

Impact of Quality Assurance and Standards on Performance in Higher Institution of Learning in Kenya

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ABSTRACT

Demand for university education in Kenya has significantly increased and continues to swell. Many secondary school students and the working class look for opportunities to pursue university education. Universities being accountable to the public, as stakeholders need to guarantee that they offer quality teaching, research and community service to their students. With the increasing numbers of students seeking places in public universities, the question of quality is critical and requires urgent attention. This study considers Quality standards as a result in a process of teaching and learning, which particularly emphasizes gaining good results in examinations. This study focuses on objectives such as: the effect of working tools and resources towards quality assurance and standards implementation as a result of effective delivery, supervision and management in higher institutional of learning, to determine whether the implementers of quality assurance and standards have been adequately trained to handle higher institutional curriculum and hence to establish the impact Quality standards in higher Institution of learning. This study utilizes the theories such as Ishikawa's Theory, Crosby's Theory, Deming's theory and Joseph Juran's Theory. Data has been collected from library archives, computer databases, and on-line resources.

Keywords: *Quality standards (QS), Higher Institution of Learning, International Organization for Standardization (IOS),*

1. INTRODUCTION

Due to dynamic changes in learning institutions in the world today, where by quality of services and management is an essential tool in sustaining competition; a universal standard is applied so to compete favorably with the rest in the pack. These standards apply to all over the world hence making these certified institutions world class. With the increasing numbers of students seeking places in public universities, the question of quality, Standardization and management is critical and requires urgent attention.

Universities being accountable to the public as stakeholders need to guarantee that they offer quality teaching, research and community service to its learners. Governments, policy makers, and civil society have emphasized that developing countries need to invest more in education and ensure that systems of education are managed efficiently, to maximize limited funds allocated to the sector to ensure that cost-recovery measures are adopted. Seeing improvement in the production system as a never-ending cycle, this study consider a higher institution as system, in the context of education, this may result in steadily boosting the quality of instruction to motivate the students to become creative and critical thinkers in a fast-changing technological world.

Total Quality Management (TQM) is a management philosophy developed for higher institution of learning. Its aim is to improve the quality of learning standards, but Educators believe that the TQM can also be applied in education. It reviews one of the interpretations of TQM, which focuses on enhancing the quality of the production system so that a quality product with "zero defects" will produced. This may result in a

process of teaching and learning, which particularly emphasizes gaining good results in examinations.

Management is provided with data on a continual basis and able to see progress or lack of progress towards goals and to take appropriate action. Increased productivity results from the initial evaluation and improvement of processes that occurs during the implementation process. The International Organization for Standardization (ISO) is recognized worldwide as the authority on quality management. It also gives the ability to remain/become competitive in the market and elimination of redundancy.

Higher institution as system seeing improvement in the production system as a never-ending cycle, in the context of education, this may result in 4wsteadily boosting the quality of instruction to motivate the students to become creative and critical thinkers in a fast-changing technological world. According to Abagi and Odipo (1997), education reform efforts in less industrialized countries have aimed at making education an effective vehicle for national development.

1.1 Quality Standards to be set in Higher Institution of Learning

Standards can become quality standards if actors/institutions reach an agreement to link them to quality. Yet, since quality itself is a complex construct with various dimensions and different meanings (cf. Harvey, 2006, or the often-cited older version Harvey & Green, 1993), it is important to consider which quality notions they are built upon or aim at. Teaching quality for

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example has frequently linked to student satisfaction standards or to competence standards.

In each case, the implications for setting, changing or raising the respective standard differ substantially. According to (cf. Lassnigg & Gruber, 2001), in principle, all standards have a normative function. On the one hand, standards can be addressed as fixed parameters, which do not give much leeway to the actors involved while, on the other hand, they can be used as adaptable concepts, which react sensitively to changes of their base of reference, Lassnigg & Gruber, 2001.

According to Feigenbaum (1994), “quality of education” is the key factor in “invisible” competition between countries since the quality of products and services is determined by the way that “managers, teachers, workers, engineers and economists think, act, and make decisions about quality”. The educational policy statements are found in a variety of sources; common among them being education acts, political statements, reports of education commissions, task forces and international agencies. Education policies are formulated to achieve political, pedagogical, economic, social or a combination of these objectives to suit the intentions and judgment of policy makers. The Japanese philosophy of quality initially emphasized product and performance and only later shifted concern to customer satisfaction (Sergesketter, 1993).

1.2 International Organization for Standardization (IOS)

ISO is a voluntary non-treaty federation of standards setting bodies of some 130 countries. Founded in 1946-47 in Geneva a UN agency, it promotes development of standardization and related activities to facilitate international trade in goods and services and cooperation on economic, intellectual, scientific and technological aspects. Implementation of ISO standards in higher institutions of learning assures that quality management and quality assurance are met leading to these institutions performing better since they offer services of better quality than before they were certified and uncertified counterparts.

ISO sets standards for service delivery, evaluation, control and Quality assurance in various fields. This has led to quality management, which is a management technique used to communicate to employees what is required to produce desired quality of products and services and too influences employees to complete tasks according to the quality specifications. Therefore, these standards set by ISO lead to assurances of quality in management i.e. quality assurance, which is the administrative and procedural activities that are implemented in a quality system so that requirements and goals for a product, service or activity will be fulfilled. Hence there is need to seek the impact of Quality Assurance and Standards on performance in Higher Institution of learning in Kenya

1.2.1 ISO 9001 Standards

Companies that go through the ISO 9001:2000 Quality Management Standards certification process have given a lot of thought to their processes, and how to maximize quality and efficiency. Once certified for QMS, the processes are established and guidelines in place for anyone to follow easily, making training, transitions, and trouble-shooting easier. The basic purpose of ISO is to set standards for quality service delivery to all stakeholders and shareholders of higher institutions of learning. This provides assurance of quality management; which in turn provides assurance to the stakeholders i.e. students, management, parents and the surrounding communities.

This should not just be a historical exercise, of course, but should also serve to emphasize that quality development in higher education is a great deal more than the formal quality assurance processes that policymakers like to focus upon when they speak about quality in higher education. Employee morale Defined roles and responsibilities, accountability of management, established training systems and a clear picture of how their roles affect quality and the overall success of the company, all contribute to more satisfied and motivated staff.

1.3 Objective

- a. Establish the effect of working tools and resources towards quality assurance and standards implementation as a result of effective delivery, supervision and management in higher institutional of learning
- b. Determine whether the implementers of quality assurance and standards have been adequately trained to handle higher institutional curriculum
- c. Establish the impact Quality standards in higher Institution of learning

Problem Statement : Although changes have been made in the Inspectorate arm of the Ministry of Education, little has been done to establish the role of Quality standards the Higher institution of learning. In Kenya higher learning institutions don't fully benefit from ISO standards due to lack of clear policies that guide ISO standards implementation by the managers of these institutions. There has been poor coordination by various heads of department and managers. As a result, the impact of ISO standards has been minimal. The implementers of these standards are not guided by coherent ISO policies towards its implementation. This has made it difficult to establish the impact of ISO standards on the institution's performance and growth. Research on ISO standard has been done however, few or none has been conducted on its impact on performance of higher learning institution in terms of management towards growth of these institutions. Implementation of these standards is necessary for the performance of institutions of higher learning.

1.4 A Quality Management System (QMS)

A quality management system (QMS) is a collection of Institutional processes focused on achieving your quality policy and quality objectives i.e. The learners' needs and wants. It is expressed as the Institutional structure, policies, procedures, processes and resources needed to implement quality management.

It is the systematic measurement, comparison with a standard monitoring of a process and associated feedback loop that confers error service delivery and result production. It's a way of preventing mistakes and defects in end results and avoiding problems when delivering solution or services to learners. ISO standards are set to ensure that both quality management and quality assurance are adhered in higher institution of learning so that the services offered is of the highest quality that is assured to satisfy the learners's needs.

1.5 Total Quality Management (TQM)

Total quality management (TQM) model has been used to measure management performance. This was a model used for a very long time where by the institution was charged with efforts to install and make permanent a climate in which it continuously improved its ability to deliver high quality products and services to its customers, here known as learners . While there's no widely agreed – upon approach TQM efforts typically draw heavily on previously developed tools and techniques of quality control. TQM has however been overshadowed by ISO 9000 as from late 1980's and early 1990's.

- a. Quality is defined by customer's requirement or learners' requirement
- b. Top management has direct responsibility for quality improvement.
- c. Increased quality comes from systematic analysis and improvement of work process.
- d. Quality improvement is a continuous process and conducted throughout the institutions.

Most universities can be characterized as organizations with a high degree of internal differentiation/heterogeneity; comparative standards can rarely claim general validity. Meeting accountability demands: Universities that want to claim (and prove) that they conform to the requirements for high-quality education, research and administration, can support such claims (and 'provide evidence') by formulating and implementing quality standards, thus making their quality efforts visible to the outside. Standards fulfilling such an accountability function ensure transparency and demonstrate what is being done in order to legitimate public trust (and financial support). Clearly, quality enhancement is the sum of many methods of institutional development, ranging from competitive hiring procedures, creating appropriate funding opportunities, to facilitating communication between disciplines and supporting innovative initiatives through institutional incentives.

A time has come for local universities to move away from localized mentality education to come together with the rest of the world like the University of Cambridge that adopted these standards among others long time ago. For many years, a form of standards in most of Kenyan universities has not been adopted and this has affected performance of these institutions of high learning. These standards create a framework for quality service delivery hence performance of the institution as a whole in relation to students and the institution's performance as a whole globally.

1.6 A Quality Management System (QMS)

Total Quality Management (TQM) refers to management methods used to enhance quality and productivity in organizations, particularly businesses. The different terms like strategic quality management, total quality improvement, and total quality leadership are parameters of showing the different emphasis placed on quality management (Sangeeta and Banwe, 2004). TQM is a comprehensive system approach that works horizontally across an organization, involving all departments and employees and extending backward and forward to include both suppliers and clients/customers (Barnard, 1999).

1.6.1 Erpsystem Enables Organizations and Higher Institutions of Learning to earn quality Management

According to, Sanja and Rabah (11 November 2013), In South Africa ERP systems are widely used to extract and process data from different functional areas across the enterprise. The ERP tools help to show the visibility of information across the enterprise and enable seamless access to information. The use of information technology and ERP systems has improved business operations.

The uptake of information technology tools such as the Internet, low cost telecommunications, and social networking media has increased over the years for both small and big business operators. When effectively installed and utilized, ERP systems serve to simplify business processes and give organizations a cost competitive edge by ensuring that the whole business value chain from raw materials inputs to final product is integrated, (Sanja and Rabah, Nov: 2013). The adoption of an ERP system, as an ample, integrated software solution of client-server type, accomplishes the management and distribution of information in all functional units, regardless of their location, sanja. ERP runs on a universal software platform, using a centralized data warehouse that is transacting information, on request, with many software applications. The success of ERP implementation in companies encouraged managers to hire this system, (sanja.2013)

A quality control system (QCS) refers to a system used to measure and control the quality of moving sheet processes on-line as in the paper produced by a paper machine. Generally, a control system is concerned

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with measurement and control of one or multiple properties in time in a single dimension. A QCS, on the other hand, is designed to continuously measure and control the material properties of the moving sheet in two dimensions: in the machine direction (MD) and the cross-machine direction (CD). The ultimate goal is maintaining a good and homogenous quality and meeting users' economic goals.

Because of quality management practices, known as Total Quality Management (TQM), different approaches have been adopted for the introduction of quality management in universities, such as self-assessment and external assessment of the institutions, accreditation and certification systems, and different models of TQM (Wiklund et al., 2003). Quality Management (QM) presents a strategic option and an integrated management philosophy for organizations, hence institutions, which allow them to reach their objectives effectively and efficiently, and to achieve sustainable competitive advantage (Goldberg and Cole, 2002).

Quality enhancement is the sum of many methods of institutional development, ranging from competitive hiring procedures, creating appropriate funding opportunities, to facilitating communication between disciplines and supporting innovative initiatives through institutional incentives, through the opportunities they offer to reflect and review curricula, to reform teaching methods (student-centered learning, continuous assessment, flexible learning paths) and even through strengthening horizontal communication and institutional transparency. At the same time, more and more systems saw the need for increased autonomy of higher education institutions to enable them to face the widening range of demands and accelerating pace of international research competition better. The introduction of institutional autonomy and the simultaneous cutting back of state control could only be realized, however, in conjunction with heightened accountability provisions. Hence, in many countries quality assurance agencies were either created or transformed to meet these new demands.

1.6.2 Quality is Achievable in Health sector by Erp System

ERP system in place eliminates duplication and manual processes and proactively. Increases patient safety with efficient and effective information systems, (Sanja, Dec 2013). According to Sanja, (Dec 2013) ERP systems can also be an instrument for transforming functional organizations into process oriented ones. When properly integrated, ERP supports process-oriented businesses effectively. ERP increases effective use in health services, reduces waiting time of patients at Emergency Department and service Work stations and provides better value for purchases at pharmacies by implementing ERP the organization improves the performance of existing business processes, reduces receivable days, credit returns and also improves the back end efficiency.

Therefore, special applications, such as patient management, patient logistics, hospital finance and general management, have been developed so that the ERP system fits with the hospital setting. There are number of reasons why hospitals differ from other industries and these may have implications for the implementation and use of an ERP in this setting, (SanjaM, Dec: 2013).

1.7 Quality Assurance (QA)

According to ENQA, (2007), Institutional quality assurance will be facing many challenges in the coming years: Education, research, knowledge transfer and services will have to become more connected in institutional development in general and quality assurance in particular. More meaningful and differentiated possibilities to benchmark and compare institutional performance internationally will have to be made available, well beyond the current reductive rankings. Improvement-oriented QA will have to defend itself against the rising gusto for labels, branding and the resurgence of control orientation, which even some Scandinavian QA agencies are beginning to observe in their environments.

The number of QA processes, which an institution has to undergo, will have to be reduced in some countries. Synergies between different types of QA will have to be developed, to reduce the administrative burden on institutions. Most importantly, it cannot be emphasized enough that the future of QA as a meaningful contribution to institutional improvement depends on the survival of the willingness of individuals to improve.

With the increasing routine of QA, universities and their supervisory bodies are running the risk of creating evaluation fatigue and even resentment of the disproportionate burden caused by QA, (ENQA, 2007). Wherever QA is perceived as keeping professors from their research and teaching rather than helping them achieve even better and more innovative results in teaching and research, it has capped its own lifeblood, (Vettori et al., 2007)

As well as providing a definition of quality, it is necessary to understand the difference between three other important quality ideas. These are the distinctions made between quality control, quality assurance and total quality. It refers to the detection and elimination of components or final products that are not up to standard. It is an after-the-event process concerned with detecting and rejecting defective items. As a method of ensuring quality it may involve a considerable amount of waste, scrap and reworking.

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

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assurance is a means of producing defect- and fault-free products. The aim in the words of Philip B Crosby is 'zero defects'. Quality assurance is about consistently meeting product specification or getting things right first time, every time. The quality of the good or service is assured by there being a system in place, known as a quality assurance (QA) system, that lays down exactly how production should take place and to what standards. Quality standards are maintained by following the procedures laid down in the QA system. Quality assurance is the responsibility of the workforce, usually working in quality circles or teams, rather than the inspector, although inspection can have a role to play in quality assurance.

1.8 Theories in This Study

1.8.1 Deming's Theory

Dr Edward Deming, stressed the importance of management's role, both at the individual and company level, in the delivery of quality. TQM is a statistical process control (Mahesh and Prabhuswamy 2010). TQM was originally developed by Edwards Deming after World War II to improve the quality of products and it was first introduced to the Japanese industrial leaders (Svensson and Klefsjo 2006). The Deming Theory of Management is based on a very humanistic philosophy. It begins with the belief that all people are educable, that they want to do a good job and they deserve respect. They are not born mean, but can be made so.

1.8.2 Crosby's Theory

Crosby's Theory (1980s) by Philip Crosby, also an American, is another quality guru that is credited with starting the TQM movement and got special recognition in the 1980s. He made the point much like Deming, that if you spend money on quality. Crosby, quality means "conformance to require- progress as the organization improves. (Crosby, 1979). Quality must defined in measurable and clearly stated terms to help the organization take action based on tangible targets, rather than on Deming theory does not define quality in a single phrase.

1.8.3 Ishikawa's Theory

Ishikawa's Theory (in the late 1800s) Dr. Kaoru Ishikawa is often known for his namesake diagram, but he also developed a theory of how companies should handle their quality improvement projects. According to Ishikawa, management should let employees self-regulate their own work and steer them in the direction where their efforts will make the most impact. This study, considers the lecturer to be well positioned to set his own standard i.e to set exams, prepare course outline, mark exams, publish articles, publish books to help students in research affairs.

1.8.4 Joseph Juran's Theory

Juran was an important contributor to the Japanese quality movement and a seminal figure in the evolution of quality management in the U.S. **Quality Trilogy:** Juran broke down the requirements for

successful TQM into 3 major activities: Quality Planning (Planning for higher Institutions, Quality controlling(selection for Standard marks, Subject cluster and course allocation), Quality Improvement(Service delivery improvement ,Updating the curriculum, Teaching methodology, Teaching Aid ,course description and Outlining the sequential steps to achieve breakthrough improvement , Juran's book, "Managerial Breakthrough" serves as the basis for Lean, Six Sigma and other important quality initiatives Joseph Juran's Theory (1950s) Joseph Juran is responsible for what has become known as the "Quality Trilogy , a theory developed in the early 1950s.

1.9 Permitting Comparability and Assessments in Higher Institution of Learning

Standards can be used for comparative purposes as well as for assessments within various contexts (e.g. providing evidence whether certain quality goals have been met or presenting a basis for accreditation procedures). In order to make such comparisons/assessments possible, standards should be defined quite clearly and allow easy verification whether they have been met (e.g. in the case of standard-based evaluations, cf. Stake, 2004).

On the other hand, this may cause some problems because standards fulfilling this function tend to be restricted to aspects that are easily measurable (e.g. number of publications as a measure for research quality or student satisfaction scales as measures of teaching quality), potentially overlooking aspects that might be at least equally important but are also more difficult to assess (cf. Lueger&Vettori, 2007).

On the downside, this leaning towards externally accepted success factors and best practices may very well lead to increased levels of standardization and homogenization within the higher education community. Strategies and activities that have proven useful elsewhere get adapted and copied (cf. the work of Powell and DiMaggio, 1991, on mimetic processes, normative pressures and coercion as mechanisms of institutional isomorphic change) without sufficient. Reflection on contextual factors and aspects of organizational culture, potentially leading to completely different outcomes.

Raising quality awareness and empowering quality promoters: Quality standards can also direct. The attention of institutional actors towards quality-relevant aspects of their daily work and interactions, thus encouraging them to consider these aspects in their actions and decision-making processes. Such process-oriented standards may unfold their full potential by supporting the development of localized, customized quality strategies, which pay attention to the diverging interests, quality notions and subcultures within a university – an argument, which we will further develop in our final section.

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1.10 ICT as an Improved Efficiency Tool for Education Delivery

According to Sanja .M. et al, (July 2014), ICT if implemented can help in the achievement of the Millennium Development Goals through three basic Processes: enhancing livelihoods, improved efficiency in the delivery of services (in primary schools), and allowing stakeholders (Board of governors, parents-Board) a voice in the planning process, such can be re. ICT advances brought about by the private sector can also complement initiatives undertaken by government or development cooperation agencies. Two factors will be vital in allowing these benefits to unfold: the development of capacity in ICT use; and the generation of suitable content, established not by the ICT sector but by the lead sector in question health, education, governance. Another factor that influences students 'learning is students 'capabilities at a particular age.

According to Sanja et al, (July 2014), Generally speaking, if we measure learning as the amount of information people can recall after learning has taken place, studies have shown that people can recall 20% of what they have heard, 30% of what they have seen, 50% of what they have experienced and nearly 90% of what they have heard, seen and experienced simultaneously. These percentages are certainly not rigid, as each individual has a learning style of his own. Based on this, he/she learns better by hearing (audio learners), by seeing (visual learners) or by doing (kinaesthetic learners). The advantage of teaching with multimedia technology is that it covers all the learning styles at the same time, as it combines text, sound and interactivity of the user with the program. This is considered as the main advantage of teaching with technology over the traditional method of instruction, (Sanja et al, July 2014).

With competence of technology, we can signify the stage at which Pupils learn how to utilize technological means. One of the most important concepts of the learning process at this stage is what Sanja et al ,July 2014 have defined as task grasp , that is the task that actually is regulating a learners behavior

2. LITERATURE REVIEW

2.1 Tools and Techniques Used To Measure Quality

Statistical Process Control (SPC): A process by which a product/service is checked during its creation using certain set parameters and statistical techniques to measure and analyze the variation within the process. It is used to; to monitor the consistency of product/service quality and maintain processes to a fixed target as designed.To drive improvement actions within an organization, Genichi Taguchi's theory of Quality loss; Quality is a predictable degree of uniformity and dependability, at low cost and suited to the market. Losses begin to accrue as soon as a quality characteristic of a product or service deviates from the nominal value. Once the specification limits are reached the loss suddenly becomes positive and constant, regardless of the

deviation from the nominal value beyond the specification limits.

2.2 Quality is Inevitable in Higher Institution of Learning

Quality has a variety of ambiguous and contradictory meanings. Much of the confusion over the meaning of quality arises because it can be used both as an absolute and as a relative concept. Quality in everyday conversation is used as an absolute—this is a thing of quality. The word quality comes from the Latin qualismeaning what kind of the quality of something can be said to be a part of its nature.

People use quality freely when describing expensive restaurants and luxury cars. Used as an absolute quality it is similar in nature to goodness, beauty and truth. It is an ideal with which there can be no compromise. As an absolute, things that exhibit quality are of the highest possible standard that cannot be surpassed. Quality products are things of perfection made with no expense spared. They are valuable and convey prestige to their owners. Quality cars, for example, are hand-built and expensive and have interiors of walnut and leather.

Rarity and expense are two of the features of quality in this definition. Quality in this sense is used to convey status and positional advantage, and the ownership of things of quality sets their owners apart from those who cannot afford them. Quality is a concept with class. It is synonymous with high quality or top quality. According to Pfeffer and Coote (1991) on the subject, 'most of us admire it, many of us want it, and few of us can have it'. Quality is achieved by putting systems and procedures into operation and ensuring that those systems are efficiently and effectively operated. It is the audit trail approach to quality.

This research considers today much quality work as concerned with finding appropriate evidence about the way particular activities within the institution have been carried out. The procedural concept is about proving that things have happened in accordance with predetermined specifications. It ensures that activities conform to requirements, although critics of the approach argue that it can stifle creativity and innovation.

2.3 Theories Applied To Quality Control, Quality Assurance and Total Quality Management

2.3.1 Ishikawa's Theory and Quality

Ishikawa's Theory (in the late 1800s) Dr. Kaoru Ishikawa is often known for his namesake diagram, but he also developed a theory of how companies should handle their quality improvement projects. According to Ishikawa, management should let employees self-regulate their own work and steer them in the direction where their efforts will make the most impact. This study, considers the lecturer to be well positioned to set his own standard.eto set exams, prepare course outline, mark

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exams, publish articles, publish books to help students in research affairs.

Management should also illuminate the areas where its employees are weak and encourage teams to pursue excellence in their tasks. Ishikawa was the prime mover of quality in Japan. He initiated many of the Japanese programs and was largely responsible for translating W. Edwards Deming and Joseph M. Juran's early lessons into a uniquely Japanese approach to quality improvement.

Ishikawa looks at quality from a human standpoint. He points out that there are seven basic tools for quality improvement. These tools are: - Pareto analysis, it helps to identify the big problems in a process; - Cause and effect diagrams, they help to get to the root cause of problems; - Stratification, it analyzes how the information that has been collected fits together; - Check sheets, they look at how often a problem occurs; - Histograms, they monitor variation; - Scatter Charts, they demonstrate relationships between a variety of factors; - Process control charts - A control chart helps to determine what variations to focus upon, according to Ishikawa Six principles; All employees should clearly understand the Objectives and business reasons behind the Introduction and promotion of companywide Quality control; The features of the quality system should be Clarified at all levels of the organization and Communicated in such a way that the people Have confidence in these features.

To understand the true meaning of Ishikawa is teaching about education, it is essential to recognize how he differentiated between educations and training. He believed training improves skills and competence, and education builds a person's character and develops a deeper level of understanding. Ishikawa put his ideas together into a systematic perspective of quality that is pervasive today: "Ninety percent of all problems can be solved by using the techniques of data stratification, histograms and control charts. Among the causes of nonconformance, only one-fifth or less is attributable to the workers." Education accelerates life experience and enables people to understand truth. Ishikawa taught that the next step in each work process is the customer, who deserves attention, and processes should be analyzed to uncover the facts and data about performance from the viewpoint of the customer.

Education creates understanding and a willingness to doubt because doubters have confidence in their ability to find the truth. If members of a management team provide education for their workers, the workers can collectively determine the best way to manage the work processes and produce the outcomes required by customers. Universal worker education in basic quality tools and methods is another legacy of Ishikawa we accept as a standard work practice.

The continuous improvement cycle should be continuously applied throughout the whole company for

at least three to five years to develop standardized work. Both statistical quality control and process analysis should be used, and upstream control for suppliers should be developed and effectively applied. The company should define a long-term quality plan and carry it out systematically. The walls between departments or functions should be broken down, and cross-functional management should be applied. Everyone should act with confidence, believing his or her work will bear fruit.

2.3.2 Crosby's Theory and Quality Management

Crosby's Theory (1980s) by Philip Crosby, also an American, is another quality guru that is credited with starting the TQM movement and got special recognition in the 1980s. He made the point much like Deming, that if you spend money on quality, it is money that is well spent. To Crosby, quality means "conformance to requirements as the organization improves." (Crosby, 1979). Quality must be defined in measurable and clearly stated terms to help the organization take action based on tangible targets, rather than on Deming theory does not define quality in a single phrase.

This study considers, Quality is at the top of most agendas and improving quality is probably the most important task facing any institution. However, despite its importance, many people find quality an enigmatic concept. It is perplexing to define and often difficult to measure. One person's idea of quality often conflicts with another and, as we are all too aware, no two experts ever come to the same conclusion when discussing what makes an excellent school, college or university

Crosby based on four absolutes of quality management and his own list of fourteen steps to quality improvement. Crosby's four absolutes are: quality as the adherence to requirements, Prevention as the best way to ensure quality, Zero Defects (mistakes) as the performance standard for quality and quality measured by the price of nonconformity. The fourteen steps to continuous quality improvement, for Crosby, are: Attain total commitment from management, Form a quality improvement team, Create metrics for each quality improvement activity, Determine cost of quality and show how improvement will contribute to gains, Train supervisors appropriately, Encourage employees to fix defects and keep issues logs, Create a zero-defects committee, Ensure that employees and supervisors understand the steps to quality.

Demonstrate your institution's commitment by holding a zero defects day, Goals are set on 30, 60, or 90 day schedule, Determine root causes of errors, remove them from processes, Create incentives programs for employees, Create a quality council and hold regular meetings, Repeat from step one. Hence this study often only recognizes the importance of quality when we experience the frustration and time wasting associated with its absence. Of one thing, we can be certain: quality is what makes the difference between things being

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excellent or run-of-the-mill. Increasingly, quality makes the difference between success and failure.

2.3.3 Deming's Theory and Quality Management

The Deming Theory of Management is based on a very humanistic philosophy. It begins with the belief that all people are educable, that they want to do a good job and they deserve respect. They are not born mean, but can be made so. The philosophy behind the Deming approach values the self-esteem of those who learn and those who teach. Any theory of education reflects the philosophy, either explicitly or implicitly, of the philosopher. Education is the means whereby adults pass on to children their beliefs, values and desires for the future. Whatever is done in education represents a philosophy and a system of values; our study regarding the good, the true and the beautiful?

The Deming Theory of Management goes beyond the historical views of management in specifically recognizing the impact of the system on the behavior of people. Deming often cites a rule he attributes to Juran: Deming began formulating his ideas in the 1930s while working on methods of removing variability and waste from industrial processes. He started work at Western Electric's legendary Hawthorne plant in Chicago, where Joseph Juran, another pioneering quality theorist and the other main US contributor to the Japanese quality revolution, was also employed. The Hawthorne plant at the time employed over 40,000 people manufacturing telephone equipment. It was made famous by Elton Mayo and his colleagues from Harvard University, who between 1927 and 1932 carried out their famous series of experiments on the causes of productivity changes.

Dr Edward Deming stressed the importance of management's role, both at the individual and company level, in the delivery of quality. According to him, 80-90% of quality problems were under management's control, emphasizing organization-wide cultural change and worker/management cooperation as the path to achieving high quality. Shewart's Learning and Improvement Cycle became popularized through Deming as the PDSA Cycle, as a methodology for pretesting and perfecting before implementation and for continual improvement. With the goal of reducing the difference between the customer requirement and process performance, Deming developed a number of theories. Deming's Theory (1950s-1990s) Deming quality teachings became popular from the 1950s when he visited Japan.

Deming stressed that the top management has higher responsibility for quality improvement than senior or middle level management. Deming advocated a never ending cycle, of product design, manufacture, test and sales followed by market survey and then redesign and so forth. He claimed that higher quality, leads to higher productivity, which in turn leads to long term competitive strength. His theory of Total Quality Management rests

upon fourteen points of management he identified, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). He is known for his ratio - Quality is equal to the result of work problem is that costs rise while quality deteriorates.

Deming's system of profound knowledge consists of the following four points: - System Appreciation - an understanding of the way that the company's processes and systems work; - Variation Knowledge - an understanding of the variation occurring and the causes of the variation; - Knowledge Theory - the understanding of what can be known; - Psychology Knowledge - the understanding of human nature. Efforts over the total costs.

In the UK, they have a Citizen known as Charter, the Business Excellence Model and the Investors in People standard, while the United States has the Malcolm Baldrige Award and the Japanese have the Deming Prize. These are just some of the more influential quality awards and standards that have been introduced in recent years to promote quality and excellence in a wide range of industries and services. This new consciousness of quality has now reached education; educational institutions are being required to develop their own approaches to quality, and need to demonstrate publicly that they too can deliver a consistent quality service.

By being aware of the different types of knowledge associated with an organization, then quality can be broached as a topic. Quality involves tweaking processes using knowledge. The fourteen points of Deming's theory of total quality management are as follows: Create constancy of purpose. The challenge to apply Deming's points to your companies, departments, and teams. Taken as a whole, the 14 points and the Seven Deadly Diseases is a guide to the importance of building quality into company processes and customer loyalty that will bring, reducing variation, and fostering constant continuous change and improvement throughout organizations.

Deming theory, however, encourages that staff should learn from one another, and the system should provide a culture and environment for effective teamwork. It should also allow people to perform at their best by ensuring that they're not afraid to express ideas or concerns. For SMEs it is the sole owner to think and implement.

2.3.4 Joseph Juran's Theory and Total Qualitymanagement

Juran was an important contributor to the Japanese quality movement and a seminal figure in the evolution of quality management in the U.S. In addition to creating the "Pareto principle" for identifying vital processes (80% of the return comes from 20% of the effort), he wrote the first reference work on quality management, the "Quality Control Handbook". The product of education is an area of difficulty. There are a number of different candidates for it. The pupil or the student is often spoken about as if they fulfill that role. In

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education we often talk as though learners are the output, especially with reference to the institution is perceived performance over discipline and behavior. Terms like 'the supply of graduates' make education sound like a production line with students emerging from the end of it. The problem with this definition is that it is difficult faculty to square it with much educational practice. For a product to be the subject of a quality assurance process the producer needs firstly to specify and control the source of supply. Juran describes quality from a customer viewpoint, where the degree of quality achieved is Proportional to the number of features that meet customers' needs, especially in design, availability, safety, conformance and use. Rather than just focusing on

the end customer, Juran believed that each person along the chain, from internal "customers" to the final user is both a supplier and a customer.

While Juran developed numerous quality theories, two concepts in particular serve as the basis for establishing a traditional quality system and to support strategic quality management. The quality trilogy is made up of quality planning, quality improvement, and quality control.

The Quality Trilogy



1. Quality Planning:

Quality Planning begins with identifying customers both external and internal, determining their needs and developing product features that respond to those needs. External and internal, determining their needs and developing product features that respond to those needs.

2. Quality Controlling:

Process involved with –determining what to control, establish units of measurement to evaluate data objectively establish standards of performance, measuring actual performance, interpreting the difference between actual performance and the standard and finally corrective action on the difference.

3. Quality Improvement:

Focuses on long-term goal seeking to achieve quality break through that move the firm to a new level of performance.

According to Naomi Pfeffer and Anna Coot, equality is difficult to define and is an elusive concept. Naomi Pfeffer and Anna Coote have even described it as 'a slippery concept' (1991). It is slippery because it has such a variety of meanings and the word implies different things to different people. While everyone is in favor of providing quality education, the arguments start when we attempt to define what quality means. It is necessary to have a clear understanding of the various meanings or there is a danger that it becomes a mere catchphrase, a word with high moral tone but little practical value.

2.4 Quality System Planning

This describes how an organisation will achieve its quality objectives. It describes the quality objectives and specifies the quality assurance and control activities to be performed in day to day company operations. At the company level it addresses development, maintenance and improvement of the overall quality management

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system.QM is generally described as a collective, interlinked system of quality management practices that is associated with organizational performance (Cua et al. (2001), and Kaynak (2003), underlined the importance of causal relations between quality management practices. There is a prevailing belief that higher education has entered a new environment in which quality plays an increasingly

The study will find out the obstacles facing Quality Assurance and Standards Officers (QASOs) in supervising implementation of primary school curriculum in Gatanga District. Before Gatanga became a district in 2009, it was one of the divisions within the larger Thika District. In 2008, Thika District was in position 74 nationally and last in Central Province in the Kenya Certificate of Primary Education examinations. Gatanga Division (now Gatanga District) held the last position in KCPE examinations of 2008.

According to, United Nations Educational, Scientific and Cultural Organization (UNESCO) (2000), many governments in developing countries allocated much of their resources to education after independence. This was in recognition of the fact that education was needed to foster national development. This resulted to considerable growth of educational activities world over. To date, according to UNESCO (2005), education is one of the largest sectors in most countries. Kenya is no exception to this trend of increasing allocation of resources towards education.

Each of the three sets concentrates on a different quality area. ISO 9001 is the most wide-ranging, for it specifies the various operating requirements in such areas as product design and development, production, installation, and servicing. ISO 9002 is concerned with quality assurance at the production and installation stages. ISO 9003 covers testing and inspections. As Karapetrovic, Rajamani, and Willborn noted, "if the minimum requirements are met [for the above operating areas], a registrar accredited by a national accreditation institution issues a certificate of compliance and the organization's quality system becomes ISO 9001, 9002, or 9003 registered."

The ISO 9000 quality standards are broken down into three model sets—ISO 9001, ISO 9002, and ISO 9003. Each of these models, noted Industrial Management contributors Stanislav Karapetrovic, Divakar Rajamani, and Walter Willborn, "stipulate a number of requirements on which an organization's quality system can be assessed by an external party (registrar)" in accordance with the ISO's quality system audits standard. "A quality system, "they added, "involves organizational structure, processes, and documented procedures constituted towards achieving quality objectives."

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as product design and development, production, installation, and servicing. ISO 9002 is concerned with quality assurance at the production and installation stages. ISO 9003 covers testing and inspections. As Karapetrovic, Rajamani, and Willborn noted, "if the minimum requirements are met [for the above operating areas], a registrar accredited by a national accreditation institution issues a certificate of compliance and the organization's quality system becomes ISO 9001, 9002, or 9003 registered." It is worth noting that certification is handed out for individual quality systems, not companies; this means that one company may hold more than one ISO 9000 registration. Moreover, Harvey R. Meyer pointed out in Nation's Business "the standards do not certify the quality of a product or service. Rather, they attest that a company has fully documented its quality-control processes and consistently adheres to them. If that's done, quality products and services generally follow."

2.5 Quality Assurance Models in Europe

The evaluation of teaching competence has reinforced the quality culture in Catalan universities, especially with staff involved in developing internal quality assurance. Particular note is made of the use of several types of complementary evidence for assessment validity (teacher portfolios, surveys, reports by academic managers). One of the main criticisms, however, is the associated bureaucratic process for teachers; in some universities, they are required to provide information about teaching activity that should be available in university databases. Improvements have been made to computer applications as a result, although there are still areas in need of further improvement.

The potential number of teachers in a position to apply for assessment (i.e. that have completed at least five years of teaching) is given for each year, together with the number of actual applicants, and the positive and negative results. Recent quality assurance developments in European higher education and training have largely been driven by the Bologna Declaration. In the Irish context there have been numerous developments within the Irish State that have had an influence on the provision of higher education ensuring that quality is a key pillar within the process of education and training in Ireland.

Under the Qualifications (Education and Training) Act 1999, three new organizations were established in 2001 – the National Qualifications Authority of Ireland and two new awards Councils, the Further Education and Training Awards Council (FETAC) and the Higher Education and Training Awards Council (HETAC). The Qualifications Act (1999) required that HETAC (Higher Education & Training Awards Council) ensure that all higher education providers have: An acceptable system of quality assurance in higher education and training (which) rests on three pillars: Self-evaluation, External review, Information to and from stakeholders. A weakness in any of the three pillars threatens the stability of the structure.

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A further development in the assessment landscape has been the introduction of a new Framework of National Qualifications (NFQ) by the National Qualifications Authority of Ireland (NQAI). The main task of the National Qualifications Authority of Ireland has been to develop a national framework of qualifications. The National Framework of Qualifications is defined as:

The principal legislation underpinning quality assurance in education and training in Ireland is the Qualifications (Education and Training) Act 1999 and the Universities Act 1997. The framework should bring an increased clarity to the meaning of each type of qualification allowing qualifications to be compared easily. The new Framework of Qualifications will help add clarity and transparency within the Irish education system.

Accreditation of engineering educational programmes as entry route to the engineering profession has proved to be a powerful tool to improve both academic quality and relevance for the job market. Indeed, the word “accreditation”, used in the United States since the 1930s, did not find its way into European specialized literature and official documents until recently: however, historically, Europe has been in the forefront. Within Continental Europe, formal accreditation (“habilitation”) started in France: a 1934 law established the Commission des Titres d’Ingénieur (CTI), in which not only academia but also employers and social stakeholders are represented on a parity basis: only graduates from an accredited programme can use the title of “ingénieurdiplômé”; at present, about 700 engineering programmes are accredited in the French Engineering schools.

In the UK, a similar role has been played since the 19th century by the professional institutions of the different engineering disciplines (branches): hence, accreditation was (and is) distinguished by discipline. In 1981, the overarching Engineering Council UK (ECUK) was established to coordinate and maintain the standards of the accreditation process. Thus, although there is no formal obligation in France nor in the UK to register in order to practice as a professional engineer, in both countries the established standards provide a strong incentive for the accreditation of engineering degree programmes.

Engineering accreditation in UK and France is dealt with in detail in Part 2 of the full EQAF paper (Augustiet al., 2007); the situation in other countries is very varied as can be seen in other papers (e.g. Augusti2005, Augusti 2006). For example in Germany, up to a few years ago all higher education programmes had to conform to strict (State or Federal) rules, which made accreditation superfluous. “Bachelor” and “Master” programmes, introduced in the 1990s, are gradually replacing the old programmes: formal accreditation has

been prescribed for these, and a great number of programmes have been already accredited, especially in engineering.

3. RECOMMENDATIONS

- a. The university should create awareness to fight the negative attitude of its employees towards the implementation of ISO standards.
- b. The university should channel more funds towards the full implementation of ISO standards.
- c. The university should take into consideration the plight of the physically challenged when implementing ISO standards.
- d. A total audit of the implementation of the ISO standards should be carried out regularly and independent not from within the university.

4. CONCLUSION

Based on the research the study will determine that investing in ISO is very important to higher learning institutions. This is because ISO has a positive effect on quality of standards on the efficiency and result oriented, enhancing management integrity and accountability, provision of clear records among other factors. ISO improves standards of learning institutions, which will in turn enhance efficiency and effectiveness.

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