

**INFLUENCE OF QUALITY MANAGEMENT SYSTEMS ON AUTOMOTIVE
ENGINEERING STUDENTS' PERFORMANCE IN NATIONAL EXAMINATIONS AT
PUBLIC TECHNICAL INSTITUTES IN NORTH RIFT KENYA.**

BY

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@2015

DECLARATION AND APPROVAL

This research project is my original work and has never been presented for the award of any Masters Degree in any other university.

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DEDICATION

This research project is dedicated to my wife Sophia Ndiwa, and children; Grace Ndiwa, Faith Ndiwa, Mercy Ndiwa, Abraham Ndiwa and Benson Ndiwa for their love, support and encouragement throughout my studies.

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ABBREVIATIONS

CEB	County education board
CBET	Competency-based education and training
CPM	Critical path method
DEB	District education board
DP	Deputy Principal
EO	Examination office County education board
BOM	Board of management
GER	Gross enrolment ratio
HOD	Head of department
KIM	Kenya institute of management
MOEST	Ministry of education science and technology
MR	Management representative
NCST	National council Of science and technology
PDCA	Plan, do, check and act
PTA	Parents, teachers association
QMS	Quality management system
QPS	Quality policy statement
SMART	Specific, measurable, realistic, time bound
SPSS	Statistical package for social sciences
TQM	Total quality management
TVET	Technical vocational education and training
TVETA	Technical vocational education and training authority

ABSTRACT

Quality management system is generally described as a collective, interlinked system of quality management practices that is associated with organizational performance. It is set of coordinated activities to direct an organization in order to continually improve the effectiveness and efficiency of its performance. Many technical institutions in Kenya have adopted Quality Management Systems as part of performance contracting requirement by government to enhance performance and improve service delivery. Implementing quality management systems in an organization is expensive and time consuming. Despite enormous resources spend and massive investment by government in technical institutes; their performance in national examinations remain poor. Therefore this study sought to investigate the influence of quality management systems on automotive engineering students' performance in public technical institutions in the North Rift Kenya. The study was guided by four objectives: To assess the extent customer focus influence examination performance; to investigate extent to which leadership influences performance in national examinations; to establish whether involvement of people (teamwork) influence examination performance and to assess the extent the principle of continuous improvement influence the performance of national examinations. The target population of the study was 633 members of staff from four Technical, Vocational and Education Training (TVET) institutions which are ISO 9001: 2008 Certified in North rift. This study used descriptive survey design. Krejcie and Morgan table was used to get sample size. Questionnaires were used to collect data from staff. The data collected was analyzed using Statistical Package of Social Sciences (SPSS) to generate descriptive statistics such as percentages. Inferential analysis was also generated by SPSS so as to measure the relationship between independent variables and the dependent variable.

CHAPTER ONE

INTRODUCTION

1.1 Background information

Quality management system is generally described as a collective, interlinked system of quality management practices that is associated with organizational performance. It is set of coordinated activities to direct an organization in order to continually improve the effectiveness and efficiency of its performance.

Globally, quality management system (QMS) presents a strategic option and an integrated management philosophy for organizations which allow them reach their objectives effectively and efficiently, and to achieve sustainable competitive advantage (Goldenberg and Cole, 2002). Research has been done with regard to the implementation of quality management. Pheng and Jasmine (2004) pointed out that with the adoption of TQM there is the benefit of higher customer satisfaction, better quality products and higher market share. Customer satisfaction is one of the prime objectives of TQM and it is the most widely discussed approach to directing organizational efforts towards the goal of TQM.

According to Ugboro and Obeng (2000), with the full adoption and implementation of TQM, there should be a turnaround in corporate culture and management approaches as compared to the traditional way of management in which top management gives order and employees merely obey them. Proper TQM implementation can be a powerful vehicle by which organizations can achieve excellence in academic performance. However, despite the fact that many organizations adopt TQM framework and its key principles, some of them have not been achieving TQM potential benefits (Young, 1997). He further observed that TQM fails because an effective system was not created to execute TQM principles properly. Since implementation of TQM require unwavering organizational commitment, substantial time

and effort and drastic changes in the organizational culture and business practices, it is important for institutions to clearly understand what it takes to succeed and achieve high performance.

Feigenbaum (1994) contend that “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”. Education is being driven towards commercial competition imposed by economic forces (Seymour, 1992) hence there is need to introduce quality management practices to improve their performance.

More than ever before, in today’s era of heightened competition and expectation, school managers are in the hot seat to initiate innovative management practices that are geared towards the improvement of teaching and learning as is measured through enhanced students’ academic performance in national examinations(Oluchemi,2012; Orodho,2014). They are expected to improve their management practices by becoming educational visionaries, instructional and curriculum leaders, assessment experts, disciplinarians, community and public relations experts, budget analysts and facility managers ((Heltriegell, Jackson, Slocum ,& Theuns, 2009:9). They are also expected to broker the often conflicting interests of parents, teachers, county officials, and need to be sensitive to the widening range of student’s needs, especially those related to their academic excellence(Orodho, 2014). While the job description sounds overwhelming, at least it signals that school managers need to be innovative in their management practices in order to deliver the expected high students academic performance, which, undoubtedly, is the major acid test to most school managers (Ayeni, 2010; Orodho, 2014;).

At school level, principals and deputy principals are the designated internal quality assurance officers and at departmental level the heads of departments (HODS) are the designated

quality assurance and standards officers (Sessional Paper no.1, 2005). The functions of Quality Assurance and Standards Officers include having regular reporting on the general quality of education, identifying educational institutional needs for improvement, ensuring that quality teaching is taking place in the institutions, monitoring the performance of teachers and educational institutions in accordance with all round standard performance indicators, ensuring equitable distribution of teachers by working out the curriculum based establishment, carrying out regular assessment of all educational institutions , advising on the provision of proper and adequate facilities in educational institutions, ensuring that the appropriate curriculum is implemented in educational institutions, encouraging a collaborative and corporate approach to educational institutional management among the various stakeholders, and organizing and administering co curricular activities with a view to developing all round learners (Wasanga, 2007).

The Kenya's Basic Education Act, 2013 gives the Cabinet Secretary the responsibility for the overall governance and management of basic education to all children at national and county levels. According to Teh et al. (2008), senior leaders and the management do guide the organization and assess the organizational performance. Frequent use of effective leadership practices resulted in greater school improvement progress and school effectiveness learning climate (Orr and Orphanos, 2011). Managers must be involved in the effectiveness of TQM and they must provide vision, reinforce values emphasizing quality, set goals, allow free flow of information, ensure training and development of staff, deploy resources for the quality programs and monitor the progress of the same (Harold and Heinz 2010). It is a concern that students in public secondary schools in Kiambu County perform poorly in national examinations. Quality management is a source of enhancing organizational performance through continuous improvement in organizations activities (Teh et al., 2009). School management influences how students learn, and good management helps ensure that school

funds are used prudently (U.S.A.I.D, 2011). Related literatures also show that customer focus is critical in total quality management (Arumugam et al., 2008; Zakuan et al., 2010; Alison and Hon Keung, 2011).

Specific areas of customer needs and in the context of a school “students’ needs” in relation to school management practices need to be addressed. The researchers attempted to address some of these needs. Apart from institutional goals/targets, rarely do students set their individual goals. This study clearly show that students require to have their own target goals for schools to achieve the set academic performance goals and feedback from them on curriculum issues is essential. Darling-Hammond et al. (2007) recognize the important role of school leaders in developing high performing schools. The transfers and demotions are an indication of instability in school leadership. Poor students’ performance in examinations could partly be attributed to leadership and management practices in these schools. It was for this reason that the researcher chose to carry out a study to investigate the Influence of quality management system on automotive engineering students’ performance of National examinations; a case of technical training institutes in North Rift, Kenya. This will further reveal whether there were any significant relationships between four selected QMS principles; institute focus on meeting students’ needs, leadership, and involvement of all staff and the principle of continuous improvement on academic performance. These QMS practices are among key factors that have been identified that could affect students’ performance.

1.2 Statement of the Problem

Quality Management systems are a collection of management system activities that are associated with organizational performance. Studies have indicated that organizations that implement Quality Management systems have enhanced their performance. Organizations

that focus on Quality Management practices involve and motivate employees to achieve quality output and focus on satisfying customers' needs. Quite a number of public Technical Institutions in Kenya have adopted Quality Management systems with the aim of improving service provision. In a study to determine causes of poor KNEC Examinations at selected tertiary institutes in Kiambu, Nyeri and Nakuru counties Karumba (2014) found out that a number of students who achieve certification are wrongly low. Despite the concerted efforts and resources put to implement the quality management systems in public technical institutions, these institutes continue to have dismal performance in academics and service delivery. This study sought to investigate on the influence of quality management system on automotive engineering students' performance in National examinations at public technical institutes in North Rift, Kenya with a view of making recommendations to the policy makers.

1.3 The purpose of the study

The purpose of the study was to investigate the influence of quality management systems on automotive engineering students' performance in national examinations at public Technical Institutes in North Rift, Kenya to reveal the challenges institutions face in adopting the QMS.

1.4 Objectives of the study

1. To assess the extent customer focus influences automotive engineering students' performance in national examination.
2. To investigate the extent to which leadership influence automotive engineering students' performance in national examinations.
3. To establish whether the involvement of lecturers and non-teaching staff (teamwork) influence automotive engineering students' performance in national examinations.
4. To assess the extent to which the principle of continuous improvement influence automotive engineering students' performance in national examinations.

1.5 Research Questions

1. How has the principle of customer focus influenced automotive engineering students' performance in national examinations?
2. How has leadership influenced automotive engineering students' performance in national examinations?
3. To what extent has involvement of people (teamwork) influenced automotive engineering students' performance in national examinations?
4. To what extent has the principle of continuous improvement influenced automotive engineering performance in national examinations?

1.6 Significance of the study

This research sought to yield information that will be relevant to the organization's management in provision of quality managements in academic field and other service provision in learning institutions in Kenya. The study will enlighten policy makers on the importance of embracing the appropriate framework of Quality Management systems in institutions that will improve academic performance in the region and the rest of the country.

The stakeholders may identify challenges related to the implementation of Quality management systems hence ever alert with strategies to curb them.

Finally, regarding academicians and researchers, the study will bridge strategic quality management system knowledge gap and also it will provide recommendation for further research in the field of quality management system in learning institutions in Kenyan context.

1.7 Delimitations of the study

Delimitation is the act of establishing the limit of a study. It stipulates how a study can be narrowed in scope. This study was delimited by the fact that it only dealt with Quality management systems in Technical Training institutions in North Rift Kenya that are ISO:

9001:2008 certified. At the moment there are four ISO: 9001:2008 certified public Technical Institutes in North Rift which include Kaiboi, Olel lessos, Rift Valley and Kitale. There are more than forty public technical training institutes in Kenya but few have implemented quality management systems because of exorbitant cost of implementing it. It only investigated influence of QMS on performance of automotive engineering students in National examination in North Rift Kenya.

1.8 Limitation of the study

Carrying out a research on the influence of quality management system on automotive engineering students' performance in national examination at public technical institutes in North Rift would require finances for travelling. There are four public Technical Institutes in North Rift that are ISO 9001:2008 certified and they are far apart. To reach the four institutes consumed time and money.

The researcher encountered unwillingness by the respondents to divulge information willingly. To overcome this, the researcher assured the respondents of confidentiality of any information given. The research only focused on ISO: 9001:2008 certified public Technical institutes in North Rift Kenya.

1.9 Basic assumption

The study assumed the following;

1. The information given by the respondents was genuine and without bias.
2. All the respondents gave reliable responses.
3. There were records in each Technical training institution offices on QMS in North Rift and institutions were willing to share this information during the study.
4. Academic performance is influenced by quality management system principles in North Rift public Technical Institutes that made it easier to infer to the rest of the country.

1.10 Definition of Significant Terms

Total: Every person in the organization is involved (including the customer and suppliers)

Quality: Customer requirements are met exactly.

Management: Senior executives of the institution.

System: A way of organizing or planning things to achieve excellent results.

National examination: is an examination developed by or for a national or multi-state professional association, board, council, or society (hereinafter referred to as organization) and administered for the purpose of assessing entry level skills necessary to protect the health, safety, and welfare of the public from incompetent practice and meets the standards.

Performance: The achievement at the end of the quality management practice.

Instructor: A teacher or one who instructs.

Workshop technicians: Those who are not instructors but they are involved in preparation and conducting of practical lessons.

Policy: A principle of behavior or conduct thought to be desirable or necessary as expressed by the government or organization.

Objective: Set goals to strive for.

Customer needs: Problems that customers intend to solve with the purchase of a good or service.

Technical Training Institution: An institution that gives practical vocational and Technical instructions.

1.11 Organization of the study

This project has five chapters; the introduction, literature review, methodology, data analysis, presentation, interpretation and discussion of findings and lastly conclusion and recommendations.

Chapter one is the introduction covering the following areas ;background of the study, statement of the problem, purpose of the study, research objectives, research questions, significance of the study, delimitation of the study, limitation of the study, basic assumption and definition of significant terms.

Chapter two of the project consist of literature review which looked at the concept of quality management system, influence of customer focus on performance of national examinations, influence of leadership on performance of national examinations, influence of involvement of people on performance of national examinations and influence of principle of continuous improvement on performance of national examinations. It also consists of summary of literature review, theoretical framework, conceptual framework and knowledge gap.

Chapter three describes the methodology comprising of introduction, research design, target population, sampling procedure, sample size, data collection instruments, piloting research instruments, data collection procedure, data analysis, operationalization of variables and ethical consideration.

Chapter four comprise of data analysis, presentation, interpretation and discussion of findings.

Chapter five comprises of the summary of findings, conclusion recommendations and further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covered reviewed literature on influence of Quality Management System (QMS) on performance of national examination in technical institutions in North Rift, Kenya. It began with a brief review of the Concept of QMS and National Examination Performance. It looked at the factors that influence National Examinations Performance in public technical institutes in North rift Kenya. It discussed four quality management principles that may be factors that influence performance of national examinations. These quality management principles included; customer focus, leadership, involvement of people and continuous improvement. Other four QMS principles which include process approach, systems approach factual approach and mutually beneficial supplier relationships were not considered.

2.2The Concept of Quality Management System and National Examination

Performance

A quality management system is defined as a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance. (KIM, 2009). The QMS requirements are specified in ISO 9001standards and they can be used by internal and external parties including certification bodies, to assess the organization's ability to meet customer, statutory and regulatory requirements applicable to the product or product required by a customer or intended output resulting from the product realization processes and the organization's own requirement. The international standard specifies requirements for QMS where an organization: Needs to demonstrate its ability to consistently provide product or service that meet customer needs and applicable statutory and

regulatory requirement 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 requirements. The general requirements involved the organization to establish quality manual document, implement and maintain a QMS and continually improve its effectiveness in accordance with requirement of International standards. The quality management system documentation requirements include; documented statement of quality policy, quality objectives; a quality manual; documented procedures and records required by this international Standard. The extent of the quality management system documentation can differ from organization to another due to: the size of the organization and type of activities; the complexity of processes and their interactions and the competence of personnel. A good QMS will help meet customer's needs and expectation; improve process control and reduce wastage (KIM, 2009).

The QMS is based on the Deming's cycle; PLAN, DO, CHECK AND ACT (PDCA) where the management need to plan what to do, do what was planned, Check whether things have happened according to plans and finally Act to ensure that things will improve next time. The management should measure the gap between the actual performance and the expected performance and once the gap is evaluated, the management then works out the plan that harnesses everybody to focus their efforts in the same direction. For this process to be effective objective must be set to act as reference point to measure performance and such measure should be quantified as far as possible. An action plan needs to be put in place that describes how the objectives will be achieved. Every management system is characterized by control, relevance, consistence, compliance and continuous improvement (KIM, 2009).

Harold and Heinz (2010) found that, top managers who use TQM practices provide a vision, reinforce values emphasizing quality, set quality goals, have a free flow of information and deploy resources for the quality program which result to greater customer satisfaction, less

wastage, increased total productivity, reduced costs, improved profitability and an environment in which quality has high priority. An empirical study conducted by Arumugam et al. (2008) explored the relationship between quality management practices and quality performance on ISO 9001:2000 certified manufacturing organizations in Malaysian organizations. The study revealed that customer focus and continuous improvement were perceived as dominant total quality management practices in quality performance. Organizations must be knowledgeable in customer requirements and responsive to customer demands Zakuan et al. (2010). School principals should adopt a more positive attitude towards “meeting pupils” needs Alison and Hon Keung (2011). Bobby et al. (2009) found that goal setting process informs workers of their specific responsibilities and ensures that necessary resources are identified and provided. In addition they assert that effective goal setting has shown to be a driver of performance. Setting goals enhance engagement and, develop optimism which results in improved performance (Dragoni and Kuenzi, 2010). Effective communication with students knowing about their progress is a key to enhancing learning and helps them to know the degree of achievement towards the expected goals (Parshardis, 2008). An effective communication influences the organization to move systematically towards employees’ involvement and customer satisfaction and improves organization performance (Ooi et al., 2007; Yusuf et al., 2007). Success has been achieved as a result of the quality of leadership at the school level, rather than the direct influence of policy (Day et al., 2009)

The Technical, Vocational and Education Training (TVET) sub-sector in Kenya has experienced moderate growth over the last 40 years. However, the sub-sector is yet to produce adequate and skilled middle level human resource required to meet the demands for national development. The Vision 2030 has however placed special demands on TVET as the leading engine that the economy must essentially rely upon to produce adequate levels of

middle level professionals that will be needed to drive the economy towards the attainment of the vision 2030. (Republic of Kenya 2012).

2.3 Customer focus and national examination performance.

Academic performance is a complex behavior. Steven (2005) found that supportive teacher student relationship promotes social and emotional health of early adolescents with disabilities. Achievement of students also improves when students are intrinsically motivated and when teachers are supportive of autonomy.

A growing body of research suggests that strong student-teacher relationship, characterized by caring and high expectations for students' success, may be prohibitive of universal benefits, such as academic achievement and progress in students. (Weiss et al., 2005). Kate (2008), in a study on the role of psychosocial factors as a predictor of educational outcome among adolescents, found that teacher support was associated with improvement of academic performance among white students.

Effective teaching and mentoring helps students to explore their world with a sense of trust and autonomy towards the ultimate goal of fully intrinsic self regulation and improved academic achievement and success (Steven, 2005). Marshalls (2008) observes that teaching is more than making information available; interacting with the material and with an expert in the discipline is more likely to encourage students learning. Students and teachers have been known to be more satisfied in innovative, rather than control oriented classes and the classes that combine a moderate degree of structure with high student involvement and high teacher support (Sternberg, 1995).

Kafui (2005) report that teacher absenteeism and lateness may result in failure to complete the syllabus, which in turn, may affect the motivation, enthusiasm, and commitment to learn among the students. In the absence of encouraging atmosphere, students generally lose

interest in their studies, and in such a situation, their courses of study become difficult for them (Sidiqqi, 2003).

Teacher-student relations Positive teacher-student relations can help to establish an environment that is conducive to learning. Research finds that students, particularly disadvantaged students, tend to learn more and have fewer disciplinary problems when they feel that their teachers take them seriously. One explanation is that positive teacher-student relations help foster social relationships, create communal learning environments and promote and strengthen adherence to norms conducive to learning (OECD, 2011)

A study by Adeyemo (2012) revealed various ways of improving management practices for head teachers in human resource management, financial management and teaching and planning teaching and learning resources that facilitate enhanced students' academic performance. One of the most important skills possessed by effective teachers is that of class management and effective use of teaching learning resources. These skills are considered by Orodho (2014) and Oluchemi (2012) as being at the heart of planning effective teaching and learning that result into enhanced students' academic performance. Hellriengel et al.(2009) contends that school managers, especially teachers, have the opportunity to plan and create learning environments that is kind and respectful through the use of appropriate resources in order to meet the nurturing needs of learners. Students will be better able to reciprocate genuine loving; caring behavior and more focused learning if the demonstration of affection and hard work is modeled for them and geared towards enhanced academic outcomes. The literature reviewed thus far indicate that management practices, especially as they relate to classroom as an ecological system in which students build their understanding, attitudes and feeling and facilitate their mental abilities to aspire to higher levels of academic excellence is now very much at the forefront in education literature (Ayeni,2010; Adeyemo, 2012; Oduwaiye et al.,2012).Thus, the preview adopted throughout this work goes beyond the

notion of an authoritarian handling down of rules in the name of school management. It conceptualizes the classroom as a workplace inhabited by teachers and a large number of learners pursuing the task of education.

The principal coordinates all activities taking place in the institution. As such he should be knowledgeable in managerial skills, which enables him direct, plan, supervise, monitor, control, organize and make correct decisions regarding production in his institute. Due to their complexities, the production process in educational organization should be thoughtfully worked out for both effectiveness and efficiency by the principals assisted by heads of department (HODs).

The HOD assists the principal in management of the institute, hence is responsible for departmental management and coordination (Mbiti, 2007). Being a middle level manager in the institute he or she is responsible for promoting efficiency in the teaching process in the institute with regard to syllabus grasp, schemes of work formulation, records of work maintenance and records of tests and examinations. The HOD also plays the role of supervising and carrying out internal inspection of subject teaching regularly.

The academic qualifications and professional training for the teachers are therefore key contributors of the quality of education and training.

2.4 Leadership and examination performance

According to KIM, (2009) ISO 9000 requires an organization to develop and state its policy on quality. The content of policy should be made known to all the staff. The quality policy should emphasize a commitment by the organization to comply with requirements and to continually improve the effectiveness of the QMS, provide a framework for establishment and reviewing quality objectives which should be communicated and understood at all levels of the organization. The quality policy may include a company's or organization's assurance of commitment to providing quality product and services; a company's strategy of involving

everyone in the organization in quality improvement; an assurance that quality improvement will be a continuous process; organizational declaration of the importance of the customers and every supplier; a strategy of involving suppliers in quality improvement; emphasis on education and training in order to enhance quality improvement; publicity and communication of the quality policy will be made within the organization so that everyone will understand it (KIM, 2009).

The standard requires that top management to provide evidence for its commitments to the development of the QMS, implement of the QMS continually improving its effectiveness the management should also communicate to the entire organization the importance of meeting consumer as well as statutory and legal requirements. Similarly, top management should ensure that consumer requirements are determined and full filed with the aim of enhancing consumer satisfaction. They should also establish a policy for quality within the organization and ensure that quality policy is communicated and understood within the entire organization (KIM, 2009).

KIM, (2009) states that ISO 9001-2000 specifies the requirements for a QMS that may be used by organization for internal application and certification or contractual purposes. The process approach is shown in conceptual model from ISO 9001 standard, recognizing that customers plays a significant role in defining requirements as inputs, and monitoring of customers satisfaction is necessary to evaluate and validate whether customers' requirements have been met. Top management has to demonstrate leadership by providing unity of purpose through appropriate quality policy, ensuring that measureable objectives are established, and demonstrating that they are fully committed to developing, sustaining and improving the QMS.

The TVET policy recognizes the need to ensure that the high standards and goals set for provision of education to meet Kenya's aspirations are fully met. The Policy addresses

various aspects of devolution e.g. it has established County Education Boards(CEBs) whose functions, among others, will be to interpret and implement education and training policies and coordinate all education programmes and initiatives at the County level. Unlike the previous District Education Boards (DEBs), the chairmanship of CEBs will be drawn from professional educationalists. This constitutes a big shift from District Commissioners who chaired DEBs. The composition of the CEBs will be highly inclusive as it encompasses all key stakeholders in Education such as parents, teachers and representatives from Board of Management (BOM). The Government has also rebranded Board of Governors (BOGs) to Boards of Management (BOM) with an expanded membership which includes representatives from both gender and the disadvantaged. The policy and the Bill have also, for the first time, recognized Parents Teachers Association (PTA) in the management of all educational and training institutions and have been vested with clear, but distinct functions and responsibilities from those of the Boards of Management. Central to ensuring access, retention and provision of quality instruction in education and training institution is a robust standards and quality assurance system (R.O.K, 2014).

Quality in Education is the degree to which education can be said to be of high standard, satisfies basic learning needs, and enriches the lives of learners and their overall experience of living. It is this context that the policy strongly recommends the entrenchment of an independent Education Standards and Quality Assurance Commission in the envisaged Education Act. The commission will supervise the teaching and learning process and ensure that quality education is provided to all the learners (R.O.K, 2012)

2.5 Involvement of lecturers and non-teaching staff (teamwork) and examination performance.

Top management shall ensure that quality objectives including those needed to meet requirements for products are established at relevant functions and levels within the organization. The quality objectives shall be measurable and consistent with the quality policy. The organization shall determine and implement effective arrangements for communicating with consumers in relation to product information, inquires, contracts or order handling, including amendments and consumer feedback, including consumer complaints (ISO, 2008).

Similarly, the organization should ensure that the objectives of the organization are linked to the consumer need and expectation and such consumer needs and expectations are communicated throughout the organization. Processes within an organization should be structured in order to achieve certain objective in the most efficient and effective manner. Therefore identifying, understanding and managing interrelated process as a system contributes to the organization's effectiveness and efficiency in achieving its objectives. Systems are constructed by connecting interrelated process together to deliver the systems an objective which is the satisfaction of the interested parties. The organization should determine the necessary competence for staff performing work that influence quality, provide training to staff and ensure that staff is aware of the importance of their activities and how they contribute to the achievement of quality objectives. The standard has also bestowed the management with responsibility for establishment of appropriate communication system within the organization. The top management should pay attention to input and output related activities such as consumer feedback, process performance, improvements needed in the system.

Institute principals should adopt a more positive attitude towards “meeting students” needs Alison and Hon Keung (2011). Bobby et al. (2009) found that goal setting process informs workers of their specific responsibilities and ensures that necessary resources are identified and provided. In addition they assert that effective goal setting has shown to be a driver of performance. Setting goals enhance engagement and, develop optimism which results in improved performance (Dragoni and Kuenzi, 2010). Effective communications influence the organization to move systematically towards employee involvement and customer satisfaction and improve organization performance (Ooi et al., 2007; Yusuf et al., 2007). Success has been achieved as a result of the quality of leadership at the institute level, rather than the direct influence of policy (Day et al., 2009).

2. 6 Continuous improvement principle and examination performance

A quality audit is a systematic and independent examination to determine whether quality objectives and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives (KIM 2009). ISO 9000 (2005) defines quality audit as systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

The rationale for quality audit include: to determine the conformity or non-conformity of the system elements within specified requirements; to determine the effectiveness of the implemented quality system in meeting specified objectives; to afford opportunity to improve the quality system; to compare practice with procedure; to provide evidence that the system is in compliance with the standards and hence help in the certification process; to evaluate a supplier before establishing a contractual obligation; to verify whether procedures and

instructions are being implemented; to assess whether products are meeting the customer's quality requirements.

Organizations that have adopted QMS are expected to continuously improve the systems and hence improve its performance. Likewise technical institutes that have embraced QMS should continuously improve national examination performance. Quality audit and continuous monitoring and evaluation will reveal level of performance.

In a study by Mehmet Sitki and Emre Aslan (2012) on the effects of ISO 9001 QMS on the performance of small and medium size enterprises established that there is no statistical significance difference between certified and non-certified companies in terms of performance. Certification showed no direct effects on performance. But Shadrack Mangula (2013) in a study on the effects of QMS certification on organizational performance in Tanzania, a case of manufacturing industries in Morogoro concluded that ISO 9001 certified organizations show much improvement on performance in terms of quality of products. In a study by Joyce Awuor Ogoye (2013) on influence of QMS implementation on organizational performance, case study of South Nyanza Sugar Company limited Migori County, Kenya found that implementation of QMS has a positive influence on organizational management. From the literature reviewed there is conflicting findings on the influence of quality management systems on organizational performance thus there is need for further research.

2.7 Summary of Literature Review

A quality management system is defined as a set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance. (KIM, 2009). Academic achievement has become a yardstick of self worth and success. The outcome of education determines the quality of life, progress and status of people living anywhere in the world (Mayuri & Devi, 2003).

Kate (2008), in a study on the role of psychosocial factors as a predictor of educational outcome among adolescents, found that teacher support was associated with improvement of academic performance among white students. One explanation is that positive teacher-student relations help foster social relationships, create communal learning environments and promote and strengthen adherence to norms conducive to learning (OECD, 2011)

Quality management system require organizational commitment , substantial time , effort and drastic organizational culture and business practices .It therefore calls for institutions which have adopted quality management understand what it takes to succeed and achieve high performance . The technical training institutes train middle man power. The trainees are examined to test the level of competencies by use of national examination.

Total quality management is an efficient management technique that requires full involvement of all employees on all organizational levels thus representing organizational culture. In educational institutions, involvement of all the employees meaning, the top management, middle level management and non teaching staff improves performance of examination.

2.8 Theoretical framework

The study was based on the goal-setting theory. A goal is the aim of an action or task that a person consciously desires to achieve or obtain (Locke and Latham, 2002).The theory states that the source of motivation is the desire to reach a goal. The concept of learner characteristics is an important dimension of the social foundation of TVET. Thompson (1973) observed that this concept influences how we prepare, structure and execute programmes in technical and vocational education. He further explained that managers must have purposeful goals. In other words, people with responsibilities must have goals towards which they direct their activities if their work is to be meaningful. Joyce, Weil and Calhoun's (2003) theory contends that goal-setting is an effective way of increasing motivation and

performance. The intention of achieving a goal is a primary force for behavior. Goals increase the effort expended on activities; they help people take action on prioritized activities while ignoring or paying less attention to extraneous activities that may be deferred until later. This study considered those aspects of this theory that are pertinent and relevant to how and what an exemplary TVET institution could possibly emulate to achieve performance through Quality Management System.

Goal setting theory

Goal setting theory states that the source of motivation is the desire and intention to reach a goal (DSU 2014).

Locke and Latham (2006) postulated that: if individuals or teams find that their current performance is not achieving desired goals, they become motivated to increase effort or change their strategy.

2.9 Conceptual framework of the study

This study developed the following conceptual framework (figure 2.1) that illustrates how the dependent variables related to the independent variables. The independent variables included mechanisms of the QMS: customer focus, leadership, involvement of people (teamwork) and principle of continuous improvement. On the other hand, the dependent variable is performance of national examinations. The factors of dependent variable included; Improved learners performance in the national examination; Achievement of the institution set objectives; high level of customers satisfaction. The figure below gives a diagrammatic illustration of conceptual framework.

Figure 2.1 Conceptual Frameworks

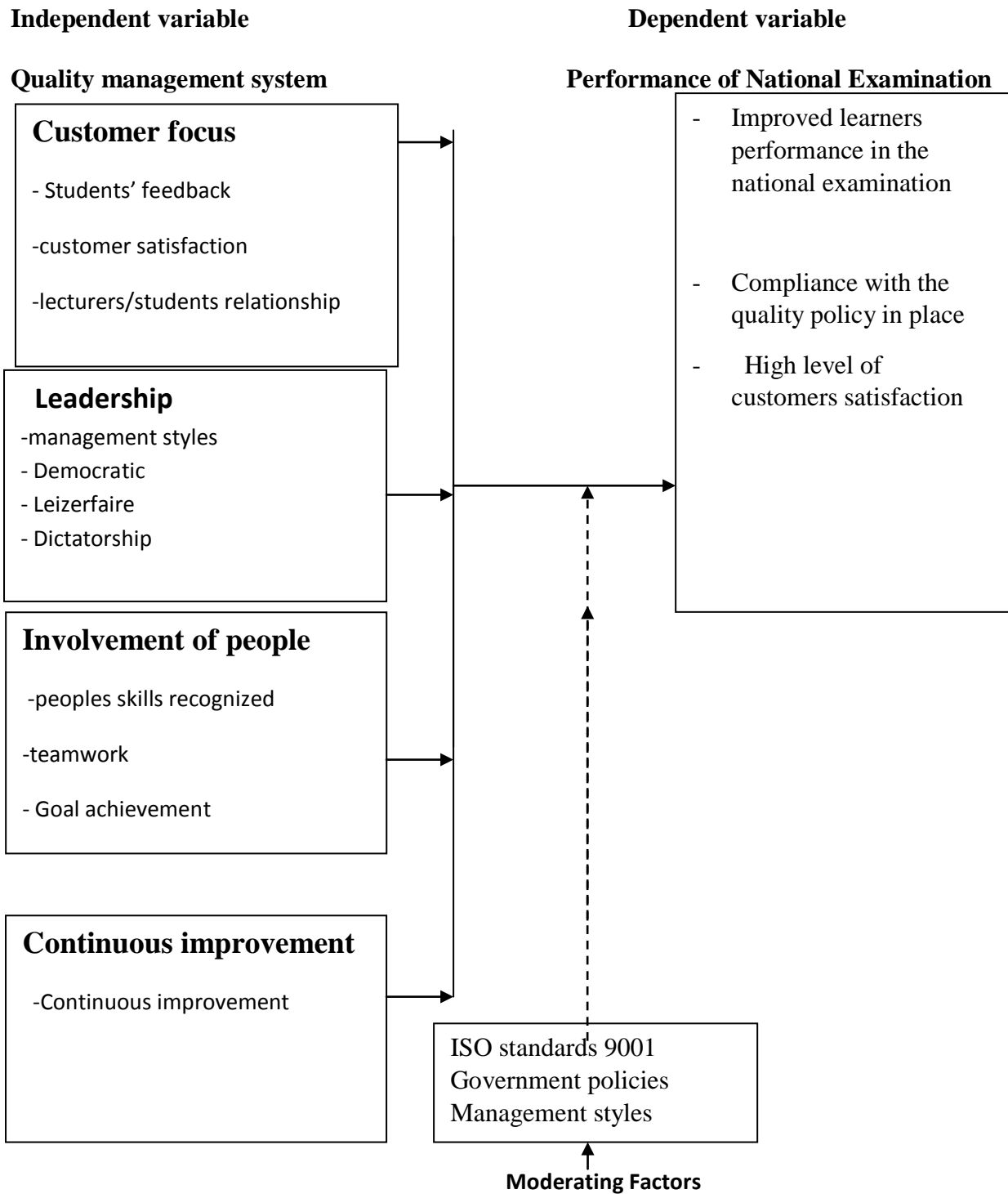


Figure 2.1 Conceptual Framework showing the influence of QMS on Performance of National Examination

Source: Author, 2015

2.10 Knowledge gap

The introduction of performance contracting by government recently is expected to enhance public service delivery. The government ministries, institutions and all its agencies are expected to sign a performance contract to achieve negotiated targets. Thus in the training institutions, annual targets may include the improvement of national examination performance. Institutions are expected to adopt quality management system. Implementing quality management is expensive exercises which require enormous resources in terms of finance, human capital and time. It is expected to bring quality performance in the organization. There has been limited research conducted in Kenya regarding the influence of quality management system on performance of national examination. The question is, has the adoption of quality management system brought any benefits in terms of improved examination performance at national level? There is therefore a need to conduct a study on influence of quality management systems on automotive engineering students' performance national examinations in public learning institutions in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design used by the researcher in establishing the influence of QMS on national examination performance in technical institutions in North Rift, Kenya. The chapter also discussed target population, sample size and procedures, data collection instruments, reliability, validity, data collection procedure, data analysis techniques and ethical consideration for the study.

3.2 Research design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. (Claire Selttiz et al 1962).C.R Kothari (2004) defines research design as the conceptual structure within which research is conducted; it constitutes a blue print for collection, measurement and analysis of data. Patton (2011) describes a research design as a structure that is followed in the process of conducting research. This study employed a descriptive survey design which allowed observation without affecting normal behavior. It was also useful where it was not possible to test and measure the large number of samples needed for more quantitative types of experimentation. (Martyn Shuttleworth, 2008). The advantage of a survey design as indicated by Mugenda, (2003) was of particular relevance to this study for its ability to avoid manipulation. The design was appropriate for this study because the study sought to obtain data to facilitate describing the phenomenon understudy. Descriptive research design enables a researcher to reduce a large mass of data to simpler, more understandable terms with a few indices such as percentages.

3.4 Target Population

Mugenda & Mugenda (2003) define population as entire group of individuals, events or objects having common observable characteristics. Target population is defined as total number of subjects or the total environment of interest to the research (Willis Yuko Oso and David Onen, 2009) .Therefore, this section looked at the population the researcher wished to study and it was from the results of this group that the generalization to the entire nation of Kenya was made.

Target population for this study was **633** members of staff from the four institutions comprising of top management, middle level management, lecturers and non teaching staff.

See table 3.1 below.

Table 3.1: target population

CATEGORY	INSTITUTES				TOTAL
	Kaiboi	Rift Valley	Ole Lessos	Kitale	
Principal	1	1	1	1	4
Deputy Principal	1	1	1	1	4
Dean Of Students	1	1	1	1	4
Registrar	1	1	1	1	4
Management Rep.	1	1	1	1	4
Examination Officer	1	1	1	1	4
Industrial Liaison Officer	1	1	1	1	4
Head of Department (HOD)	1	1	1	1	4
Lecturers	71	147	85	112	415
Nonteaching Staff	39	55	43	49	186
TOTAL	118	210	136	169	633

Source; Institutional records

3.5 Sampling Procedure and Sample Size

3.5.1 Sampling procedure

The purposive sampling technique was applied to the top and middle management staff which comprised of principal, deputy principal, dean of students, Registrar, management representative (M.R.) Examination officer, Industrial liaison officer and Head of Department. Purposive sampling was deemed appropriate for selecting officials because it entailed identifying individuals who had the required information (Payne & Payne, 2004).

Simplerandom sampling was used to sample lecturers and non teaching staff.Krejcie and Morgan (1970) table (see appendix V) was used to determine the sample size of the lectures and non teaching staff.

3.5.2 Sample size

According Kothari (2004) a sample size is the selected respondent representing the population.

The target population was 633 and the sample size was 242 according to Krejcie and Morgan (1970) table of determining sample sizes(see appendix V).

3.6 Data Collection Instruments

This refers to the tools that were used to collect data from the population. For this study questionnaire were used to collect primary data.

Questionnaires

This formed the major source of primary data used in the study. The information collected from the source was obtained through the use of questionnaires developed by the researcher and approved by the supervisor. The questionnaires in the study were filled by the sampled lecturers and non teaching staff.

3.7 Piloting Research Instruments

Pilot study was carried out on a sample from Sang'alo institute and Eldoret polytechnic which were not part of the main study. Piloting helped to eliminate ambiguous questions, determined the soundness and resoluteness of the research instruments. The questionnaires were administered, the collected data coded, cleaned, analyzed, discussed and conclusions made.

3.7.1 Reliability of the Instruments

Reliability is the measure of a degree to which a research instrument yields consistent results or data after repeated trial Orodho (2004). According to Kombo and Tromp (2006), reliability is a measure of how consistent the results from a test are. The study used test retest technique to ascertain research instruments reliability (Kerlinger 2009). Piloting of the instruments helped in the realization of the reliability of the instruments.

3.7.2 Validity of the Instruments

According to Mugenda (2003), research instruments need to be valid and reliable in order to produce useful results. Validity of research instruments is achieved when they measure what they are intended to measure. The instruments were checked by the supervisor to ascertain whether the items are clear and could lead to obtaining relevant data. The researcher sought the assistance of the University of Nairobi lecturer (supervisor) to establish validity of the research instrument.

3.8 Data collection procedure

Data collection procedure simply refers to the steps that were used in the study while collecting the data from the respondents. It was a step by step process that guided the study while the field work was being undertaken (Kothari, 2008). Permission was sort from the National Council of Science and Technology to collect data. This enabled the respondents to agree to participate in the study. This eluded suspicion from the respondents compared to if

the study could have been conducted without. The questionnaires were administered on the sampled officers in all the four institutions.

3.9 Data Analysis

The data from questionnaires was coded, entered, cleaned and analyzed using Statistical Package of Social Sciences (SPSS). The study used cross tabulations to describe the phenomenon of QMS and National examination performance factors. The output presented in tabulations, percentages and graphs.

3.10 Operationalization of variables

Table 3.2 Operational definition of Variables

Objectives	Variables	Indicators	Measurements	Scale	Tools of analysis
To assess the extent customer focus influence examination performance in Technical institution in North rift	Dependent variables Improved customer satisfaction Independent Customer focus	Learners participation Pass examination and other fail Attitude and personality change of students	Occasional	Ordinal	Descriptive analysis
To investigate the extent to which leadership influence the performance of	Dependent variables Improved performance Independent	cooperation commitment	Once	Ordinal	Descriptive and content analysis

national examination.	variables Management styles				
To establish whether involvement of people influence performance of national examination.	Dependent variables Improved examination results. Independent variables teamwork	Goal achievement	Once	Ordinal	Descriptive analysis
To assess the extent the principle of continuous improvement influence performance of national examination.	Dependent variable High level of customers satisfaction Independent variable Continuous improvement	Examination results trends	Once	Ordinal	Descriptive and Content analysis

3.11 Ethical consideration

Collecting data from people raises ethical concern. These include taking care to avoid harming people, having regard for their privacy, respecting them as individuals and not subjecting them to unnecessary research (Mellville and Wayne, 2001.)

The study undertook the following ethical consideration during the study:

1. Permission was obtained from relevant authorities before conducting interviews
2. The researcher sought consent from the respondents for the interviews
3. Respondent's privacy was guaranteed and protected by strict standards of anonymity.
4. The respondents were not coerced into participating in the study

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the results of the study, the questionnaire rate of return, the demographic characteristics of respondents and discussions as per the research objectives. The researcher used frequencies tables to present data.

4.2 Questionnaire respondent return rate

Table 4.1: Questionnaires return rate

	Frequency	Percentage (%)
Responded	178	73.6
Did not respond	64	26.4
Total	242	100

Out of 242 questionnaires that were administered to respondents, 178 were returned. This was return rate of 73.6%.64 (26.4%) questionnaires were not returned. This was attributed to commitment of the staff as the institutes were conducting examination at a time of the research. The response rate for data analysis was reliable as Babbie (2002) postulated that any response of 50% and above is adequate for analysis.

4.3 Demographic Characteristics

4.3.1 Gender

Table 4.2: Gender

Gender	Frequency	Percentage (%)
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Male	128	71.9
Female	50	29.1
Total	178	100

The findings revealed that 128 (71.9%) respondents were male and 50(29.1%) were female. The number of men was higher implying that women staff in technical institutions is low. Women have not shown great concern on automotive and their influence in performance is felt. The table below shows the gender.

4.3.2 Age distribution of the respondents

Table 4.3: Age bracket

	Frequency	Percentage
20-24	-	-
25-30	25	14.0
31-35	65	36.5
36-40	70	39.3
Over 40	78	43.8
Total	178	100

From table 4.3, it reveals that there is no worker in the age bracket of 20-24. The age bracket of 25-30 had 25(14.1%), 31-35 had 65 (36.5%) workers, 36-40 age brackets had 70 (39.3%) and finally those over 40 years were 18(10.1%) workers. It implies that majority of workers

are in the ages of 36-40. The age brackets that is characterized by people who have had some experience are keen in their career development. This group influence student's performance in National Examination at Public Technical Institutes. The last category is those who are aged over 40 years who were 78 (43.8%). This is the most experienced lot who could be influencing greatly the performance of national examinations.

4.3.3 Education level distribution

Table 4.4: Level of education

Level of education	Frequency	Percentage %
Diploma	64	36
Higher national diploma	53	29.8
Bachelors degree	51	28.6
Masters degree	10	5.6
PhD	-	-
Total	178	100

The findings from table 4.4 revealed that majority of workers in technical institutes are Diploma holders with 64(36%) followed by higher National Diploma Holders with 53 (29.8%) then those with Bachelors Degree being 51(28.7%) and finally masters degree holders being 10(5.6%). The findings imply that majority of workers with Diploma are the ones who influence the performance. There is need to have a capacity building programme for skills upgrading.

4.3.4 Distribution of length of stay in the in institution by respondents

Table 4.5: Years of service

Years of service	Frequency	Percentage
Less than 5 years	18	10.1
6-10 years	70	39.3
11- 15 years	65	36.5
16 years and over	25	14.1
Total	178	100

Table 4.5 reveals that most of the workers have worked between 6-10 years with 70(39.3%) falling in this category, 18(10.1%) having worked for less than 5 years, 65(36.5%) having worked for 11-15 years and finally those who have worked for over 16 years were 25(14.1%). Those in the category of 6-10 years are majority and it is the category that influences the performance of students. The category could range from workers in administrative to the grounds people of different departments. The category of 11-15 could be lecturers who are impacting knowledge while those in 6-10 category could be focused on skills that foster better performance of students.

4.3.5 Designation of respondents

Table 4.6: Designation

Designation	Frequency	Percentage
Principal	1	0.6
Deputy principal	3	1.7
Registrar	2	1.1

Dean of students	2	1.1
Industrial liaison officer	2	1.1
HODs	3	1.7
Examination officer	4	2.2
Management representative	2	1.1
Performance contracting co-ordinators	3	1.7
Lecturers	111	62.4
Non teaching staff	45	25.3
Total	178	100

The study found out that the ration of top management to the staff was very low. The middle management who includes heads of departments' ratio to staff is also low. The teaching staff (lecturers) is the majority of the employees of the institutions.

Management representatives were 2(1.1%) they coordinate the learning programs between the management and the department of automotive by passing information from the administration to the staff.

Performance contracting coordinators from the study were 3(1.7%). The coordinators have been given the mandate to ensure that they facilitate industrial attachment. They are appraised and evaluated in order to foster proper learning and good performance in the institutes.

From the study the number of lecturers were 111(62.4%) found in the department of automotive. It shows that despite that lecturers are there, their manpower is high because they are more in number, how man power could hinder or influence performance of students' in national examination negatively. There is need to have enough manpower to foster better results.

The number of non teaching staff were 45 (25.6%) ranging from secretaries, messengers, matrons, cooks and watchman. They also play a crucial role in ensuring that students and staff work efficiently by providing optimum services that boost learning and teaching hence influencing the realization of good performance in National examination.

4.4 Customer focuses principle on automotive engineering students' performance in national examinations.

Table 4.7:Customer focus

Statement	SA	A	U	D	SD
Students' needs influence their performance in national examination	100 (56%)	60 (34%)	0	5 (3%)	13 (7%)
Students' expectations influence their performance in national examination	120 (67%)	20 (11%)	2 (9%)	31 (28%)	5 (3%)
Students' feedback influence their performance in national examination	40 (23%)	60 (34%)	5 (3%)	60 (34%)	15 (8%)
Good lecturer/student relationship influence performance in national	70 (39%)	80 (45%)	0	10 (6%)	28 (16%)

examination

Addressing students' problems promptly	50	100	0	20	8
influences their performance at national examination	(28%)	(56%)		(11%)	(5%)

Key

SA: Strongly Agree

A: Agree

U: Undecided

D: Disagree

SD: Strongly Disagree

4.4.1 Students' needs influence performance in national examinations

On the statement concerning students' needs influencing their performance in national examination revealed that 100 (56%) strongly agree, 60 (34%) agree, 5 (3%) disagree, while 13 (7%) strongly disagree. The findings reveal that actually students needs influence their performance and they should be the centre of interest.

4.4.2 Students' expectations influence their performance in national examinations

The second statement revealed that majority 120 (67%) strongly agree, 20 (11%) agree, 2 (1%) being undecided, 31 (28%) disagree while 5 (3%) strongly disagree the students expectations influence performance in national examinations. It means that students' expectation predetermine their focus which aims at improving performance in examination.

4.4.3 Students feedback influence their performance in national examinations

The findings revealed that majority agree with 60 (34%) same as those who disagree 60 (34%) while 40 (23%) strongly with 15 (8%) strongly disagree and 5 (3%) being undecided that students' feedback is important as it satisfy the needs or psychological fulfillment of students'.

4.4.4 Good lecturer/student relationship influence performance in national examinations

Further more the study reveals that good lecturer /students relationship influence performance in national examination whereby majority 80 (45%) agree and 70 (39%) strongly agree followed by 28 (16%) who strongly disagree and 10 (6%) being the least to disagree. The way respondents perceived that relationship between students and lecturers should create conducive learning environment.

4.4.5 Addressing students’ problems promptly influences their performance in national examinations

The final statement on customer focus principles reveal that 100 (56%) agree, 50 (28%) strongly agree, while 20 (11%) disagree and finally 8 (5%) strongly disagree on the view that addressing students’ problems promptly influence their performance in national examination. It implies that administration should address students’ issues promptly so as to reduce challenges that affect teaching and learning and enhance performance in national examinations.

4.5 Leadership principle

Table 4.5: Leadership principle findings

Statement	SA	A	U	D	SD
Lecturers and non-teaching staff contribute to performance of national examinations.	150 (84%)	6 (3%)	2 (1%)	20 (11%)	0 (0%)
Communication of vision influence students performance in national examinations	20 (11%)	30 (17%)	10 (6%)	80 (45%)	28 (21%)

goal-Setting influence student performance in national examinations	18 (10%)	78 (44%)	0	36 (20%)	36 (20%)
Timely deployment of resources influence students' performance in national examinations	32 (18%)	105 (59%)	15 (8%)	10 (6%)	16 (9%)
Transfers and demotions of lecturers affect negatively students performance in national examinations	37 (21%)	116 (65%)	4 (2%)	15 (8%)	7 (4%)

4.5.1 Management styles influence on automotive engineering students' on performance in national examinations

The findings reveal that majority 150 (84%) hold the view that management principle style to large extent influence students' performance at national examination. However 20 (11%) agree on the management style, 6 (3%) disagree while 2 (1%) strongly disagree. It implies that the type of leadership style influences performance in every situation. It imply also that a good leader assess the ground or behavior of people working in an environment and apply appropriate style that going to favour better performance in national examinations.

Among the statements it is clear indication that management style plays a major role by providing the utmost trust among the stakeholders in capacity building of improving performance in national examination.

4.5.2 Communication influence on performance in national examinations

Majority 80 (45%) agree that communication of vision enhances students' performance in national examination. 20 (11%) strongly agree on the view, 28 (21%) strongly disagreeing on

the view, 20 (11%) disagree on communication of vision. However 35 (20%) were undecided, implying they do not know whether communication enhances or not but it is of great concern to realize that communication plays a crucial role in enhancing good performance. This agrees with (Parshiadis 2008) who concluded that effective communication enhances learning and helps to know the degree of achievement towards expected goals. Different channels of communication should be used to facilitate the flow of information from one source to another.

4.5.3 Goal-setting influence on performance in national examinations

The study findings also indicate that majority 78 (44%) of respondents agree that goal setting influences students' performance in national examination. 18(10%) strongly agree, 36(20%) disagree and another 18(10) strongly disagree on goal setting while 15 (6%) are undecided, they are not aware of goals and even the way goals are set and strategies that assist in implementing the goals. Goal setting should be a driving force for examination performance.

4.5.4 Timely deployment of resources influence on performance of national examinations

Findings revealed that 105 (59%) that form the majority agree that timely deployment of resources enhances students' performance in national examination. 32 (18%) strongly disagree on the view, 15 (8%) being undecided, 10 (6%) disagreeing while 16 (9%) strongly disagree on timely deployment of resources. It implies that in any learning situation resources should be availed in time so that they can be used timely to enable students do well in national examination.

4.5.5 Transfers and demotions influence on performance in national examinations

Transfers and demotions of lectures affect negatively students' performance in national examinations as revealed by the majority of 116 (65%) of respondents who agree, 37 (21%)

strongly agreeing, 15 (8%) disagreeing and 7 (4%) strongly disagreeing while 4(2%) are undecided. It implies that such issues on transfers and demotions influence negatively performance. Motivational factors should be put into consideration to make lecturers motivated and do their work satisfactorily without thinking of applying for transfer, administration or head of institutions should avoid demoting of lecturers but should embrace the corrective measures that build morale of the lecturers hence influencing positively performance of automotive students in national examinations.

4.6 Involvement of people principle influence on automotive engineering students' performance in national examinations.

Table 4.9: Involvement of people

Statement	SA	A	U	D	SD
Lecturers and non-teaching staff contribute to performance of national examinations.	150 (84%)	6 (3%)	2 (1%)	20 (11%)	0 (0%)
Lecturers alone influence performance of national examinations	20 (11%)	30 (17%)	10 (6%)	80 (45%)	28 (21%)
Setting of goals at all levels of operations in the institute enhance performance in national examinations	18 (10%)	78 (44%)	0	36 (20%)	36 (20%)

Recognizing abilities of all the staff	32	105	15	10	16
by management contribute to improved performance in national examinations	(18%)	(59%)	(8%)	(6%)	(9%)
Suppliers influence students' examination performance	37	116	4	15	7
	(21%)	(65%)	(2%)	(8%)	(4%)

4.6.1 Lectures and non-teaching staff contribute to performance of national examinations

From the study findings from table revealed majority 150(84%) strongly agree and 6 (3%) agree that lecturers and non teaching staff contribute to performance of national examination. Lecturers play a crucial role in ensuring that students do very well by disseminating appropriate knowledge correctly. 20 (11%) disagree while 2 (1%) being undecided. The findings imply that all the staff should work towards achieving the best performance in national examinations and at most achieving national goals of education.

4.6.2 Influence of lectures alone on performance of national examinations

The findings also revealed that majority 80 (45%) disagree, 28 (21%) strongly disagree, 20 (11%) strongly agree, 30 (17%), 10 (6%) being undecided that lecturers' alone influence performance of national examination. It is clear that lecturers and other stakeholders including subordinate staff should cooperate and work towards a common goal of influencing positively performance of automotive students at national examination.

4.6.3 Setting of goals at all levels of operations influence performance on national examinations

Majority 78(44%) agree and 18 (10%) strongly agree that setting of goals at all levels of operations in the institute enhances performance in national examination while 36 (20%) disagree and 36 (20%) strongly disagree. It implies that setting of goals is very paramount in establishing a strong base towards achieving the best in national examination to improve lives of students at whole. It is important to set goals that are achievable through measureable terms that are defined. Few who disagree and strongly disagree should be made to realize the importance of setting goals and achieving the goals.

4.6.4 Recognizing abilities of all the staff by management contribute to improved performance in national examinations

In this statement majority 105(59%) agree and 32 (18%) strongly agree that setting of goals at all levels of operations in the institute enhances performance in national examination while 36 (20%) disagree and 36 (20%) strongly disagree. It implies that setting of goals is very paramount in establishing a strong base towards achieving the best in national examination to improve lives of students at whole. It is important to set goals that are achievable through measureable terms that are defined.

4.6.5 Suppliers influence students' examination performance

The findings also revealed that majority 116 (65%) agree that suppliers influence students' examination performance followed by 37 (21%) who strongly agree and contrary to 15 (8%) who disagree while 7(4%) strongly disagree and finally 4 (2%) being undecided on suppliers influence. The other academic materials influence performance. The earlier the learning materials are provided the better the performance of national examinations.

4.7 Principle of continuous improvement on performance of national examinations

Table 4.7: Principle of continuous improvement

Statement	SA	A	U	D	SD
Quality management system	16	130	0	20	12
principle of continuous improvement influence positively performance in national examination	(9%)	(73%)		(11%)	(7%)
There has been significant improvement of national examination performance from the period the institute attained ISO 9001:2008 Certified status	132	25	1	5	15
	(74%)	(14%)	(1%)	(3%)	(8%)
There has been no significant improvement of national examination performance from the period the institute attained ISO 9001:2008 Certified status.	9	10	6	32	111
	(5%)	(6%)	(6%)	(18%)	(62%)
Quality management systems audit contribute to improvement of national examination performance	25	120	6	7	20
	(14%)	(67%)	(3%)	(4%)	(11%)
Determine the causes of poor performance and addressing them	40	70	60	2	6

improves performance in national examination	(23%)	(39%)	(34%)	(1%)	(3%)
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4.7.1 Quality management system principle of continuous improvement influence positive performance in national examinations

From table 4.7, the findings revealed that majority 130(73%) agree, followed by 20(11%) who disagree that quality management system principle of continuous improvement influence positively performance in national examination. 16 (9%) strongly agree while 12 (7%) strongly disagree. It implies that office of the quality assurance plays a very crucial role in ensuring that performance of every worker in a position to realize strengths and weakness that can be curbed to improve performance in national examination.

The findings implies that ISO certification status plays a very crucial role in offering quality education that meet the global demands of education scholars and every presentation of academic discipline.

4.7.2 Significant improvement of national examination performance from the period the institute attained ISO9001:2008 certified status

Further more majority 132 (74%) followed by 25 (14%) agreeing that there has been significant improvement of national examination performance from the period the institute attained ISO 9001:2008 Certified status. A few 15 (8%) strongly disagree about ISO certifications status with 5(3%) disagreeing. Only 1 (1%) was undecided. It implies ISO certification enhances national examination performance.

4.7.3 No significant improvement of national examination performance from the period the institute attained ISO9001:2008 certified status

Further more, the findings revealed that there has been a strong significant improvement of national examination. Majority 111 (62%) strongly disagree followed by 32 (18%) who

disagreed, 6 (3%) being undecided. There are few who have not followed ISO certification with 9 (5%) strongly agreeing and 10 (6%) agreeing. Once again this reveals that ISO certification is a factor of performance in national examinations.

4.7.4 Quality management systems audit contribute to improvement of national examination performance

Majority 120 (67%) of the respondents' agreed with 25 (14%) strongly agreeing that quality management systems audit contribute to improvement of national examinations performance. However 20(11%) strongly disagree with 7 (4%) disagree about the audit system. 6 (3%) being undecided. The findings imply that auditing plays a crucial role in terms of exam performance.

4.7.5 Determining the causes of poor performance and addressing them improves performance in national examinations

Majority 70(39%) agree with, 40 (23%) strongly agree that determining the cause of poor performance and addressing them improves performance in national examination. Very few 6 (3%) strongly disagree while 2 (1%) disagree. However 60(34%) were undecided. This group does not know that determining the causes of poor performance and addressing them improves performance. It is important to identify and address challenges to improve performance in national examinations.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 introduction

This chapter presents a summary of some of the key findings from this research, conclusions and recommendations. The conclusions and recommendations drawn were focused on addressing the purpose of this study which was to investigate the influence of quality management systems on automotive engineering students' performance in national examinations at public Technical Institutes in North Rift Kenya. From the data collected and analyzed, the following are summary of the findings, conclusions and recommendations.

5.2 Summary of the study

The study was to investigate the influence of quality management systems on automotive engineering students' performance in national examinations at public Technical Institutes in North Rift Kenya.

5.3 Summary of findings

5.3.1 Customer focus on national examination performance

This study revealed that quality management systems have significant influence on automotive engineering students' performance in national examinations at public Technical Institutes in North Rift Kenya. It revealed that addressing of students' needs and expectations influence their performance in national examinations. It further revealed that good student/lecturer relationship enhances examination performance.

5.3.2 Leadership principle on national examination performance

On leadership the study found out that good leadership that communicates visions, sets goals and deploys resources in good time is a contributor to improved performance of automotive engineering students in national examinations. This agrees with (Parshardis 2008) who

concluded that effective communication enhances learning and helps students to know the degree of their achievement towards expected goals. Transfers and demotions of lecturers were found to affect negatively the performance of examinations.

5.3.3 Involvement of people (teamwork) on national examination performance

This research also found out that involvement of all staff (teamwork) lecturers and non-teaching staff not only contribute to better performance of examinations but also enhances the conducive learning environment. The study also revealed that setting of goals at all levels of operation in the institute helps to foster better performance of national examinations. Recognition of abilities of all staff members by management also contributes to good examination performance. Timely supply of resources is also a factor in improving performance in national examinations.

5.3.4 Principle of continuous improvement on national examination performance

The study also reveals that since the institutions attained ISO: 9001:2008 certification status there has been a great improvement on performance of automotive engineering students in national examinations.

5.4 Conclusion

Quality management systems implemented in technical training institutes in North Rift Kenya has influenced positively on the performance of automotive engineering students in National examinations. The four principles of quality management systems which include customer focus, leadership, involvement of all staff (teamwork) and continuous improvement that were investigated showed that they have positive influence on performance of automotive engineering students in national examinations.

The national government should ensure all learning institutions adopt quality management systems to improve service delivery and enhance the performance in examinations.

5.5 Recommendations

The researcher recommends that all training institutions should adopt quality management systems, resources should be allocated for capacity building on leadership to be done on yearly basis. The management teams of the training institutions should foster the spirit of teamwork for improved performance in examinations and better service delivery.

The management teams in the institutions should create benchmarking forums at regional and national levels regularly.

5.4 Further research

This study is recommending further research outside the scope of this research, influence of quality management systems on performance of automotive engineering students in national examinations.

REFERENCES

- Adeyemo, S.A. (2012). *The relationship between effective classroom management and students' academic performance*. European Journal of Education. 4 (3); Ocean Publication.
- African Union (2007). *Strategy to revitalize technical and vocational education and training (TVET) in Africa*. Addis Ababa: Final Draft. Bureau of the Conference of Ministers of Education of the African Union (COMEDAF II+)
- Alison, L.F.C. and Y. Hon Keung, 2011. *Principals and teachers opinion of quality management: In Hong Kong primary schools*. Quality Assurance in Education, 19(2): 170-186 Education, vol 5 No. 1
- Arumugam, V., K.B. Ooi and T.C. Fong, 2008. *TQM practices and quality management performance: An investigation of their relationship using data from ISO 9001: 2000 firms in Malaysia*. The TQM Magazine, 20(6): 636-650.
- Ayeni, A.J. (2010). *Teachers' instructional task performance and principals' supervisory roles as correlates of quality assurance in secondary schools in Ondo State*. Doctoral Dissertation, Obafemi Awolowo University, Ile-Ife Nigeria.
- Bhuwane, T. (2006). *Reforming technical and vocational education in Sub-Saharan Africa: Case studies of Ghana - Mauritius - Tanzania and Zimbabwe*. Dakar, Senegal: BREDA.
- Bobby, M., J. Green and W. Kenneth, 2009. *Enhancing performance through goal setting, engagement, and optimism*.
- Cheng, Y.C, and Tam. W.M. (1997), *Multi-models of quality in education*. Quality Assurance in
- Cruickshank, M. (2003) *total quality management in the higher education sector*. TQM and Business Excellence vol 14 No. 10.

Cua, K.O., Mc Kone, K.E., Schroeder, R.G. (2001), "*Relationships between implementation of TQM, JIT, and TPM and manufacturing performance*", Journal of Operations Management, Vol. 19 pp.675-94

Darling-Hammond, L. & Berry, B. (2000). Recruiting teachers for the 21st century: The foundations for educational equity . Journal of Negro Education.3, 254-279

Day, C., P. Sammons, D. Hopkins, A. Harris, K. Leithwood, Q. Gu, E. Brown, E. Ahtaridou and

A. Kington, 2009. The impact of school leadership on pupil outcomes. Research Report DCSF-RR108, Department for Children, Schools and Families, London. Industrial Management & Data Systems, 109ISS(7): 943-956

Dragoni, L. and M. Kuenzi, 2010. *The impact of a climate for learning: Boundary conditions and facilitators*. Paper Presented at the Annual Academy of Management Conference, Montreal. Educational Quarterly, 47(1): 18-70.

Feigenbaum, A.V., (1994) "*Quality education and America's competitiveness*", Quality Progress, Vol. 27 No. 9, , pp. 83-4.

Goldberg, J.S., and Cole, B.R, (2002) *Quality management in Education: Building excellence and equity in student performance*. Quality management journal, vol 9 No. 2

Harold, K. and W. Heinz, 2010. *Essentials of management: An international perspective*. New Delhi: Tata McGraw Hill.

Hellriegel, D; Jackson, S.E; Slocum, J; Staude, G ; Trevor, A.; & Theun., O. (2009). *Management*. Oxford University Press, South African Edition, Cape Town.

ISO (2008), '*Quality management and quality assurance – Vocabulary, ISO 8402*', International Organization for Standardization, Geneva

Kombo D. K. and Tromp, D. L. A. (2006). *Proposals and Thesis Writing: An Introduction* 2nd ed. Nairobi: Paulines Publishers Africa.

Lewis, R.G. and Smith, D.H., (1994). *Total Quality in Higher Education* , St Lucie Press, FL.

Mbiti, D. M. (2007).*Foundations of School Administration (Ed.)* . Nairobi: Oxford University Press East Africa Ltd.

Mugenda, A. G. & Mugenda, O M. (2003). *Research methods. Quantitative and qualitative approaches*. Nairobi: Acts press. Republic of Kenya, 2014/2015 Estimates of Recurrent Expenditure VOL II, Government Printer

Mugenda, and Mugenda (2003). *Educational Research methods* .Oxford university press, Nairobi

Oduwaiye,R.O, Sofoluwe,A.O & Kayode.(2012).*Total quality management and students academic performance in Ilorin metropolis secondary schools, Nigeria*. Education Journal, Vol.1.No.1. April 2012.

OECD (2011) *Strong Performers and Successful Reformers in Education: Lessons From Pisa for the United States*

Oluchemi, F.O (2012).*Principals organizational management and students' achievement in secondary schools in Ekiti-State, Nigeria*.Singapore Journal of Business Economics and management studies. Vol2, No.2 pp76—84.

Ooi, K.B., V. Arumugam, M.S. Safa and N.A. Bakar, 2007. HRM and TQM: *Association with job involvement*. Personnel Review, 36(6): 936-996. International Journal of Education and Practice, 2015, 3(2):66-79 s75

Orodho, A.J (2014). *Policies on free primary and secondary education in East Africa: Are Kenya and Tanzania on course to attain education for all (EFA) by 2015?* International Organization of Scientific Research (IOSR) Journal of Humanities and Social Science (IORS-JHSS) .Vol 19, Issue 1, VerV (Jan, 2014) pp11-20,e-ISSN:2279-0837 p-2279-0845.www.iosrjournals.org .

Orr, M.T. and S. Orphanos, 2011. *How graduate-level preparation influences the effectiveness of school leaders: A comparison of the outcomes of exemplary and conventional leadership preparation programs for principals.*

Parshiaridis, G., 2008. *Toward knowledge base for school climate in Cyprus's schools.* International Journal of Education Management, 22(5): 399-416.

Pheng, L.S. and Jasmine, A.T., (2004) *Implementing Total Quality Management in construction Firms.* Journal Of Management Engineering, Vol 20 No 1

Republic Of Kenya (2012). *Ministry of Higher Education, Science and Technology. Technical and Vocational Education and Training (TVET) Policy.* Published By R.O.K 2012.

Republic of Kenya (2012a). *Sessional Paper No.14 of 2012 on realigning education and training to the Constitution of Kenya 2010 and Vision 2030 and beyond.* Ministry of Education Science and Technology. Nairobi. Kenya.

Republic Of Kenya, (2012). *Ministry of Education and Ministry of Higher Education, Science Technology ; Sessional Paper No14b. Of 2012 .A Policy Framework for Education and Training.* Reforming Education and Training in Kenya.

Republic of Kenya. (2005a) *Sessional Paper No. 1 on Policy Reforms for Education, Training and Research: Meeting the Challenges of Education Training and Research in the 21st Century.* Ministry of Education, Science and Technology (MOEST Nairobi: MOEST.

Republic of Kenya. 1976. *The Report of the National Committee on Educational Objectives.* Nairobi: Government Printer

Roeske, J. (2003). *Skills training strategies to combat worst forms of child labour in the urban informal economy: Ghana Country Study.* Marseilles, France: International Programme on the Elimination of Child Labour (IPEC)

Seymour, D.T., (1992) *On Q: Causing Quality in Higher Education*, Macmillan, New York, NY.

Shiundu JS, Omulando JS (1982). *Curriculum Theory and Practice in Kenya*. Nairobi: Oxford University Press

Shiundu, J.S.; Omulando, S.J. 1992. *Curriculum theory and practice in Kenya*. Nairobi: Oxford University Press.

Sogomo, B. K. (2000).”*Keynote address to Principals of Training Teacher Colleges on teacher education.*” Paper presented during a workshop for Principals of Teacher Training Colleges in Kenya. Nairobi.

Subrata, D. and Anindya,G. (2009) *Quality assurance in textile education*.

<http://Compuscorner.fibre2fashion.com> (April 2010)

Teh, P.L., C.C. Yong, V. Arumugam and K.B. Ooi, 2009. *Does total quality management reduce employees “ role conflict?* *Industrial Management and Data Systems*, 109(8): 1118-1136.

Teh, P.L., K.B. Ooi and C.C. Yong, 2008. *Does TQM impact on role stressors? A conceptual Model: Industrial Management and Data Systems*, 108(8): 1029 - 1044.

Thompson, J.F. 1973. *Foundations of vocational education: social and philosophical concepts*. Englewood Cliffs, NJ: Prentice Hall.

U.S.A.I.D, 2011.*Kenya in action: United States agency for international development*. Available from <http://kenya.usaid.gov>.

Wiklund H.K, et al (2003). *Innovation and TQM in Swedish higher education institutions Possibilities and pitfall*.The TQM magazine, vol 15 No. 2.

Young, G.J., et al (1997) *Implementation of Total Quality Management: facilitators and barriers Veterans’ affairs Health Searvice research*, vol 14 No.322 India

Yusuf, Y., A. Gunasegaram and G. Dan, 2007. *Implementation of TQM in China and Organizational performance: An empirical investigation*. Total Quality Management, 18(5): 509-530.

Zakuan, N.M., S.M. Yusof, T. Laosirihongthong and A.M. Shaharoun, 2010. *Proposed Relationship of TQM and organizational performance using structured equation modeling*. Total Quality Management, 21(2): 185-203.

APPENDICES

APPENDIX I: A LETTER OF TRANSMITTAL

Ndiwa Philip Pkenden
P.O Box 3717-30200
KITALE
Mobile : 0721552991

29th April, 2015

The Secretary for National Council of Science and Technology (NCST)
P.O BOX.....,
NAIROBI.

Thro'
The Course Director,
Kitale Extra Mural Center /University Of Nairobi

Dear Sir/Madam

RE: PERMISSION TO CONDUCT RESEARCH

I am a student in the University of Nairobi pursuing a Master of Arts degree in Project Planning and Management. I am undertaking research titled influence of QMS on National examination performance in technical institution in North Rift, Kenya .I hereby apply for a research permit to conduct a research entitled influence of quality management systems on performance of automotive engineering students in National Examinations in North Rift Kenya.

Yours faithfully,

Ndiwa Philip Pkenden

APPENDIX II: QUESTIONNAIRE

I am a student in the University of Nairobi pursuing a Master of Arts degree in Project Planning and Management. I am undertaking research titled influence of QMS on automotive students' performance in National examination at public technical institutes in North Rift, Kenya. I kindly request you to participate in this study and your responses to items in the questionnaire will be treated with uttermost confidentiality, and will not be used for any other purposes except for this study.

INSTRUCTIONS

i) Respond to all items by putting a tick [] corresponding to the choice of the answer you have chosen.

SECTION (A): BACKGROUND INFORMATION

Indicate your:

1) **Gender**

Male [] Female []

2) **Age bracket.**

20-24years [] 25-30 years [] 31-35 years [] 36-40 years [] Over 40 years []

3) **Level of Education**

Diploma [] Higher National Diploma [] Bachelors Degree [] Masters Degree [] PhD []

other specify.....

4) **Number of years you have served as a lecturer or non teaching staff in this institution.**

Less than 5years [] 5-10 years []

11-15years [] Over 15 years []

5) Appropriate designation category

- Principal []
- Deputy Principal []
- Registrar []
- Dean of students []
- Industrial liaison officer []
- Head of Department (HOD) []
- Examination officer []
- Management Representative []
- Performance contracting coordinator []
- Lecturer []
- Non teaching staff []

SECTION B: Customer focus principle influence on National examinations performance.

Indicate your level of agreement on customer (students) focus influence on National examination performance of automotive engineering students in technical institutes.

KEY i) SA: Strongly Agree ii) A: Agree iii) U: Undecided iv) D: Disagree v) SD: Strongly Disagree

Statement	SA	A	U	D	SD
Students' needs influence their performance in national examinations.					
Students' expectations influence performance in national examinations					
.Students' feedback influence					

performance in national examinations.					
Good lecturer/student relationship influence performance in national examinations.					
Addressing students' problems promptly influences their performance at national examinations.					

SECTION (C) Leadership principle influence on national examination performance.

Indicate your level of agreement on the extent leadership in the institute influence performance of automotive engineering students in National examinations.

Statement	SA	A	U	D	SD
Management styles to large extent influence students' performance at national examinations.					
Communication of vision enhances students' performance in national examinations.					
Goal-setting influence students' performance in national examinations					
Timely deployment of resources enhances students' performance in national examinations.					

Transfers and demotions of lecturers affect negatively students' performance in National Examinations.					
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SECTION (D) The involvement of people principle influence on performance in

National examinations.

Indicate your level of agreement regarding the influence of involvement of people principle influence of automotive engineering students in National examination.

Statement	SA	A	U	D	SD
Lecturers and non-teaching staff contribute to performance of national examinations.					
Lecturers alone influence performance of national examinations.					
Setting of goals at all levels of operations in the institute enhance performance in national examinations.					
Recognizing abilities of all the staff by management contribute to improved performance in national examination					
Suppliers influence students' examination performance					

SECTION (E) Principle of continuous improvement and performance of national examinations.

Indicate your level of agreement on principle of continuous improvement on performance of automotive engineering students in national examinations.

Statement	SA	A	U	D	SD
Quality management system principle of continuous improvement influence positively performance in national examinations					
There has been significant improvement of national examination performance from the period the institute attained ISO 9001:2008 Certified status.					
There has been no significant improvement of national examination performance from the period the institute attained ISO9001:2008 Certified status.					
Quality management systems audit contribute to improvement of national examinations performance.					
Determining the causes of poor performance and addressing them improves performance in national examinations.					

APPENDIX III WORK PLAN

Activity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Proposal writing											
Proposal defense											
Piloting of Research data collection tools											
Data collection and analyses											
Project draft											
Corrections											
Project defense and Submission											

APPENDIX IV: BUDGET

ITEM QUALITY	QUANTITY UNIT	PRICE (KSH)	TOTAL AMOUNT(KSH)
Foolscaps	8 Reams	400	3,200
Note book	1	150	150
Flash	1	2,000	2,000
Binding , Typing and Printing	Approx 12 x70 = 840 pg	840x80	67,200
Photocopying	1200 pg	1200x 3	3,600
Computer and Internet Services	2 months	1000	2000
Travel	5x1000	5000	5000
Subsistence for 2 months Remuneration of Research Assistants	1	10,000 per month for 1months	10,000
Grand Total			93150

APPENDIX V: Table for Determining Sample Size

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970