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Strategies used to address systemic barriers to ISO compliance in MOI University, Kenya

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Abstract
International standards organization (ISO) plays an important role in developing standards for both quality management and environmental management. The study examined the strategies that Moi University used to address systemic barriers to *ISO* compliance. The study was guided by Scientific Management Theory as well as Contingency Theory. The study was both qualitative and quantitative in nature. Data were collected by means of semi structured questionnaires supplemented by interview schedule guides. The target population for the study was 1,343 officers drawn from the various systems of the institution. Stratified random and purposive sampling techniques were employed in selecting respondents. The sample size was computed as 404 officers who constituted 30% of the target population. This included top management, Directors, Deans, Heads of Department, lecturers and administrative staff. Cumulative frequencies, percentages means and standard deviation were computed to help derive meaning from quantitative data. Qualitative data from interview schedule guide were transcribed, thematically classified and arranged before being reported in narrations and quotations. Findings were presented in form of tables, charts and graphs. From the findings of the study, it emerged that MOI University has put in place numerous measures to minimize and eradicate barriers to compliance with the ISO requirements. Among the major strategies the University has adopted include: following through on students' progress, promoting employee engagement, management commitment to ISO implementation, regular review and follow-up on implementation, regular inspection and audits, clear communication about objectives and rationale behind ISO implementation efforts, and holding of regular consultative meetings. The University's top management needs to ensure that innovative approaches, besides the ones mentioned above, are put in place in its various organs to counter the effect of the barriers towards efficient implementation of the QMS.

Keywords: strategies, address systemic barriers, ISO compliance, Moi University, Kenya

Introduction
ISO is an abbreviation for International Organization for Standardization. The word ISO has its origin in Greek word "*ISO*" meaning *equal* (summers, 2014). ISO emerged out of wartime standardization efforts among the Western Allied powers and an interwar, largely European, international standardization body. It was established as an international non-governmental organization in 1946 by representatives of standardization bodies from the Allied powers and occupied Europe, along with several other friendly or neutral countries (ISO, 1997; Yates & Murphy, 2006) [25]. Having realized the importance of standardization to the Allied war effort, ISO's promoters now saw it as critical to post-war economic recovery (Reed, 2012) [17].

Murphy and Yates (2009) [13] identified three periods in ISO's history. In the first period (1947-64), ISO remained largely a European organization and effectively completed its basic programme of standardizing industrial terminology, measurement, materials and testing, and solving 'nuts and bolts' problems of mechanical compatibility. In the second period (1964-86), its emphasis shifted from harmonizing duplicative national standards to developing independent global standards as economic globalization began to take off. It became an integral part of the world trading system in 1979 when the World Trade Organization (WTO) General Agreement on Tariffs and Trade (GATT) standards code was adopted requiring member countries to use international standards as the basis for their technical regulations. Its standards grew exponentially in umber, playing a key role in standardizing the infrastructure of the global economy, especially in such areas as containerizing the infrastructure of the global economy, especially in such areas as containerized shipping. It gained the de facto monopoly it still enjoys over most domains of international standardization (Reed, 2012) [17].

The most recent period (1987-present) began with the publication of ISO 9001 Quality Management System (QMS) standard. This marked a departure from development of technical standards for discrete products and processes, to creation of generic standards for organizational management. The trend intensified in 1993 with the creation of ISO Technical Committee 207, responsible for the ISO 14000 series of environmental management standards. This signalled ISO's unequivocal entry into the global public domain, even if its activity was still often cloaked in the guise of neutral technical expertise (Wood, 2005) [24].

ISO 9001 and 14001 became ISO's highest profile standards, launching massive cottage industries in management system consulting and certification (Reed, 2012) [17]. ISO has since ventured into other generic management fields such as risk,

food safety, road traffic safety, information security and sustainable events. ISO's most controversial project to date was the ISO 26000 guide on social responsibility, published in 2010. It employed a multi-stakeholder process that brought into sharp relief the challenges faced by ISO in asserting its authority in the social and environmental realm.

Several recent studies illustrate how different types of workers are required to put standards into practice. In addition to the work that people do to create and implement standards, managers and executives have used increasingly sophisticated techniques to standardize and rationalize practices in the workplace. The professionalization of engineering in the nineteenth and twentieth centuries provided avenues for industry standardization activities. If an engineer wanted to be considered professional, he or she needed to become a member of a professional body. Other professions such as Accountancy, Human Resource Management, Law and Psychology have also come up with professional bodies for that purpose. In addition to setting standard practices, professional bodies also regulate moral and ethical practices of its members.

ISO stands today at a crossroads, in danger of alienating its core constituency of transnational industry and technical experts while failing to satisfy the demands of newer audiences such as environmental, human rights, and labour agencies and activists. ISO's relationship with development and developing countries plays an important role in this unfolding drama (Reed, 2012) [17].

Due to different standards existing in various countries, a need was felt to have one unified standard to facilitate international trade. This was the first organizational standard in quality management system containing the terminology as well as content for international trade. ISO 9000 standards had great impact in international trade and quality systems implementation by organizations worldwide. The standard has been adopted as national standard by more than 118 countries. This is applied through a wide range of industry, economic service and government regulatory areas. The ISO 9000 standard deals with the management system set by organization to design, produce, deliver and support their products or services.

The ISO 9001 standard was developed to yield consistent processes and satisfied customers. West, Hunt, Croft and Jarvis (2012) [22] indicate that the International Organization for Standardization (ISO) was created in Geneva in 1947 to provide standardization of technical specifications for products traded in the international marketplace. ISO is the world's largest developer of standards. ISO's principal activity is the development of international standards (Charantimath, 2011). ISO 9000 standards were issued in 1987 and represent requirements for the development and implementation of a quality management system in an organization. The ISO 9000 family of standards represent an international consensus on good quality management practices. It consists of standards and guidelines relating to Quality Management Systems (QMS) and related supporting standards.

The ISO 9000 standards were revised in 1994. The revised and updated version was introduced in 2000. The latest version is ISO 9001:2008 and is comprised of three standards: ISO 9000:2005, ISO 9001:2008 and ISO 9004:2009. The QMS of the ISO 9000 series are based on eight quality management principles: customer focus, leadership, involvement of people, process approach, systems approach to management, continual improvement, factual approach to decision making and mutually beneficial supplier relationships (Charantimath, 2011).

Background to Quality Management System (QMS)

A Quality Management System (QMS) is a set of management tools and principles designed to create the administrative procedures that an organization needs to integrate quality concerns into its daily business practices. This is a strategic decision that every organization should adopt to give it a competitive edge in the market place. Implementation of the QMS results in improved overall quality performance. It also helps the organization to relate its quality objectives with its business objectives as customers continue to be very demanding in regards to quality of products and services provided (KEBS, 2010).

The purpose of the quality management system is to enhance customer satisfaction through effective application of system. The entire organization should be customer-oriented, continuously assessing the customer's stated and implied needs. Based on this feedback the organization is generating the products and services leading to continual customer satisfaction. The quality management system also includes processes for continual improvement. QMS also results in maximization of return on investment along with the total employee involvement.

According to Khanna (2015) [12], most companies in the world today want to do business with companies and organizations that have ISO 9000 certification. The certification ensures that the company irrespective of language barriers, cultural and social differences, and technological variations has a quality system that meets uniform standards.

There are several definitions of quality. Juran and Gryna (1988) [11] defines quality as fitness for purpose and this is more strategic in nature in that it refers to the mission of the organisation. According to Juran and Gryna (1988) [11], quality means fitness for use. The end user does not always know the specifications of the product or service involved and therefore judges it on its fitness for use. The fitness of use of an institution is articulated in the mission, goals and objectives in response to the local, national and international contexts. For example, a learning programme or activity is of high quality if it is demonstrably relevant, desirable or feasible for those who are intended to benefit from it.

Quality is about adding value to individual, local and national capability. In some cases, the higher education institution can determine its own purpose, free of external requirements. In other cases, there are certain non-negotiable national development requirements according to which it must determine its mission. Defining quality in higher education has proved to be a challenging task.

Cheng and Tam (2013) [3] suggest that education quality is a rather vague and controversial concept while Pounder (2013) [16] argues that quality is a "notoriously ambiguous term". As a result of the difficulty in defining quality, the measurement of quality has also proved to be contentious. There have been

various attempts to draw on industry models such as the quality dimensions of Gronroos, Garvin and Parasuraman (Owlia & Aspinwall, 1996), SERVQUAL (Aldridge & Rowley, 1998) [1], importance performance analysis (Ford *et al.*, 1999) [8] and the balanced scorecard (Cullen *et al.*, 2003) [5] to develop quality assessment models for higher education. Internationally, the tool most frequently drawn upon is that of total quality management (TQM) defined as "… a management approach of an organization, centred on quality, based on the participation of all its members and aiming at long run success through customer satisfaction and benefits to all members of the organization and to society" (Wiklund, Klefsjo, Wiklund & Edvardsson, 2013, p. 67) [23].

The rationale for adoption is that Quality Management has the potential to encompass the quality perspectives of both external and internal stakeholders in an integrated manner and thereby enable a comprehensive approach to quality management that will assure quality as well as facilitate change and innovation. However, there have been a number of limitations identified in the wholesale adoption of Quality Management in higher education. Roffe (2011) [18] suggested that while there are few quality indicators in industry, these are more numerous and complex in higher education and are therefore more difficult to assess. It has even been purported that the practice of Quality Management in higher education is deteriorating into managerialism because of the disparity between Quality Management techniques and educational processes, as well as the lack of shared vision within institutions or educational fields (Srikanthan & Dalrymple, 2013) [20]. As a result of this debate, Hewitt and Clayton (1999) recommend that a model of educational quality that is different from, but capable of being related to commercial models is beginning to emerge.

Srikanthan and Dalrymple (2014) [19] suggest that a fresh view is necessary of quality in higher education. A starting point for this process is arguably a comprehensive assessment of current practices to determine the extent to which different meanings of quality and different stakeholder perspectives are taken into account. Drawing on relevant literature from both education and industry, a new framework for a quality audit tool has therefore been developed in order to assess current quality management approaches within higher education.

According to Lewis and Smith (2014), the perception of "quality of education" by many academics is increasingly becoming a problem for many outside the system. Unhappy customers and low employee morale are also mentioned as major challenges in universities (Coate, 2013) [4]. Engelkemeyer (2013) [6] categorized the shortcomings of present higher education systems as poor teaching, anachronistic programmes, incoherent curricula, excessive costs and growing and inefficient administrative bureaucracies. Quality Management is seen by many as having enormous potential to respond to the challenges. It can be applied as a means for improving student/staff morale, increasing productivity, and delivering higher quality services to both internal and external customers (Coate, 2013) [4]. Difficulties in defining customer requirements, while there is a variety of stakeholders (students, parents, employers, faculty members, government, and general society) having different interests, adds to the complexity.

This characteristic of a higher education system, however, cannot overshadow the need for an operational definition of quality, one that provides a way for improvement. An important point which can be observed is the presence of a strong link between quality and market issues; higher quality can be gained through attracting more capable students and hiring higher quality staff, as well as absorbing more industrial grants which are all market related. This proposes the possible adoption of commercially based approaches such as QM in a service industry sector such as institutions of higher learning.

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, 2012) [21].

Different Versions of ISO 9001

Four different versions of ISO 9001 have been published by ISO until now. The 1987 version of the ISO 9000 series of standards included three standards for quality assurance: ISO 9001, ISO 9002 and ISO 9003. ISO 9001:1987 is the model for quality assurance in design, development, production, installation and servicing. ISO 9002:1987 is the model for quality assurance in production, installation and servicing. It is almost entirely identical to ISO 9001:1987 but it does not cover the creation of new products. ISO 9003:1987 is the model for quality assurance in only final inspection and testing. The second version of the ISO 9000 series was released in 1994. It stressed the importance of preventive actions. The third version combines ISO 9001, 9002 and 9003 into one standard, ISO 9001:2000. In this version a broader concept of quality management has been introduced.

Improving customer satisfaction has become one of the performance measurements. Additionally, it puts more emphasis on the process approach and on active involvement of management. ISO 9001:2008, the last version, is basically the same as the previous one. It aims to explain the existing requirements in a clearer way. In 2015, ISO is planning to release a new version of ISO 9001. The 2015 version focuses on the identification of risk and risk control. Moreover, it requires top management to take a more active role in aligning quality policies with business needs (ISO, 2014d) [10].

Introduction to ISO 9001:2008

ISO 9001:2008 promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a quality management system, to meet customer requirements and enhance customer satisfaction. A "process" can be defined as a "set of interrelated or interacting activities, which transforms inputs into outputs" (ISO, 2008a, p. 3) [10]. Organizations need to identify and manage numerous linked processes to function effectively. The output of one process often forms the input of another process. "Process approach" is the "application of a system of processes within an organization, together with the identification and interactions of these processes, and their management to

produce the desired outcome" (ISO, 2008b, p. v). ISO 9001 aims to encourage the adoption of a process approach.

The process approach helps organizations to control the linkages between processes and the interfaces between the functional hierarchies of the organization. This approach emphasizes the importance of (ISO, 2008b, p. v-vi): understanding and meeting requirements, the need to consider processes in terms of added value, obtaining results of process performance and effectiveness, and continual improvement of processes based on objective measurement. Each process has customers and other interested parties, either external or internal, that have needs and expectations of the process. These interested parties provide inputs for the organization and define the expected outputs of the process. The organization should then gather data about process performance, in particular about the satisfaction of interested parties (in the case of ISO 9001: the customers). These data should be analysed to decide if there is any need for corrective action or improvement. These activities require allocation of resources like materials and people. Inputs and outputs can be tangible (such as equipment or materials) or intangible (such as energy or information). The organization should make sure that all the processes are adding value to the organization and their objectives and scopes are well aligned. Effectiveness and efficiency of processes can be evaluated through internal or external reviews (ISO, 2008a).

Requirements of ISO 9001:2008

All requirements of ISO 9001:2008 are intended to be applicable to all organizations, regardless of their type, size and products. ISO 9001:2008 specifies requirements for a quality management system where an organization needs to (ISO, 2008b, p. 1): demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

Clauses 4 to 8 of ISO 9001:2008 describe the requirements. Clause 4 indicates the general requirement for the quality management system. It requires organizations to establish, document, implement and maintain a quality management system and continually improve its effectiveness. Moreover, it requires organizations to have documented statements of a quality policy and quality objectives, a quality manual, documented procedures and records of some processes to ensure the effective planning, operation and control of processes.

Clause 5 describes requirements on management responsibility. It requires top management to provide evidence of their commitment to the development and implementation of the quality management system and to continual improvement of its effectiveness. Top management should make sure that customer requirements are determined and met to increase customer satisfaction. Top management is also responsible for the quality policy. Moreover, top management should make sure that measurable quality objectives are defined at relevant functions and levels within the organization. Furthermore, top management should ensure that responsibilities and authorities are determined and communicated.

Finally, top management should review the quality management system at planned intervals. Clause 6 states requirements on resource management. It requires organizations to identify and provide resources to implement and sustain the quality management system and continually improve its effectiveness, and to increase customer satisfaction. Clause 7 describes requirements on product realization. It requires organizations to plan and develop the processes needed for product realization.

Organizations should identify and review requirements related to the product. Organizations should also identify and implement effective arrangements for communicating with customers. They should plan and control the design and development of products. Moreover, organizations should make sure that purchased products conform to purchase requirements. Organizations should evaluate suppliers and select suppliers based on these evaluations. Finally, organizations should monitor and measure equipment that is used to measure the conformity of product. Clause 8 lists requirements on measurement, analysis and improvement. Organizations should measure customer satisfaction, quality management system processes, and characteristics of the product to make sure that the product requirements have been met. Organizations should conduct internal audits at planned intervals. Organizations should make sure that nonconforming products are identified and controlled, and not delivered to customers. Organizations should determine, collect and analyse appropriate data to identify improvement opportunities. Finally, organizations should continually improve the effectiveness of the quality management system.

Statement of the Problem

The service industry in Kenya remains the most important sector of the economy both in terms of GDP and job creation. It has been the fastest growing sector in Kenya since the 1980s. The most important sectors in the service industry in Kenya over the years have been tourism, transport, travel, communications, insurance and education. Moi University falls under the education sector of the service industry in Kenya. The service industry was chosen for the study because of its significant contribution to Kenya's economy. The industry provides crucial inputs for the rest of the economy, thus having a significant effect on the overall investment climate, which is an essential determinant of growth and development. It also contributes directly to achieving social development objectives.

The speed at which the University has expanded coupled with the double intake of students has overstretched its resources in terms of human capital, finance and infrastructure. Centralized systems such as Examinations, Estates and Finance have to provide services that accommodate the new demands. This situation often causes delays in service delivery. Cases of misplaced documents such as letters, memos, imprests and medical claims are quite common. Lecturers have to traverse the country to offer teaching services in satellite campuses in addition to offering part time teaching often resulting in delayed or missing marks. Overcrowded classrooms are fertile grounds for examination cheating.

These challenges combined with poor sanitation, lighting, repairs and grounds become barriers to quality service delivery. There is need therefore to assess how this rapid expansion has affected the quality of services offered by the various University systems to their customers. One of the fourteen principals for quality management according to Deming is to break down barriers between departments. However, he failed to substantiate how this can be achieved. Consequently, there is need to establish the best methods of breaking down barriers between the various systems of the University. Deming proposed that employees in all organizational functions must work together as a team to foresee and solve problems of production. Therefore, it would be necessary to break down any barrier between all systems in the University in order to achieve University quality objectives for continued *ISO* certification and to remain as the University of Choice in the region.

Materials and methods

The study adopted mixed methods and applied a descriptive survey research designs. In the study, the population consisted of academic, administrative, and clerical officers of Moi University, Main Campus. These categories were chosen because they actively participate in service delivery and ISO audits hence determining the status of ISO certification in the Institution. To determine inter-campus barriers to ISO compliance, top officials of the town campuses formed part of the population for this study. The target population for this study was 1,343 senior employees of Moi University in Academic and Administrative sections. Those from the Academic Division comprised 16 Deans, 8 Directors, 43 Heads of Departments, 549 Academic Staff, 94 Administrative Staff, 75 Secretarial Staff and 44 Clerical Staff. Those from the Central Administration composed of 93 from the Vice Chancellor's office, 163 from the office of the Deputy Vice Chancellor for Administration, Planning and Development, 79 from the office of the Deputy Vice Chancellor for Finance, 50 from the office of the Deputy Vice Chancellor for Students' Affairs, and 129 from the office of the Deputy Vice Chancellor for Academics, Research and Extension.

Stratified random sampling technique was used to identify subgroups in the population and proportions selected from each sub-group to form a sample. Simple random sampling was then used to select the respondents. Purposive sampling was used to select categories of staff to study lived experiences of a specific population. Top management staff members at the Main Campus as well as those in town campuses were selected purposively. Thus from the target population, a sample of 30% (403) was computed and from each sub-group, proportionate samples drawn. This comprised of 185 staff members from the Academic division and 218 from the Central Administration section.

Questionnaire and interview schedule guide were the tools used to collect data for this study. The questionnaire tool was administered to the middle and junior staff members while interviews were conducted with the senior staff members or their representatives. Both descriptive and inferential statistics were used in data analysis. Cumulative frequencies, percentages, means and standard deviation were computed to help derive meaning from quantitative data. Qualitative data from interview schedule guide were transcribed, thematically classified and arranged before being reported in narrations and quotations. Further, the themes emerging from secondary data were identified to augment primary data. The researcher used data condensation mode of analysis to extract, abridge or abstract the most important themes from data collected from the interviews. Themes were identified and organized into coherent categories that summarized and brought meaning to the data. The researcher interrogated the themes in light of the objectives of the study and upheld to the definition of the natural meaning units as stated in the reviewed literature.

Results and Discussion

Strategies to Address Systemic Barriers to ISO Compliance

The study sought to establish how systemic barriers to ISO compliance were being addressed by departments, schools and campuses of Moi University. One of the key attempts to address the systemic barriers to ISO compliance was hinged on customer needs. Majority of the respondents (97.4%; 375) indicated that they were taking customer (students) needs seriously by following through on their academic progress and particularly the postgraduate students. This, according to the respondents, was aimed at ensuring that students clear their respective degree course within the stipulated academic calendar. Respondents (55.6%, 214) affirmed that the respective departments, schools and campuses were struggling to provide education and training on ISO standards as well as compliance regulations. Further, 300(77.9%) respondents did indicate that their respective departments, schools and campuses were increasingly involving them in matters pertaining to policy implementation and general administration. A total of 249(64.7%) respondents also affirmed that there was increasing commitment on the part of management to ensure that the quality management system is implemented as buttressed by one of the academic staff members:

> …the management is committed in ensuring that the quality standards are implemented despite the barriers… there is goodwill and I know the University will soon fully comply with the quality management system regulations.

Table 1 presents a summary of the measures being taken by departments, schools and campuses to ensure compliance to ISO standards.

Table 1: Measures for Addressing Systemic Barriers to ISO Compliance

Measure	F	%	Rank
Following through on students' progress	375	97.4	**1**
Employee involvement	300	77.9	**2**
Improving management-employee relationship	237	61.6	**7**
Management commitment to ISO implementation	249	64.7	**5**
Well-defined roles and responsibilities	198	51.4	**10**
Clearly defined goals and objectives	201	54.5	**9**
Regular review and follow up of implementation	297	77.1	**3**
Regular inspection and audits	268	69.6	**4**
Clear communication about objectives and rationale behind ISO implementation efforts	243	63.1	**6**

Regular meetings	237	61.6	**7**
Education and training	214	55.6	**8**

From the findings presented in Table 1, it can be observed that there are measures being put in place by departments, schools and campuses of Moi University to ensure that systemic barriers to ISO compliance are addressed. Notable measures in terms of rank are following through on students' progress, employee involvement, regular review and follow up of implementation of ISO standard and regular inspection and audits. Buttressing this finding is Nield and Kozak (2014) [14] who argue that customer needs is a major factor to be considered during ISO implementation and that capturing customer needs should be examined in pursuit of establishing the way organizations attend to the regulations of ISO 9001.

It follows from the commitment by the University organs to address the systemic barriers that there is a realization that the ISO set of standards are important mechanisms to allow the University to inform their customers and competitors that they have implemented an externally-accepted quality system in addition to enabling the University to increase conformity and efficiency in its operations.

Further concurring with the findings of this study is a study by Ewell (2013) [7] who found that organizations should invest in research and development in order to continuously identify the needs of customers and to strategize ways in which this needs could be met. Owlia and Aspinwall (1996) further agree by indicating that ISO implementation should be used to provide introductory training to all employees regarding what a quality management system is and what their individual roles are. They add that top management can use this as the starting point for developing the quality policy and that teams can use this standard when designing or modifying the quality management system.

Potential Solutions to Systemic Barriers to ISO Compliance

The last objective of this study entailed suggesting potential solutions to systemic barriers to ISO compliance at Moi University. Basing on the responses of participants in this study, the following are considered solutions to systemic barriers to ISO compliance at Moi University.

Communication and Review in Quality Management

Majority of respondents (98.7%; 379) suggested that the University should ensure that employees are informed about the relevance and importance of their activities and how they contribute to the achievement of the quality objectives. A respondent from the administration opined that:

> ….the University should plan (define the sequence) the processes and sub-processes it needs for product realization (to have in place to produce its product or provide its academic services), identify; determine and provide competent personnel to perform work affecting quality….

Respondents also suggested that the University should clearly communicate information regarding, contracts or order hauling, including amendments and consider customer feedbacks including customer complaints which should be handled as soon as they are raised.

Employee Involvement

Majority of respondents (98.9%; 381) indicated that employees' involvement in the quality management system will encourage compliance and ownership. They asserted that QMS is a process that only requires a collective effort from everyone within the stipulated organization and is therefore crucial for employees to be involved in the early stages of the system programme.

Commenting on the issue of employee involvement, a respondent from the academic section averred that:

> Most of organizations are faced with competitive demands for lower costs, higher performance and greater flexibility. As a result, they are increasingly turning to employees' involvement to enhance the participation, commitment and productivity of their members. Employee involvement to any programme can lead to quicker and more responsive decisions on continuous performance improvement… Moi University is no exception….

Management Commitment and Goodwill

The commitment and goodwill of the top management was considered another potential solution to systemic barriers to ISO compliance in Moi University. Respondents indicated that top management commitment is the most crucial factor for the success of QMS and its lack is the most often cited pitfall. Without a positive commitment any strategy for change is likely to fail and so is quality management system.

A respondent from the secretarial section, while responding to the importance of top management involvement and commitment indicated that:

> A key challenge for leaders is to effectively manage the relationship between the organization's Vision/ Mission statements/ Strategies and Values. Together, the Mission and Vision statements give direction to an organization and function as a compass or road map, leading to better performance. To achieve these goals, top management is assumed to be actively involved in establishing and communicating the organization's vision, goals, plans, and values for its quality program. A successful organization requires more than just sound business strategy; it requires a quality culture to support the strategy. Therefore, top management needs to anticipate change and make plans to accommodate it- this is what I consider the greatest breakthrough to implementing ISO standard at the University.

Providing Requisite Resources

From the findings of this study, the researcher proposes that the provision of required resources will be significant in ensuring that quality management system is fully implemented. Resources play a key role in implementation of quality management system. The system may be well designed, its kick-off may delay or completely fail if the resources are not available or are defective, poorly calibrated or outdated. This argument is particularly correct if a quality manager has little expertise, it is a dream to expect quality from such an individual.

A respondent drawn from the administrative section made the following contribution:

> ….the complexity and the far-reaching scope of QMS, resources need to allocated to enable all sectors of the University to participate in this endeavour. I believe that the first priority is the training of key management and staff personnel who become the in-house QMS facilitators. The initial commitment of resources is to provide such training, as well as to allocate specific time to monitor QMS projects. The in-house QMS facilitators will then be able to provide guidance to others in various programmes through a series of implementation steps that are in line with the priorities of the organization. The facilitators also need to monitor the skills of employees in their knowledge and use of quality tools to ensure that just-in-time this is provided as the need arises.

This aspect opined by the administrator is important to avoid frustration of dealing with unfamiliar situations and a subsequent decrease in enthusiasm of implementing projects. Another respondent drawn from the academic section indicated that:

> A significant resource factor to be considered in the implementation of QMS is to ensure good working conditions of required equipment and machines. Issues such as use of old, unreliable machinery and poor co-ordination of equipment span result in ineffective maintenance programs which in turn render processes inefficient. This issue must be addressed if the University is to achieve full implementation of ISO standard.

Changing the non-Receptive Organizational Culture to ISO 9001:2008 Standard

It was established that there was a general non-receptive culture to ISO: 2008 standard subsequently hampering its implementation. Some respondents exhibited resistance to the system for unknown fear. An administrative officer provided an advice in the responses as follows:

> ….it should be understood by employees that organizational improvement is never an ending journey but one that is centred on the concept of starting each day a new with the principle that methods can always be improved. For effectiveness, the improvement should always involve everyone from top managers to workers. The model is said to recognize that management must seek to focus on its customers' needs for customers to be treated well so will the employees who directly interact with them.

ISO 9001:2008 stipulates clearly in one of the clauses that the adoption of a QMS is a strategic decision of an organization. The design and implementation of an organization QMS is influenced by its size and organization structure keeping in

mind the services it renders The QMS requirements that are specified in the international standards are seen to be complimentary to the requirements of product and can be used by either internal or external parties including certification bodies to assess the organizations' ability to meet its employee's statutory and regulatory requirements.

Supporting the need to have a paradigm shift towards ensuring that QMS is implemented effectively, one of the respondents drawn from the academic section indicated that:

> The success and problems found in the implementation and maintenance of the QMS in a service organization is that the top management, the employees, the reward system, the measurement of performance and communication has to be in a proper place irrespective of the continuous changes in the QMS itself. Since it is an organization's willingness to be ISO certified, the organization and its management should embrace a positive attitude towards the ISO certificate and so should its employees…

Conclusion and Recommendations

Moi University has put in place numerous measures to minimize and eradicate barriers to compliance with the ISO requirements. Among the major strategies the University has adopted include: following through on students' progress, promoting employee engagement, management commitment to ISO implementation, regular review and follow-up on implementation, regular inspection and audits, clear communication about objectives and rationale behind ISO implementation efforts, and holding of regular consultative meetings. The University's top management needs to ensure that innovative approaches, besides the ones mentioned above, are put in place in its various organs to counter the effect of the barriers towards efficient implementation of the QMS. Staff promotions and rewards for exemplary performance should be continuously evaluated on merit and not based on other attributes which are not in tandem with the provisions of ISO 9001:2008 standards. There is need for fast-tracking timely provision of required materials besides ensuring that resources are modernized by replacing those that are out-dated.

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