniors in tackling issues that affect my work
- d. Let consultants tackle the difficult issues for us.

	Valid Percent	Cumulative Percent
Valid No Response	22.2	22.2
Yes	77.8	100.0
Total	100.0	

On the issue, 22.2% gave no response while the majority (77.8%) said yes to the fact that there was need to involve all stakeholders. If all the stakeholders are involved in handling issues of the institution, it creates team work and hence proper management /leadership style is experienced which leads to good quality management system of the institution.

**Table 4.11 Managers views on the organization’s strategic plan**

Does your organization have a strategic plan in place?

		Percent	Valid Percent	Cumulative Percent
Valid	No	55.6	55.6	55.6
	Yes	44.4	44.4	100.0
Total		100.0	100.0	

44.4% of the respondents said that the organization had a strategic plan while 55.6% said it did not have one. Based on extensive studies, researchers have concluded that leadership and top management commitment is the most critical and crucial prerequisite for institutional success when implementing TQM (Dale, 1999) and hence organizations should that the strategic plan should be disseminated to ensure buy-in from all stakeholders.

**Table 4.12 Employees involvement in the formulation of strategic plan**

If yes in Table 4.3.7, were employees involved in its formulation?

		Percent	Valid Percent	Cumulative Percent
Valid	Suggestions	22.2	22.2	22.2
	Questionnaire Survey	55.6	55.6	77.8
	Were never involved at all	22.2	22.2	100.0
Total		100.0	100.0	

From the study, 22.2% said the employees were involved through the suggestions they gave, 55.6% said it was through the questionnaire survey while 22.2% said they were never involved at all. Cumulatively 77.8% of the employees were involved in the formulation of the strategic plan of the institution. This enables creative problem solving and continuous improvement (Belbin, 1993). According to Novak (2002), leadership alone is not sufficient, but it needs to be complemented by teams involved in the outcomes. An ancillary benefit of teams is that they

create an identity for individuals and therefore have the opportunity to mould a solid and cohesive culture which generates and perpetuates the workplace norms and ethics and hence this requires the inclusion of all employees in strategic plan of the institution.

**Table 4.13 Descriptive statistics of Total Quality Management**

	Mean	Std. Deviation
Level of quality programs	5.50	1.000
Level of quality observed	8.75	.500
Rate on Performance	8.25	.957
Timely Completion	9.50	1.000
Quality graduates	8.75	.957
Preference of graduates by employer	8.25	.500

From the table, the level of quality programs had an average of 5.50 which is averagely high from the likert scale and has a small standard deviation of 1 which indicates that majority of the respondents were in agreement that the quality of the programs was fair compared to other institutions in the region.

Level of quality observed by students had an average of 8.75 which is extremely high from the likert scale and has a very small standard deviation of 0.5 which indicates that majority of the students were in agreement that the quality of the programs was good compared to other institutions in the region.

Rate on Performance of IAT as an institution of choice by learners had a mean of 8.25 which is extremely high and it had a very small standard deviation of 0.957 which indicated that many students were happy with the quality of services offered by the institution. This indicates that implementation of TQM influences performance of the institution positively.

Timely Completion of courses by students had a mean of 9.50 which is extremely high and had a small standard deviation of 1 which indicated that majority of the respondents accepted that most students complete their course on time and this is done by use of procedures and guidelines set by IAT management and this eventually increases performance of this institution.

Quality of graduates from IAT had a mean of 8.75 which is extremely high from the likert scale and had a very small standard deviation of 0.957 which indicates that majority of respondents

accepted that the quality of graduates is good. This suggests that proper procedures are followed in training and evaluating students hence increase in performance.

Preference of graduates by employer had a mean of 8.25 which is most preferred from the likert scale and had a small standard deviation of 0.5 hence many of the respondents accepted that IAT graduates are good and are preferred by employers in the region.

**Table 4.14 One-Sample Test of Total Quality Management**

	t	df	Sig. (2-tailed)
Level of quality programs	5.000	261	.015
Level of quality observed	35.000	261	.000
Rate of Performance	17.234	261	.000
Timely Completion	19.000	261	.000
Quality graduates	18.278	261	.000
Preference of graduates by employer	33.000	261	.000

From the table 4.3.10 This indicates some significant of the statements since their T-tests are significant (p-value<0.05).From the response it indicates that all aspects of total quality management were significant in determining the performance of institution of higher learning since their significant level are less than 0.05 i.e (p=.000).

**Table 4.15 Correlations**

Aspects of TQM		Performance
Level of quality observed	Pearson Correlation	.581(*)
	Sig. (2-tailed)	.
	N	262
Rate Performance	Pearson Correlation	.533(**)
	Sig. (2-tailed)	.000
	N	262
Timely Completion	Pearson Correlation	.414(**)
	Sig. (2-tailed)	.000
	N	262
Quality graduates	Pearson Correlation	.586(**)
	Sig. (2-tailed)	.000

	N	262
Preference of graduates by employer	Pearson Correlation	.158(*)
	Sig. (2-tailed)	.015
	N	262

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

From the table 4.3.11, all aspects of TQM have a positive correlation on performance. Level of quality observed has  $r=.581$  which is significant at  $p=0.05$ , rate of performance of IAT as a choice to students has  $r=.533$  which is significant at  $p=0.01$ , Timely completion has  $r=.414$  which is significant at  $p=0.001$ , quality of graduates has  $r=.586$  which is significant at  $p=0.01$  and preference of graduates by employer has  $r=.015$  which is significant at  $p=.05$ . This indicates that the aspects of TQM had a positive relationship with the performance of the institution of higher learning in Kenya.

#### 4.4 Customer Satisfaction and performance at IAT

The respondents were asked to what extent customer satisfaction influences performance at IAT.

**Table 4.16 Planning Process**

What is the planning process employed by your organization in identifying your target customers?

Process	Yes Response (%)
Marketing	33
Enquiry List	17
No response	50
Total	100

From the figure above, 33% of the respondents indicated that marketing is the planning process employed by the organization in identifying customer's target, 17% indicated enquiry list and 50% had no idea about the planning process employed by IAT to target customers. Half of the population cumulatively had an idea about the planning process especially marketing and

enquiry list, hence they can participate in the product repositioning and this will improve the quality of output of the product.

**Table 4.17 Table of Strategies of maintaining a loyal customer base**

What strategy (ies) do you have for maintaining a loyal customer base?

Strategy	Yes Response (%)
Response to feedback	54.2
Awarding outstanding Customers	16.7
Frequent Audits	20.0
Maintain standards e.g. WTRI, PRI	9.9
Total	100

From the study, 54.2% of the respondents indicated that response to feedback was a major strategy of maintaining a loyal customer base, 16.7% indicated awarding outstanding Customers, 20.0% indicated frequent audits and 9.9% indicated Maintaining standards e.g. WTRI, PRI. Response to feedback solves many of customers’ problems and this leads to customer satisfaction. Awarding outstanding customers and frequent audits ensure retention.

**Table 4.18 Determine customer satisfaction**

How do you determine customer satisfaction?

	Yes Response (%)
Use of CCRL- Customer complaint report log	40.0
Evaluate performance	32.2
Audit	5.4
Feed back	22.4
Total	100

The table above indicated that 40% of the respondents use of CCRL- Customer complaint report log to determine customer satisfaction, 32.2% evaluate performance of both students and employees, 5.4% use audits and 22.4% use feedback. There is a clear procedure on how to

evaluate customer satisfaction and this ensures all customer data is captured and most of it is used in making decisions on service improvement and this leads to customer satisfaction.

**Table 4.19 Customer satisfaction and Retention Challenge**

What customer satisfaction and retention challenges does your organization face?

		Percent	Valid Percent	Cumulative Percent
Valid	Lack of enough facilities	27.8	27.8	27.8
	Competition	72.2	72.2	100.0
	Total	100.0	100.0	

From the table, 27.8% of the respondents indicated that the customer satisfaction and retention challenges are due to institution lack of enough facilities e.g. library and sports items and 72.2% indicated completion from other institutions as a major challenge of customer satisfaction and retention. Competition is major challenge because, many companies have come to embrace a more customer-driven definition of quality (Evans et al, 1999). Quality has come to be defined as meeting or exceeding customer expectations.

**Table 4.20 Overcoming Customer satisfaction and Retention Challenge**

What has your institution done to enable you overcome the customer satisfaction and retention challenges mentioned above?

	Yes Response (%)
Maintain quality service	77.8
Provide library facilities for students	11.2
Review the programmes	10.0
Total	100

From table above, 77.8% of the respondents indicated that the institution overcomes customer satisfaction and retention challenge by maintaining quality, 11.2% by providing library facilities for students and 10% by reviewing the programmes to suit customers' needs. Majority of the

respondents indicated that customers were retained by maintaining quality of the services offered to them. This further explains that customer satisfaction is a key issue in quality management and hence its **influence of total quality management implementation on performance of institutions of higher learning.**

**Table 4.21 Descriptive Statistics on Rate of importance attached to customer**

How would you rate the importance attached to customer satisfaction as a means of achieving TQM at IAT on a scale of 0-10?

	N	Minimum	Maximum	Mean	Std. Deviation
Rate importance attached to customer	262	3	10	9.00	0.202
Valid N (listwise)	262				

From the table above, the rate on importance attached to customers by employees and managers had a mean of 9.00 which is close to very important from likert scale and had a very small standard deviation of 0.202 which indicates that employees and managers value customers most during their service delivery.

**Table 4.22 One-Sample Test of Total Quality Management**

	t	df	Sig. (2-tailed)
Rate importance attached to customer	22.045	261	.000
Level of quality programs	5.000	261	.015
Level of quality observed	35.000	261	.000
Rate of Performance	17.234	261	.000
Timely Completion	19.000	261	.000
Quality graduates	18.278	261	.000
Preference of graduates by employer	33.000	261	.000

From the table 4.4.6 This indicates some significant of the statements since their T-tests are significant ( $p\text{-value} < 0.05$ ). From the response it indicates that all aspects of total quality management were significant in determining the performance of institution of higher learning since their significant level are less than 0.05 i.e ( $p = .000$ ).

#### 4.5 Employee involvement in institutional planning and performance at IAT

Respondents were asked on which way employee involvement influences implementation of TQM at IAT. The discussion was as given in the tables below.

**Table 4.23 Frequency of the Staff training**

How frequently are staff trainings done in a year?

		Percent	Cumulative Percent
Valid	Frequent	27.8	33.3
	Not Frequent	72.2	100
Total		100.0	

27.8% indicated IAT carries frequent staff training and 72.2% indicated that there is no frequent staff training done to employees of IAT. All of the respondents indicated that training is relevant, recruitment of jobs are based on education qualifications except management positions and there is no conflict that occurs regarding employing unqualified staff.

**Table 4.24 Resource allocation for marketing plan**

How are resources allocated for implementation of the marketing plan?

		Percent	Cumulative Percent
Valid	Through managers	33.3	33.3
	Marketing Department	66.7	100.0
Total		100.0	

From the research, 33.3% indicated that allocation for marketing plan is done through managers and 66.7% indicated that it's done by the marketing department. Based on this scenario, the realization or non-realization of customer expectations would appear to be the primary determinant of customer levels of satisfaction (Oliver, 1993). In terms of which determinants are

most important in creating this realization, however, Johnston (1995) provides an interesting dilemma by suggesting that the presence (or absence) of any specific determinant, even when based upon a relatively high importance weighting, should not necessarily be construed to imply the creation of satisfaction/dissatisfaction. Hence marketing department is required to implement the marketing plan.

**Table 4.25 Major Decision makers**

		Percent	Cumulative Percent
Valid	Senior Management	44.4	44.4
	C.E.O	55.6	100.0
Total		100.0	

44% of the respondents indicated that major decision makers at IAT are Senior Management and 55.6 indicated that decisions are done by chief Executive officers. Taffinder (1995) noted that top management is responsible for quality leadership and providing support to achieve superior performance and this will provide good and proper quality management system.

**Table 4.26 Frequency**

How frequently are staff performance appraisals done?

		Percent	Cumulative Percent
Valid	Semi- annually	33.3	33.3
	Monthly	11.1	44.4
	Annually	55.6	100.0
Total		100.0	

33.3% of the managers carried out staff performance appraisal semi-annually, 11.1% monthly and 55.6% annually. Continuous evaluation is important since employees, students and stakeholders are capable of realizing their mistakes and correct them for quality operations.

**Table 4.27 Descriptive statistics of Total Quality Management**

	Mean	Std. Deviation
Rate on employee involvement in the implementation of TQM	7.89	1.453
Level of quality observed	8.75	.500
Rate Performance	8.25	.957

From the table, Rate on employee involvement in the implementation of TQM has a mean of 7.89 and a small standard deviation of 1.453 from Likert scale which indicates that majority of the respondents were in agreement that they get involved in TQM implementation to a greater extent. This will lead to teamwork in achieving major goals of the institute and hence influence the performance of the institute.

**Table 4.28 One-Sample Test of Total Quality Management**

	t	df	Sig. (2-tailed)
Rate employee involvement	16.289	261	.000
Level of quality programs	5.000	261	.015
Level of quality observed	35.000	261	.000

From the table 4.5.6 This indicates some significant of the statements since their T-tests are significant ( $p\text{-value} < 0.05$ ). From the response it indicates that all aspects of total quality management were significant in determining work performance of institution of higher learning since their significant level are less than 0.05 i.e ( $p = .000$ ).

**Table 4.29 Correlations**

Aspects of TQM		Performance
Level of quality observed	Pearson Correlation	.581(*)
	Sig. (2-tailed)	.
	N	262
Rate Performance	Pearson Correlation	.533(**)
	Sig. (2-tailed)	.000
	N	262
Timely Completion	Pearson Correlation	.414(**)
	Sig. (2-tailed)	.000
	N	262
Quality graduates	Pearson Correlation	.586(**)
	Sig. (2-tailed)	.000
	N	262
Preference of graduates by employer	Pearson Correlation	.158(*)
	Sig. (2-tailed)	.015
	N	262

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

From the table, all aspects of TQM have a positive correlation on performance. Level of quality observed has  $r=.581$  which is significant at  $p=0.05$ , rate of performance of IAT as a choice to students has  $r=.533$  which is significant at  $p=0.01$ , Timely completion has  $r=.414$  which is significant at  $p=0.001$ , quality of graduates has  $r=.586$  which is significant at  $p=0.01$  and preference of graduates by employer has  $r=.015$  which is significant at  $p=.05$ .

#### 4.6 Student involvement and performance at IAT

The respondents were asked to what extent student involvement influences implementation of TQM at IAT and the discussion was as given in the tables below.

**Table 4.30 Concerns on representation by students' representatives**

Do you have student representatives that represent your concerns to the IAT Management?

		Valid Percent	Cumulative Percent
Valid	I do not know	26.8	26.8
	No	34.0	60.9
	Yes	39.1	100.0
	Total	100.0	

From the study, 26.8 % of the respondents did not know the concerns on representations by students' representatives, 34% said no while 39.1% said yes.

**Table 4.31 How Representative were elected**

If yes in Table 4.6.1, how were these representatives elected?

		Valid Percent	Cumulative Percent
Valid	Simple majority vote by students in the class	11.1	11.1
	Elected by the Institute's management	21.3	32.3
	I do not know	67.7	100.0
	Total	100.0	

From the study, 11.1% of the respondents noted that the representatives were elected by a simple majority vote by students in the class, 21.3% said they were elected by the Institute's management while the majority at 67.7% did not know.

**Table 4.32 Mechanisms put in place to promote or ensure succession planning**

How adequate are the mechanisms put in place to promote or ensure succession planning within the governance and management structures in the student bodies?

		Valid Percent	Cumulative Percent
Valid	No response	27.3	27.3
	Not adequate	16.7	44.0
	Adequate	41.8	85.8
	Very adequate	14.2	100.0
	Total	100.0	

From the study,27.3% gave no response, 16.7% said they were not adequate, 41.8% said they were adequate while 14.2% of the respondents said that the mechanisms that had been put in place to promote or ensure succession planning within the governance and management structures in the student bodies were very adequate.

**Table 4.33 Response to queries from students/clients from the front office staff**

How well do front office staff responded to your queries?

		Valid Percent	Cumulative Percent
Valid	Fair	34.9	34.9
	Very Good	31.1	66.0
	Excellent	34.0	100.0
	Total	100.0	

From the study, 34.9% said the front office staff responses on how well they responded to queries was fair, 31.1% said they were very good while 34.0% said it was excellent. Excellent response suggests that problems are sorted out very well from customers and corrective actions are taken to improve the quality.

**Table 4.34 Involvement in IAT marketing activities by the students**

What is the involvement of students in IAT marketing activities like open days?

		Valid Percent	Cumulative Percent
Valid	Poor	13.6	13.6
	Fair	48.1	61.7
	Very Good	38.3	100.0
	Total	100.0	

From the study,13.6% said the involvement of the students in IAT in marketing activities like open days was poor, 48.1 said it was fair while 38.3% said it was very good. Involvement in open days welcomes suggestions from other stakeholder who can improve the operations of the institution.

**Table 4.35 Descriptive Statistics**

To what extent are students involved in the implementation of TQM at the Institute?

	N	Minimum	Maximum	Mean	Std. Deviation
Leadership involvement in TQM	18	5	10	7.44	1.294
Valid N (listwise)	18				

From the study, students are involved in the implementation of TQM at the Institute has a mean of 7.44 which is full implementation on likert scale and has a small standard deviation of 1.29 which indicates that majority of the respondents indicated that students are active team players in the implementation of TQM at the institute of Advanced Technology.

**Table 4.36 Checks to ensure quality**

Do you have any checks and balances to ensure Quality of programmes?

		Valid Percent	Cumulative Percent
Valid	Yes	47.0	47.0
	No	14.0	61.00
	I do not know	39.0	100.0
	Total	100.0	

From the findings, 47% of the respondents accepted that IAT have checks to ensure qualities of their program is maintained, 39% do not know and 14% said that IAT does not have checks and balance to ensure quality.

**Table 4.37: Correlations table of extent of respondents relation with Total Quality Management**

		Total Quality Management
Rate on performance	Pearson Correlation	.130
	Sig. (2-tailed)	.607
	N	18
Timely Completion	Pearson Correlation	-.227
	Sig. (2-tailed)	.365
	N	18
Quality graduates	Pearson Correlation	.616(**)
	Sig. (2-tailed)	.006
	N	18
TQM implementation	Pearson Correlation	.278
	Sig. (2-tailed)	.264
	N	18

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

From tale 4.6.8 all the determinants of respondents relation have a positive relationship with Total Quality Management on performance of institutions of higher learning except timely completion on the duties assign to employees which has a negative correlation which is not significant ant  $p < .01$  and  $p < .05$  ( $r = -.227, p = .365$ ). Quality graduates have a strong relationship with Total Quality Management and its significant and  $p < .01$  ( $r = .616, p = .006$ ) This indicates that the presence of total quality management systems in institutions of higher learning increases the training standards and hence quality graduates.

#### 4.7 Discussion of Findings

This section looks at findings of the four variables, that is: leadership, customer satisfaction, employee involvement and student involvement and their influence the performance of institutions of higher learning. This section further looks at how these finding are linked to previous literature. The findings show that though the variables have an influence on organization performance, the significance varies from variable to another. All this is in line with the findings in the literature review which indicates that that the main motivation for

organizations deciding to implement TQM is continuously improving performance to ensure survival and growth in a sector that is has experienced cut- throat competition in the recent past.

#### **4.7.1 Influence of leadership on performance of institution of higher learning.**

On the issue of leadership, all the respondents noted that the institute had a clearly stated vision, mission and values in place and 93.2% understand the mission and vision of the institution .The mission,vision and values are shared during orientation of new students and staffs . This was important with regard to the issue of total quality management on performance. Visionary Leadership encompasses the role of top management in defining a vision, mission, strategic objectives, and shared values for the organization's growth and development which is done during orientation, training and some forums carried by the institution. This indicates that the quality services offered by the institution is properly guided by the structure of organization where the institution involves managers in strategic decision making and hence they represents the views of other employees and this improves performance of the institution. This is confirmed by Quality Gurus who stressed that leadership is vital for effective implementation of total quality management initiatives and Taffinder (1995) noted that top management is responsible for quality leadership and providing support to achieve superior performance. The study also indicated that 88.9% of the respondents cumulatively suggested that leaders/managers resolve issues alone and that employment work together with our managers to resolve issues.

#### **4.7.2 Influence of customer satisfaction on performance of institutions of higher learning.**

The institution has a clear strategy of maintaining a loyal customer base. This is indicated by 54.2% use of response to feedback from clients and students and internal monitoring of daily operations and quality of services offered by the institution. The major challenge of customer satisfaction and retention is competition which accounts up to 72.8% and lack of facilities 27.2%. The institution overcomes these challenges by maintaining quality in their services and this enables them to retain their customers and this improves performance of the institution. The institution also has a structure to determine customer satisfaction which includes use of customer logs, audits, feedbacks and evaluation of performance. Rate of importance attached to customer is 9.00 on average which is most important and this increases the performance of institution. Many educational institutions are very hesitant to consider themselves as customer-driven

entities (Lewis et al, 1994). Yet one fact has been proven over and over again; Customer-driven organizations are effective because they are fully committed to satisfying, even anticipating customer needs and this will influence total quality management implementation on performance of institutions of higher learning.

#### **4.7.3 Influence of students involvement on performance of institution of higher learning.**

From the study, students are allowed to elect their representatives who represent their concerns to other levels of management for decision making. Proper mechanisms are in place to ensure succession planning which is adequate within the organization. Students are also involved in marketing activities and this enhances teamwork within the institution and hence increases performance. The students are involved in electing leaders and hence this enable them to participate in getting leaders who will provide good leadership that will boost performance in the institution of higher learning.

#### **4.7.4 Influence of employees involvement on performance of institution of higher learning**

From the study, employees are trained by the management and this enables them to become good leaders at work and hence improves performance of the institution. Also proper mechanisms are in place to ensure succession planning which is adequate within the organization. Employees are also involved in marketing activities and this enhances teamwork within the institution and hence increases performance. According to Drucker (1989), employee engagement can increase the understanding of organizational policies. It involves processes such as lower levels of decision making, adopt the experience, knowledge and the ideas for the advancement of the organization. Employees shall be given due recognition for their contributions and their ideas. It is a psychological process to develop confidence between the members of the organization and encourage them to make decisions and solve problems with each other and this will influence TQM implementation on performance of higher learning institutions. There are also frequent staff appraisals done by the institutions to its staff and this aims at improving performance and services offered by the institution. Also employees are well involved in the implementation of TQM.

## **CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter consists of a summary of the findings of the research, conclusions relating to the research objectives, suggestions or recommendations on the influence of total quality management implementation on performance of institutions of higher learning: the case of institute of advanced technology in Kenya and finally areas that need further research.

### **5.2 Summary of Findings**

The purpose of this research was to establish the influence of total quality management on performance of institutions of higher learning in Kenya, a case of institute of advanced technology. The study focused on addressing solutions of four research questions; leadership, customer satisfaction, employee involvement and student involvement.

The study found out that the rate on importance attached to customers by employees and managers had a mean of 9.00 which is close to very important from likert scale and had a very small standard deviation of 0.202 which indicates that employees and managers place a high value on customers during their service delivery.

The study also found out that the rate on employee involvement in the implementation of TQM has a mean of 7.89 and a small standard deviation of 1.453 from Likert scale which indicates that majority of the respondents were in agreement that they get involved in TQM implementation to a greater extent. This will lead to teamwork in achieving major goals of the institute and hence influence the performance of the institute.

The study established that students involvement in the implementation of TQM at the Institute has a mean of 7.44 which is full implementation on likert scale and has a small standard deviation of 1.29 which indicates that majority of the respondents indicated that students are active team players in the implementation of TQM at the institute of Advanced Technology.

This study also established that the level of quality programs had an average of 5.50 which is averagely high from the likert scale and has a small standard deviation of 1 which indicates that majority of the respondents were in agreement that the quality of the programs was fair compared to other institutions in the region. Level of quality observed by students had an average of 8.75 which is extremely high from the likert scale and has a very small standard deviation of 0.5 which indicates that majority of the students were in agreement that the quality of the programs was good compared to other institutions in the region. Rate on Performance of IAT as an institution of choice by learners had a mean of 8.25 which is extremely high and it had a very small standard deviation of 0.957 which indicated that many students were happy with the quality of services offered by the institution. This indicates that implementation of TQM influences performance of the institution positively. Timely Completion of courses by students had a mean of 9.50 which is extremely high and had a small standard deviation of 1 which indicated that majority of the respondents accepted that most students complete their course on time and this is done by use of procedures and guidelines set by IAT management and this eventually increases performance of this institution. Quality of graduates from IAT had a mean of 8.75 which is extremely high from the likert scale and had a very small standard deviation of 0.957 which indicates that majority of respondents accepted that the quality of graduates is good. This suggests that proper procedures are followed in training and evaluating students hence increase in performance. Preference of graduates by employer had a mean of 8.25 which is most preferred from the likert scale and had a small standard deviation of 0.5 hence many of the respondents accepted that IAT graduates are good and are preferred by employers in the region.

### **5.3 Conclusion**

The Influence of total quality management on performance of institutions of higher learning is positive and improves the performance of these institutions in terms of growth and development. All aspects of total quality management such as Level of quality observed, Performance Rate, Timely Completion, Quality graduates and Preference of graduates by employers have a positive relationship on performance. Hence Organizations need to embrace total quality management on their operations since it has a bearing on the performance. For leadership to relate positively to an organization's performance, leaders /managers should be given maximum independency in making their decisions and involving other employees in decision making.

#### **5.4 Recommendations**

Organizations should ensure that their staff are well acquainted with the mission, vision and values of those organizations since at some point they will include them in decision making and hence they have to provide good leadership in case of succession within the organization.

Organizations should also make clear the mechanisms that they have put in place to promote or ensure succession planning.

#### **5.5 Suggested Areas for Further Research**

1. Since the study was on the influence of Total quality management on performance of institutions of Higher Learning, the same study should be carried out in corporate institutions like the banks, insurance companies, etc.
2. Another study could be carried out on the role of the managers in the implementation of Total quality management in their institutions and also on the role of TQM on development of new programs for higher learning institutions.

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## APPENDICES

### *Appendix I: Letter of Transmittal*

Jacqueline Salima W. Mtongolo,  
University of Nairobi,  
School of Post graduate Studies,  
P.O. Box 30197 -00200,  
Nairobi.

**To whom it may concern,**

Dear Sir/Madam,

**RE: REQUEST FOR ASSISTANCE IN RESEARCH STUDY**

I wish to undertake a research on factors affecting Total Quality Management Implementation in Institutions of Higher Learning, A case of the Institute of Advanced Technology (Nairobi) in partial fulfillment of the requirements of the degree of Master of Arts in Project Planning and Management at the University of Nairobi.

I hereby seek your support and cooperation in the data collection process. All information obtained will be treated with maximum confidentiality and will only be used for academic purposes. A copy of the research report will be availed to you on request.

Your cooperation will be highly appreciated.

Yours Sincerely,

**Jacqueline Salima W. Mtongolo,**

**L50/72642/08**

**Appendix II. Questionnaire for Employees**

This questionnaire aims at collecting data for the study entitled: **Influence of Total Quality Management Implementation on Performance of Institutions of Higher Learning: The Case of Institute of Advanced Technology in Kenya.** Total Quality Management (TQM) is a structured system for meeting and exceeding customer needs and expectations by creating organization-wide participation in the planning and implementation of improvement (continuous and breakthrough) processes.

This questionnaire forms an integral part of the study and the respondents are kindly requested to complete and give any additional information they might feel is necessary for the study. The data required is for academic purposes only and will be treated with strict confidentiality. (Please be as objective as possible)

**Part A: General Information**

- 1. Branch name.....
- 2. Current designation at the Institute.....
- 3. Respondent’s department.....
- 4. Respondent’s gender (*Please tick one*)
  - a) Male ( ) b) Female ( )
- 5. Which one of the following age groups do you belong to? (*Please tick one*)
  - a) 18-25 yrs.( ) b) 26-40 yrs.( ) c) 41-55 yrs ( ) d) over 55 yrs ( )

**Part B: Leadership**

- 6. Does your organization have a clearly stated Vision, Mission and Values in place?  
(*Please tick one*)
  - a) Yes ( )
  - b) No ( )
  - c) I do not know ( )
- 7. To what extent do you think employees in your organization understand the Organization’s Vision, Mission and Values? (*Please tick one*)
  - a) Fully conversant ( )
  - b) Some understand ( )

- c) Barely understand ( )
- d) Don't understand ( )

8. How does your organization ensure the Vision, Mission and Values are shared with students and other stakeholders?

- a) Forums ( )
- b) Training ( )
- c) Orientation ( )
- d) Using other means of communication ( )
- e) I do not know ( )

For d) please specify the means

.....  
 .....

9. Which of the following statements best describes your organization Leadership/ Management style? *(Please tick one)*

- a) Leaders/Managers resolve issues alone ( )
- b) We work together with our managers to resolve issues ( )
- c) We employ consultants to resolve issues for us ( )
- d) Any other *(please specify)*.....

10. Given a chance to suggest how you would like difficult issues to be tackled in your organization, which of the following statements would you vote for? *(Please tick one)*

- a) Involve all stakeholders in tackling difficult issues that affect my work ( )
- b) Allow management/ leaders to tackle all difficult issues that affects my work ( )
- c) Work together with my Juniors in tackling issues that affect my work ( )
- d) Let consultants tackle the difficult issues for us. ( )

11. On a scale of 0-10, how would you rate the extent to which the leadership of the institution is involved in implementation of TQM?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

To a very small extent

To a very large extent

**Part C: Customer Satisfaction**

12. What is the planning process employed by your organization in identifying your target customers?.....  
.....  
.....

13. What strategy (ies) do you have for maintaining a loyal customer base?

- a) Response to feedback ( )
- b) Awarding outstanding staff in customer service ( )
- c) Frequent audits ( )
- d) Maintain standard measures of quality i.e WTRI ,PRI etc ( )

14. How do you determine customer satisfaction?

- a) Evaluate performance ( )
- b) Audits ( )
- c) Feed back( )
- d) Other (specify)....

15. What customer satisfaction and retention challenges does your organization face?

- a) Lack of enough facilities
- b) Lack of trained staff
- c) Lack of enough time to train
- d) Competition
- e) Other (specify).....

16. What has your institution done to enable you overcome the customer satisfaction and retention challenges you have listed above? (*please tick one* )

- a) Maintain quality of service provision ( )
- b) Provide library facilities for students ( )
- c) Review the programmes ( )
- d) Other (specify).....

17. How would you rate the importance attached to customer satisfaction as a means of achieving TQM at IAT on a scale of 0-10. *(please tick where appropriate)*

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
Not important Most important

**Part D: Employee Involvement**

18. Does your employer carry out staff performance appraisal on its employees?

- a) Yes ( )
- b) No ( )

19. How frequently are staff trainings done in a year?

- a) Very frequent ( )
- b) Frequent ( )
- c) Not frequent ( )
- d) Not at all ( )

20. Was the training you took relevant to your position? *(Please explain your answer)*

- a) Yes ( )
- b) No ( )

.....  
.....

21. Is recruitment of job vacancies done based on education qualifications?

*(Please explain your answer)*

- a) Yes ( )
- b) No ( )

.....  
.....

22. Do conflicts ever occur regarding employing of unqualified staff? *(Please give a brief explanation if yes?)*

- a) Yes ( )
- b) No ( )

.....  
.....  
23. On a scale of 0-10, rate the extent to which employees are involved in the implementation of TQM at the Institute? *(Tick where appropriate)*

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

To a very small extent

To a very large extent

**Part E: Total Quality Management**

24. Do you have any checks and balances to ensure Quality of programmes?

a) Yes ( )

b) No ( )

If YES, which ones are they?

a) Feed back ( )

b) Training ( )

c) Forums ( )

d) Don't know ( )

25. How do you rate performance of IAT as an institution of choice by learners on a scale of 0-10? *(Tick where appropriate)*

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Extremely low

Extremely high

26. How do you rate IAT in terms of timely completion of courses by students, on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Extremely poor

Excellent

27. How do you rate the quality of IAT graduates on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Extremely low

Extremely high

28. How do you rate IAT in terms of preference of its graduates by employers, on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Not preferred

Most preferred

29. On a scale of 0-10, how would you rate the extent to which TQM has been implemented at IAT? (*Tick where appropriate*)

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

No implementation

Full Implementation

### **Appendix III. Questionnaire for Management**

This questionnaire aims at collecting data for the study entitled: **Influence of Total Quality Management Implementation on Performance of Institutions of Higher Learning: The Case of Institute of Advanced Technology in Kenya.** Total Quality Management (TQM) is a structured system for meeting and exceeding customer needs and expectations by creating organization-wide participation in the planning and implementation of improvement (continuous and breakthrough) processes.

This questionnaire forms an integral part of the study and the respondents are kindly requested to complete and give any additional information they might feel is necessary for the study. The data required is for academic purposes only and will be treated with strict confidentiality. (Please be as objective as possible)

#### **Part A: General Information**

1. Branch name.....
2. Current designation at the Institute.....
3. Respondent's department.....
4. Respondent's gender (*Please tick one*)  
a) Male (    ) b) Female (    )
5. Which one of the following age groups do you belong to? (*Please tick one*)  
a) 18-25 yrs.(    ) b) 25-40 yrs.(    ) c) 40-55 yrs (    ) d) over 55 yrs (    )

#### **Part B: Leadership**

6. Does your organization have a clearly stated Vision, Mission and Values in place?  
(*Please tick one*)  
a) Yes (    )  
b) No (    )  
c) I do not Know (    )
7. To what extent do you think employees in your organization understand the Organization's Vision, Mission and Values? (*Please tick one*)  
a) Fully conversant (    )  
b) Some understand (    )  
c) Barely understand (    )

d) Don't understand ( )

8. How does your organization ensure the Vision, Mission and Values are shared with students and other stakeholders

- a) Forums ( )
- b) Training ( )
- c) Orientation ( )
- d) Using other means of communication ( )
- e) I don't know ( )

For d) please specify the means

.....  
.....

9. Does your organization have a strategic plan in place? *(Please tick one)*

- a) Yes ( )
- b) No ( )
- c) I do not Know ( )

10. If yes, how were employees involved in its formulation?

- a) open debate/storming ( )
- b) Suggestions ( )
- c) Questionnaires survey ( )
- d) Were never involved at all ( )

11. How adequate are the mechanisms put in place to promote or ensure succession planning within the governance and management structures

- a) Not adequate
- b) Adequate
- c) Very adequate

12. On a scale of 0-10, how would you rate the extent to which leadership of the institution is involved in implementation of TQM in your organization? *(Tick where appropriate)*

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Not important

Most important

**Part C: Customer Satisfaction**

13. How are resources allocated for implementation of the marketing plan?

- a) Through Managers
- b) Country manager
- c) Marketing Department
- d) Career Counsellors
- e) Don't know

14. How do you determine customer satisfaction?

- a) Use of feed back
- b) Evaluate students
- c) Use of CCRL-CUSTOMER COMPLAIN REPORT LOG

15. What customer satisfaction and retention challenges does your organization face?

.....  
.....

16. What has your institution done to enable you overcome the customer satisfaction and retention challenges you have listed above? *(please provide answer in the space below )*

.....  
.....

17. How would you rate the importance attached to customer satisfaction as a means of achieving TQM at IAT on a scale of 0-10? *(Tick where appropriate)*

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
Not important Most important

**Part D: Employee Involvement**

18. Who makes the major decisions in your organization?

- a) Senior Management ( )
- b) Lecturers ( )
- c) All staff are involved in the process ( )
- d) Any other *(please specify)*..... ( )

19. As a supervisor do you carry out staff performance appraisal on your employees?

- a) Yes ( )
- b) No ( )

20. How frequently are staff performance appraisals done? .....

21. Do you think there is a relationship between staff appraisal and employees performance.

- a) Yes ( )
- b) No ( )

Please explain your answer above  
 .....  
 .....

22. Does your organization offer any training programme for its employees?

- a) Yes ( )
- b) No ( )

23. Does the level of employee education have impact on his/her performance?

- a) Yes ( )
- b) No ( )

Please explain your response .....

24. Are terms of reference for all employees clearly laid out?

- a) Yes ( )
- b) No ( )

25. On a scale of 0-10, rate the extent to which employees are involved in the implementation of TQM at the Institute? (*Tick where appropriate*)

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
 To a small extent To a large extent

**Part E: Total Quality Management**

26. Do you have any checks and balances to ensure Quality of programmes?

- a) Yes ( )
- b) No ( )

If YES, which ones are they?

.....  
.....

27. What levels of Quality do you observe in these programmes?

- a) Very High ( )
- b) High ( )
- c) Satisfactory ( )
- d) Poor ( )

28. How often do you check to ensure quality is maintained?

- a. Daily ( )
- b. Weekly ( )
- c. End of term ( )
- d. Never at all ( )

29. On a scale of 0-10, how do you rate the extent to which TQM has been implemented at IAT? (*Tick where appropriate*)

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
No implementation Full Implementation

30. How do you rate performance of IAT as an institution of choice by learners on a scale of 0-10? (*Tick where appropriate*)

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
Extremely low Extremely high

31. How do you rate IAT in terms of timely completion of courses by students, on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )  
Extremely poor Excellent

32. How do you rate the quality of IAT graduates on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Extremely low

Extremely high

33. How do you rate IAT in terms of preference of its graduates by employers, on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Not preferred

Most preferred

**Appendix IV. Questionnaire for Students**

This questionnaire aims at collecting data for the study entitled: **Influence of Total Quality Management Implementation on Performance of Institutions of Higher Learning: The Case of Institute of Advanced Technology in Kenya.** Total Quality Management (TQM) is a structured system for meeting and exceeding customer needs and expectations by creating organization-wide participation in the planning and implementation of improvement (continuous and breakthrough) processes.

This questionnaire forms an integral part of the study and the respondents are kindly requested to complete and give any additional information they might feel is necessary for the study. The data required is for academic purposes only and will be treated with strict confidentiality. (Please be as objective as possible)

**Part A: General Information**

1. Branch name.....
2. Course being taken at the Institute.....
3. How long have you been at the Institute .....
4. Respondent’s gender (*Please tick one*)  
a) Male (    ) b) Female (    )
5. Which one of the following age groups do you belong to? (*Please tick one*)  
a) 18-25 yrs.(    ) b) 25-40 yrs.(    ) c) 40-55 yrs (    ) d) over 55 yrs (    )

**Part B: Student Involvement**

6. Does the Institute have a clearly stated Vision, Mission and Values in place? (*Please tick one*)  
a) Yes (    )  
b) No (    )  
c) I do not Know (    )
7. To what extent do you understand IAT’s Vision, Mission and Values? (*Please tick one*)  
a) Fully conversant (    )  
b) Somewhat understand (    )  
c) Barely understand (    )

d) Don't understand ( )

8. How does the Institute ensure the Vision, Mission and Values are shared with students

- a) Through forums ( )
- b) Training ( )
- c) Orientation ( )
- d) Using other means of communication ( )
- e) I don't know ( )

For d) please specify the means

.....

.....

.....

9. Do you have student representatives that represent your concerns to the IAT management? (*Please tick one*)

- a) Yes ( )
- b) No ( )
- c) I do not Know ( )

10. If yes, how were these representatives elected?

- a) Simple majority vote by students in your class ( )
- b) Elected by the Institute's management ( )
- c) I do not know ( )

11. How adequate are the mechanisms put in place to promote or ensure succession planning within the governance and management structures in the student bodies

- a) Very adequate ( )
- b) Adequate ( )
- c) Not adequate ( )

12. How well do front office staff respond to your queries

- a) Excellent ( )
- b) Very Good ( )
- c) Fair ( )
- d) Poor ( )

13. What is the involvement of students in IAT marketing activities like open days

- a) Excellent ( )
- b) Very Good ( )
- c) Fair ( )
- d) Poor ( )

14. On a scale of 0-10, rate the extent to which students are involved in the implementation of TQM at the Institute? *(Tick where appropriate)*

0 ( )    1 ( )    2 ( )    3 ( )    4 ( )    5 ( )    6 ( )    7 ( )    8 ( )    9 ( )    10 ( )

To a very small extent To a large extent

**Part C: Total Quality Management**

15. In your opinion, does IAT have checks to ensure quality of their programmes is maintained?  
*(Please tick one)*

- a) Yes ( )
- b) No ( )
- c) I do not Know ( )

16. What levels of Quality do you observe in these programmes?

- a) Very High ( )
- b) High ( )
- c) Satisfactory ( )
- d) Poor ( )

17. How do you rate performance of IAT as an institution of choice by learners on a scale of 0-10? *(Tick where appropriate)*

0 ( )    1 ( )    2 ( )    3 ( )    4 ( )    5 ( )    6 ( )    7 ( )    8 ( )    9 ( )    10 ( )

Extremely low Extremely high

18. How do you rate IAT in terms of timely completion of courses by students, on a scale of 0-10?

0 ( )    1 ( )    2 ( )    3 ( )    4 ( )    5 ( )    6 ( )    7 ( )    8 ( )    9 ( )    10 ( )

Extremely poor

Excellent

19. How do you rate the quality of IAT graduates on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Extremely low

Extremely high

20. How do you rate IAT in terms of preference of its graduates by employers, on a scale of 0-10?

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

Not preferred

Most preferred

21. On a scale of 0-10, how would you rate the extent to which TQM has been implemented at IAT? (*Tick where appropriate*)

0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 ( ) 7 ( ) 8 ( ) 9 ( ) 10 ( )

No implementation

Full implementation