

Analysis of Influence of Total Quality Management on Performance of Parastatals in Kenya

Oduor Juma Paul¹ | Donald Indiya. Gulali¹ | Jairo Kirwa Mise¹

¹Maseno University

Received 03-09-2024

Revised 05-09-2024

Accepted 06-10-2024

Published 09-10-2024



Copyright: ©2024 The Authors. Published by Publisher. This is an open access article under the CC BY-NC-ND license (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

Abstract:

From competitive and survival perspectives, the ability to identify dynamics in an environment and timely respond by choosing convenient management approaches, is vital in prosperity of parastatals. Universally, Total Quality Management is one of emerging management trends that ensure this. There is limited evidence linking these in Africa, and specifically in Kenya. From several performance reports including 2021/2022, performance of some parastatals in Kenya is below average (2.40). They register low performance regularly thus implying inadequate total quality management practices. Past studies investigated effect of individual constructs of total quality management leaving composite effect unattached. This study sought to analyze impact of total quality management on performance of parastatals and was guided by resource based View theory. Census approach was applied with 34 as target population, 102 respondents, out of which 12 respondents were for sampling after cluster technique and 86 for actual study. Questionnaires were administered for data harvesting and were analyzed using descriptive statistics. Content analysis ensured validity while Cronbach's alpha tested reliability. Reliability results shows coefficient of 0.818 implying that the instrument was reliable. The findings reveal that TQM had 71.7% significant effect on performance. The study concludes that total quality management has a significant and positive effect on the performance of parastatals in Kenya and recommends that parastatals in Kenya should embrace as a useful strategy for enhancing performance.

Key words: Total Quality Management, Parastatals and Performance

Introduction:

Background to the study:

Globally, performance in management is becoming increasingly a concern with regardless of sector and organizations adjusting from the traditional approach of annual appraisals. The benefits of performance management are vital than ever after years' worth of continued disruptions and adjustment during the pandemic Gusman Nawanir (2016). It entail assessing strengths and identifying

current weaknesses but more importantly, finding possible remedy to weaknesses for further growth and development. According to Donna (2021), traditional model of performance involved annual appraisal, where staff and managers would sit down to review performance perhaps once a year, after its design in 1970s, a lot has evolved as corporations gradual move to constructive and continual ways. In modern time weekly or monthly catch ups timely or regular feedbacks, target setting and constant for review of progress and identify

opportunities for learning and development are the orders of the day in performance Richard (2012).

According to Julia (2007), performance is the ability of an organization to reach its goals and optimize results. It is how well an organization is doing and how much of its daily tasks and set objectives are achieved. It could be the ability to effectively use resources and processes to achieve its objectives. Lebars and Esuske (2006).

Kaplan identified Key Performance indicators for a parastatals plan that express what it ought to achieve and by when. They're quantifiable, outcome based statements you'll use to measure if you're on track to meet your objectives. He proposes 5 -7 KPI to manage and track the process of the plan. The anatomy of a structured KPI include efficiency and effectiveness examined through measure of targets e.g. time, data source, financial KPI to gauge (revenue, net profit,) operational KPI and customer KPI. Studies shows that private sector seem to be embracing this concept in daily operations for both competitiveness and survival purposes, however public entities especially parastatals lag behind. KPIs modalities and applications have not been comprehensively discussed.

From survival point of view, every state corporation just like any other entity has to put in continuous efforts for its survival in the current impulsive and competitive economy. It requires alignment of strategic and operational objectives and parastatals set activities in order to manage performance. In recent years, other organizations attempted to manage organizational performance using balance scorecards methodology where performance is tracked and measured in multiple dimensions such as financial performance, customer service, social responsibility, employee stewardship, performance measure system improvement in a parastatal and parastatals engineering.

Parastatals just like other business entities are confronting expanding pressure to accomplish and keep up functional distinction to advance their general performance and competitiveness

Gheradini et al (2007); Kirkham et al (2014). They are required to embrace and put into action and new operation management concepts and trends that include TQM in order to continue in existing Zakuan et al (2010).

Total Quality Management is broad thus defined differently by authors. Quality in parastatal context refers to how consistent a service meets the pre-determined specifications Flynn et al (1999). The Chartered Quality Institute (2015) defined TQM as organizational management philosophy which enables managers to meet stakeholder needs and expectations efficiently and effectively, by not compromising ethical values. The American Society for Quality looks at TQM in parastatal context refers to a management approach to long-term prosperity through customer satisfaction. It's an approach to improve competitiveness, effectiveness, and flexibility of an organization for the benefit of all stakeholders Ahire & Dreyfus, (2000).

The quality movement emerged early in Second World War in Japan. This occurred when Japanese products and services were discovered substandard in quality. Twenty years later, Fregenbaum, Edwards, Philip, Crosby Joseph and, Juranh, Genachi looked at the quality in broader realm of reliability, engineering and quality assurance. Garvin (1987) states that Quality traditionally meant quality assurance which stresses the need for conformances to specification. TQM practices integrate all organizational functions such as marketing, finance, design, engineering, and production, customer service, to focus on meeting customer needs and organizational objectives Adam, Flores & Macias, (2001).

According to Penrose (2009), TQM is practically impossible not unless the organization adopts Resource Based View theory (RBVT). Resource Based View theory urges the possession of both human and non-human resources, that the resource has to be valuable, difficult to imitate, rare and one that cannot be substituted Penrose (2009).

Recent researchers have found TQM implementation as a momentous association with

parasatals performance. However, others have found no, or negative association as some got ambiguous correlation between TQM and performance thus creating gaps. Nichi (2012); Manjurath and Kumar (2013); Esin and Hilai (2014); Norah (2015); Njeri (2016); Therese (2017); Rula (2017); Akelo (2017); Vedant et al (2018); Yuni (2019); and Tahmeena et al (2021) found significant positive results. Manifold (2017) had mixed results while Ikay and Aslan (2011) found statistically insignificant difference between quality certified and non- quality certified firms in terms of performance besides, This mixed finding leads to the question about the compatibility of the TQM and performance relationship, as well as which TQM elements can contribute to success of this association. Additionally, none of these studies investigated how TQM concept impacts performance of parastatals in Kenyan dimension. This created a knowledge gap that this study intended to fill by finding out effect TQM on performance of selected parastatals in Kenyan perspective.

Thus parastatals in both manufacturing and service sectors are constantly under pressure to practice lean by being cost effective, delivering efficiently say excellent customer service, faster response times and valuable support to their customers Simon (2016). In the same context, governments around the world want to deliver better services like in private sector. They know that impatient electorates expects to see change and fast but funds required to meet such expectations are enormous-particularly in many developed economies where populations are aging and public sector's productivity has not kept pace with that of private sector Nina (2006). A number of management concepts related to efficiency and effectiveness exist today; in this regard, lean was adopted for current study to check the strength and form of relationship between independent and the dependent variables. In addition, lean was adopted due to its appropriate elements/principles which include identify value, value streaming, create pull flow and establish pull.

Studies have not clearly articulated modalities and applications of these in parastatals and as a

Parastatals are state corporations and corporate body established by Act of parliament or under state corporation Act. In Kenya its under section 3 of the state corporation Act, Cap 446, or by an Act of parliament under the company Act cap 486 where the government controls all or majority of the shares including all their subsidiaries. They originate from 19th century at the time of Kenya Railway line during Imperial British East Africa Company (IBEA), agriculture commodity related regulatory and marketing regulatory being the first in place followed by others after independence in 1966.

Globally, performance of state owned enterprises is impressing in Europe, America and other developed continents, and a few in Africa. In Africa, majority are not doing well for decades Kenya inclusive, IMF 2021/2022 report. In Kenya, there are 248 state corporations headed by inspector general (state corporations) they are classified into eight broad functional categories based on mandate and core functions say financial, regulatory, training and research service, public universities regional development authorities, commercial/manufacturing, tertiary education and training National Treasury Report Financial Year (FY) 2019/2020. Majority of these are concentrated in transport and energy sectors performing strategic functions. In FY 2019/2020, these commercial enterprises accounted for 85% of total revenues and 89 % of total liabilities in the State Corporation sector (SC). These entities have strong social mandates to deliver core services to the citizens including provision of goods and services. Initially depended on government transfers and they are expected to generate additional resources for sustainability from the public.

According to several national treasury and planning reports, these state agencies have to beef up due to their low performances. To quote a few reports, in FY 2021/2022 report, the analysis of the fiscal risk parameters of majority state corporations found that the risk primarily relate to the liquidity

challenges resulting from unfavorable revenue and economic performance (below average 2.40). The analysis revealed that 11 of these SCs are loss – making thus liquidity risk, implying that they may be unable to service short –term obligations when they’re due. Subsequently 14 SCs have accumulated sizeable arrears, totaling to Kshs 211 Bn (2.2% of GDP). Generally, the analysis revealed that there was a marginal decline in both financial and non-financial performance of these parastatals in 2019/2020 FY compared to 2018/2019 equally a decline was noted in 2020/2021, 2021/2022 FY and even other several previous financial years. In management context, this is a critical challenge that has to be investigated as literature indicate that similar challenges have resulted to demise of a number of organizations not only in Kenya but also Africa and world at large.

Objectives of the study:

General Objective

The main objective of this study was to establish the impact of TQM on performance of Parastatals in Kenya.

Specific objectives Specifically, the study aimed at

Establishing the relationship between Total Quality Management and Performance of parastatals in Kenya.

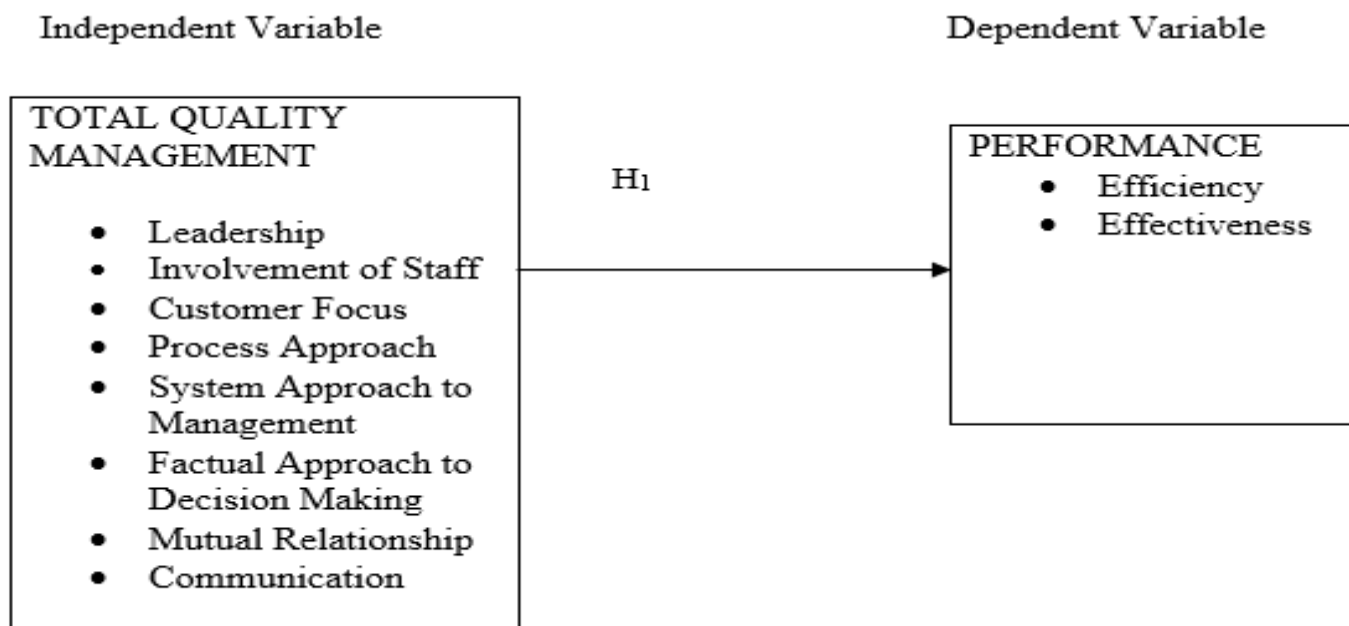
Research Hypothesis

The following Hypotheses guided the study:

H₁- There is no relationship between Total Quality Management and Performance of performance in Kenya.

Conceptual Framework

Figure 1.0: Conceptual Framework on TQM and performance correlation.



Source: Adopted from John Krafcik 1988)

Resource Based View Theory (RBVT)

The resource based theory is the brain- child of Birger Wernerfelt (1984) and Penrose (2009). It propound that establishments should not only be concerned about achieving deliberate fit with the outside setting but also pay attention on enhancing their core capitals to generate and take up future

opportunities. It urges the possession of the resources which are valuable, difficult to imitate, rare and one that can’t be substituted. It has principally been used to examine performance within the commercial and noncommercial sectors, for quality practice and performance.

This theory states that the method in which resources are applied within an organization can create a competitive advantage, and that effective and efficient application of all useful resources can matter and determine the corporation's future preferably under Total quality management practices. Penrose (2009) proposed a model on the effective management of firms' resource, diversification strategy and productive opportunities. Penrose publication was the first to propose conceptualizing a firm as a coordinated bundles of firms resources and address a tackle how it can achieve its goals and strategic behavior. In RBT model, resources are given major role of assisting a firm in competitive advantage through quality products and services. The theory has been redeveloped and redefined through resource and the evidence that supports it. This theory prescribes that parastatals position themselves strategically based on their resources and capabilities quality products and services output. Within RBT, the key terms include tangible resources, intangible resources and capabilities; quality and satisfaction.

The theory has two underlying assumptions: The assumptions on RBT related to the explanation on how firm-based resources generate sustained competitive advantage and why some parastatals may continually outperform others by gaining higher competitiveness Helfat and Peteraf (2003). The bundles of resource owned by a parastatal are different from each other. One of the cornerstones of RBT is the heterogeneity of resources and capabilities in a population of a state corporation, which differentiate the competitive advantage of each other firm. Heterogeneity of resources assumes that a firm process unique resource in a specific situation can potentially be more skilled to perform particular activities and create competitive advantage. The complexities of trading resource across parastatal may create persistence in differences in resources (the assumption of resource immobility). It assumes that organizational characteristics are not merely modified. A parastatal needs to connect its orientation if it is to succeed and achieve sustainable competitive advantage. Dominant paradigm in determining a parastatal's profit

potential such as Porters (1989) views, suggested that a parastatal internal factors such as resource and capabilities, a certain extent contributes to a parastatal's profits but at the same time considering Total quality management through customer satisfaction.

Empirical Studies Review.

TQM and Performance

Yuni et al (2019) analyzed influence of TQM towards performance and primarily focused on effect of TQM towards organization performance of SMEs service sector in Selangor, Malaysia. Four critical elements of TQM were used namely customer focus continuous improvement, strategically based and total employee involvement. Necessary data was harvested from managers/ owners of service sector SMEs in Selangor, Malaysia and used questionnaire to collect data. The results show positive significant effects on organizational performance. However the relationship of constructs of predictor and criterion variables were not comprehensively analyzed.

Therese (2017) in a study on TQM and performance: The role of organization support and co-worker support aimed at exploring the relationship between the extent of TQM and reliability management and moderating effect of co-worker support and organization support on the TQM/ performance relationship South Africa. The study used questionnaires for survey developed and distributed to sample of firms selected from the motor vehicle parts and accessories South Africa industry. From analyzed data, the findings shows strong positive relationship of the main variables. It also found out that co-worker support and organization support moderated the relationship between implementation and organization performance. Despite the fact that Therese (2017) studied TQM, She limited the study to implementation, the role of organization support and co-worker were not identified and described.

In a study based in Indian, Vedant et al (2013) tested impact of TQM on organizational performance. This was a case of manufacturing and

service industry with main aim of determining impact of TQM on organizational performance in manufacturing and service industry. It was conducted in manufacturing and three service companies in North India on selected companies among those listed in India confederation of industries (CII). Data had a combination of both primary and second data sources with a focus on examining the extent of TQM implementation in accordance with Indian industries. Primary data was collected from 8 small and medium sized Indian SMEs manufacturing and service companies. The data was classified into two categories say managers and workers. The findings show that all hypotheses were positively significant and consistent with previous studies and hence showing the positive impact of TQM on performance. None the less, sample method was not clear thus subjecting the finding to bias. Additionally, it majorly applied on Indian manufacturing and service sector perspective.

Nimra (2022) while exploring the impact of TQM initiative on construction industry projects in Pakistan established that continuous improvement has insignificant effect on the performance on Construction Company which is also inconsistency with other studies. The researcher further expressed that staff commitments, employees' involvement have positive impact of performance. However the constitution of staff commitment and employee effectiveness is still contestable This was after applying questionnaires to top level position managers in 600 construction firms in country and administering regression analysis.

Additionally, Rash (2021) studied the influence of soft and hard TQM on quality performance and patient's satisfaction in health care in Jordan. A multi item questionnaire was prepared to gather primary data from a sample 312 medical employee in private hospital in Jordan and found mixed results. Soft TQM components had positive influence on quality performance, patient satisfaction showed positive but a lesser extent compared to soft TQM, whilst effect of hard TQM on patient satisfaction was not significant,

Looking at impact of TQM on corporate sustainability, Jawad (2020), investigated the likely correlation between the two variables through mediating effect of knowledge management. This was in context of medium and large sized organizations from manufacturing and service within Pakistan. The design comprised of questionnaire, and theoretical model tested through SEM. Although the findings show a significant positive impact on corporation sustainability and knowledge management, the same results indicate insignificant relationship with knowledge creation and additionally, knowledge had insignificant relationship with environment sustainability.

Zakiah (2020) contributed to this body of knowledge by examining TQM practices and operational performance in manufacturing companies. Purposely, the study sought to assess the relationship between TQM practices and operational performance in manufacturing industry in Malaysia. Five dimensions of TQM practices that considered were leadership, customer satisfaction, and relationship, human resource focus, strategic planning, and development and supplier quality management. A qualitative research method was employed and to gather data, survey questionnaire were randomly distributed to manufactures in Johor. The study finding shows that level of TQM practices and operational performance was at high level. Four of the five dimensions of TQM practices had significant positive relationship with performance. One construct had insignificant result thus giving mixed result. However this was a qualitative study that is hardly generalized.

Manjunath and Kumar (2013) undertook an empirical study on productivity and quality, a study at General Motors in Nigeria. Simple random sampling was used to collect the required information through structured questionnaire by using five point likert scales. Descriptive analysis and above technique were administered in analyzing the data the findings showed a significant relationship between TQM implementation and high productivity and quality. The descriptive analysis reveals that the Top

management actively participates in quality management activities. Conclusively, they noted that although many organizations may not use the term TQM anymore, it is still very much part of most business thinking. TQM is seen as a way in which an entity can add value to its product and to gain competitive advantage over its rivals. The finding shows that there is a significant positive correlation between the variables (implementation of TQM and high productivity and quality). Therefore all the TQM parameters considered in this study tested positive thus related to high productivity and quality. General Motors as a case study was not wide enough to generalize the finding. Additionally, simple random sampling was inappropriate considering that it is subjective in nature as it originates from probability sampling where the researcher has a significant measure of control over who is selected and selection methods for choosing.

The retrospective studies reviewed shows that the association between TQM and performance has been explored. To note a few, Yuni (2019); Esin and Hilai (2014); Nichi (2012) Njeri (2016); Zkaiah (2010); Tahmeena et al (2021); Norah (2015); Akelo (2017); Manjurath and Kumar (2013) did this survey. They were similar in sense that they all undertook studies on relationship between TQM and organization performance and found significant positive results. In contrary, they are unique in terms of their respective area of studies, constructs, research designs and slight findings though positive. However similar studies conducted in the same context showed contrary findings, either insignificant positive or mixed findings. For instance, Manifold (2017) had negative results; Nurhayati (2018) gave insignificant positive results. Wahyu et al., (2022), showed insignificant positive findings. Nimra (2022) study supported Rash (2021) study shows negative finding. Jawad (2020), results shows mixed finding as some constructs tested positive while others tested insignificant. Zakiah (2020) had mixed findings, Ikey and Aslan had insignificant findings thus contrary recommendations resulting from mixed findings as shown above. Additionally, none of these reviewed studies established the

correlation between TQM and performance of parastatals in Kenyan context, thus creating a gap that a study on analysis of TQM and performance of parastatals attempts to fill.

Summary of Literature Gaps

From the empirical studies reviewed about TQM and performance, it's clear that indeed the association between TQM and performance has been studied. To note a few, by Yuni (2019); Therese (2017); Vedant et Manjurath and Kumar (2013) did this survey. They were similar in sense that they all undertook studies on relationship between TQM and organization performance and found significant positive results. In contrary, they are unique in terms of their respective area of studies, constructs, research designs and slight findings though positive. However similar studies conducted in the same context showed contrary findings, either insignificant positive or mixed findings. For instance, Manifold (2017) had negative results; Nurhayati (2018) gave insignificant positive results. Wahyu et al., (2022), showed insignificant positive findings. Nimra (2022) study supported Rash (2021) study shows negative finding. Jawad (2020), results show mixed finding as some constructs tested positive while others tested insignificant. Zakiah (2020) had mixed findings, Ikey and Aslan had insignificant findings thus contrary recommendations resulting from mixed findings as shown above. Additionally, none of these reviewed studies established the correlation between TQM and performance of all 34 commercial state agencies in Kenyan context thus creating a gap that a study on effect of TQM and performance of selected parastatals attempts to fill.

It is evident that extensive research has been conducted on TQM and performance. Nonetheless, most of the above studies administered a few principles and none applied all Eight principles in commercial state agencies. To note a few Rash (2021), Theresa (2017) and Jawad (2020) applied a few principles and in different dimensions.

Whereas these studies enriched the researcher's know how on the subject of TQM, lean and

performance, a further investigation on this relationship with all eight and five principles of TQM and lean respectively is imminent.

Methodology

A research design is the overall strategy chosen by researchers to integrate the different components of the study in a coherent and logical way thus ensuring that they effectively address the research problem Kerlinger (1979).

The study adopted a quantitative research design, on a positivism paradigm and had target population of 34 parastatals with a 102 respondents from which census survey was carried out. Three (3)

respondents per parastatal, say Human resource manager, Operations manager and Finance Manager, forming unit of observation. Four (4) parastatals each with three respondents were sampled. Data was collected by use of closed questionnaire to reduce mass data and applied. Cronbach’s alpha measured reliability a it is superior in measuring of internal consistency than test- retest or split halves approaches Carmines and Zellner (1979. The reason for opting for Cronbach’s alpha is that it was difficult to subject survey to respondents twice yet they are bosses (top management) and as explained by Sekaran (2000) in this case the study resorted to Cronbach’s alpha.

Table 3.1 Reliability Test Results

Constructs	Sample	Items	Constructs	Reliability coefficient
Total Quality Management	12	32	8	.815
Parastatal Performance	12	6	2	.783
Total	12	58	14	.8

The findings indicate that there was an overall Cronbach reliability coefficient of 0.818, which is above the threshold of 0.7 implying that in overall, the instrument was reliable. Specifically, each of the variable had a reliable coefficient, for instance, total quality management had a coefficient of 0.815 which indicates instrument reliability. These findings on instrument reliability show that the tool was reliable.

To tackle the validity of data tool, content validity was used this study. Content validity is the ability of the data tool and to represent the content of the given construct De Vaus (2002). To tackle this concern, the researcher approached three experts from the school of business and economics at Maseno University who examined and give appropriate comments.

Data Analysis

Mugenda and Mugenda (1999) states that data analysis is the process of bringing order,

structure and meaning to the mass of information gathered. The data collected was quantitative in nature and after collection; data was coded according to the theme researched on. Coding is labeling and organizing of quantitative data to identify themes and patterns. This provides structure to free- form data so that it can be examined in a systematic manner Fran Bodine (2021). Descriptive data from respondents was analyzed and presented in pie charts and graphs. In terms of thresh hold, confidence level of 95% statistics set at $p < 0.05$ was taken as statistically significant at that point for all objectives/hypothesis. Multiple linear regressions was used to test association of variables

Table 4.6: Correlation between Total Quality management dimensions and Performance of Parastatals in Kenya.

Correlations										
		Performance	Leadership	staff involvement	Customer Focus	Process approach	System approach	Factual Approach to Decision Making	Mutual Relationship	Communication
Performance	Pearson Correlation	1	.911**	.921**	.896**	.856**	.851**	.857**	.844**	.842**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
Leadership	Pearson Correlation	.911**	1	.962**	.949**	.908**	.894**	.899**	.890**	.892**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
staff involvement	Pearson Correlation	.921**	.962**	1	.950**	.906**	.892**	.905**	.893**	.891**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
Customer Focus	Pearson Correlation	.896**	.949**	.950**	1	.934**	.887**	.915**	.921**	.913**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
Process approach	Pearson Correlation	.856**	.908**	.906**	.934**	1	.903**	.897**	.892**	.881**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
System approach	Pearson Correlation	.851**	.894**	.892**	.887**	.903**	1	.905**	.903**	.884**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	86	86	86	86	86	86	86	86	86

Factual Approach to Decision Making	Pearson Correlation	.857**	.899**	.905**	.915**	.897**	.905**	1	.907**	.875**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
Mutual Relationship	Pearson Correlation	.844**	.890**	.893**	.921**	.892**	.903**	.907**	1	.954**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
Communication	Pearson Correlation	.842**	.892**	.891**	.913**	.881**	.884**	.875**	.954**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	86	86	86	86	86	86	86	86	86
**. Correlation is significant at the 0.01 level (2-tailed).										

The correlation analysis revealed significant positive relationships between the dimensions of Total Quality Management (TQM) and the performance of parastatals in Kenya. The Pearson correlation coefficients for all dimensions are above 0.8, indicating strong associations with performance. This suggests that improvements in TQM practices are likely to enhance organizational performance significantly. The highest correlation is observed between staff involvement and performance ($r = .921, p < .01$), implying that engaging employees in decision-making and process improvement is crucial for achieving higher performance levels in Kenyan parastatals.

Leadership also shows a strong positive correlation with performance ($r = .911, p < .01$), indicating that effective leadership is a vital component of TQM that significantly influences the overall performance of organizations. The role of leadership in driving quality initiatives, setting a vision, and ensuring that organizational processes align with strategic goals is well-supported by this finding. This aligns with studies by Kaluarachchi (2010) and Obiwuru et al. (2011), which

emphasized the importance of leadership in fostering a culture of quality that leads to enhanced organizational performance.

Customer focus, another critical dimension of TQM, exhibits a strong correlation with performance ($r = .896, p < .01$). This relationship underscores the importance of understanding and meeting customer needs as a driver of organizational success. The strong correlation suggests that organizations that prioritize customer satisfaction are more likely to experience improved performance. This finding is consistent with the work of Prajogo and Sohal (2006), who found that customer focus is a key determinant of organizational performance, particularly in service-oriented industries.

The process approach, which emphasizes the importance of managing activities and resources as interconnected processes, also shows a significant correlation with performance ($r = .856, p < .01$). This suggests that parastatals in Kenya that adopt a process-oriented approach to management are likely to perform better. The emphasis on process

efficiency, consistency, and effectiveness aligns with findings from studies such as those by Flynn et al. (1995), which highlighted the positive impact of a process approach on organizational performance.

The system approach to management, which involves managing interrelated processes as a cohesive system, is also strongly correlated with performance ($r = .851, p < .01$). This finding suggests that viewing the organization as a whole, rather than in silos, is critical for achieving high performance. This perspective enables organizations to optimize resources, reduce redundancies, and improve overall efficiency. The strong correlation is in line with research by Powell (1995), which argued that organizations that adopt a systemic approach to management are more likely to achieve sustainable competitive advantages.

The factual approach to decision-making, which relies on data and evidence to guide decisions, shows a strong positive correlation with performance ($r = .857, p < .01$). This indicates that Kenyan parastatals that base their decisions on factual data are more likely to perform well. The importance of data-driven decision-making is supported by studies such as those by Deming (1986) and Powell (1995), which emphasized that organizations that rely on accurate data and statistical analysis are better positioned to make informed decisions that enhance performance.

Mutual relationships within the organization, which reflect the degree of trust and collaboration among employees, also exhibit a significant positive correlation with performance ($r = .844, p < .01$). This finding suggests that fostering a culture of collaboration and mutual respect is critical for achieving high performance. Studies by Kochan et al. (1996) and Gittel et al. (2010) similarly found that strong internal relationships are associated with improved organizational outcomes, particularly in environments that require high levels of coordination and teamwork.

Communication, which is essential for ensuring that all stakeholders are aligned with the

organization's goals and processes, shows a strong correlation with performance ($r = .842, p < .01$). This indicates that effective communication is a key driver of organizational performance, as it ensures that employees are informed, engaged, and motivated to contribute to the organization's success. This finding resonates with the work of Tsai (2002), who argued that open and transparent communication is a critical factor in the successful implementation of TQM practices.

When comparing these results with past studies, it is evident that the findings align well with established TQM literature. For instance, a study by Ahire et al. (1996) found similar strong correlations between TQM practices and performance, particularly in manufacturing settings. Additionally, the results are consistent with the findings of Prajogo and Brown (2004), who observed that organizations with higher levels of TQM implementation tend to outperform their peers in terms of financial and operational metrics.

In conclusion, the correlation analysis provides robust evidence that the dimensions of TQM are closely linked to the performance of parastatals in Kenya. The strong positive correlations across all dimensions suggest that improving TQM practices is likely to lead to significant performance gains. These findings are consistent with the broader literature on TQM, which has consistently shown that organizations that invest in quality management practices tend to experience better outcomes in terms of efficiency, customer satisfaction, and overall performance.

Effect of Total Quality Management on Performance

The aim of the first objective of the study was to establish the relationship between Total Quality Management and Performance of Parastatals in Kenya. The study was also guided by null hypothesis which stated "There is no relationship between Total Quality Management and Performance of parastatals in Kenya" The findings on both summary model results and model coefficient results are presented as shown in Table 4.7.

Table 4.7: Effect of Total Quality Management on Performance of Parastatals in Kenya

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.885 ^a	.784	.779	.30715	.784	152.069	8	76	.000

a. Predictors: (Constant), Mutual Relationship, Communication , Staff Involvement, Factual Approach to Decision Making, Process Approach, Customer/ Client Focus, System Approach To Management

The model summary results indicate a strong relationship between Total Quality Management (TQM) practices and the performance of parastatals in Kenya. The R value of .885 suggests a high level of correlation between the independent variables (TQM dimensions) and the dependent variable (performance). An R Square value of .784 indicates that 78.4% of the variation in performance can be explained by the eight TQM dimensions. This reflects a substantial influence of TQM practices on the performance of parastatals. The Adjusted R Square value of .779, which is only

marginally lower than the R Square, confirms that even after accounting for the number of predictors, the TQM dimensions still explain a large portion of performance variability. Additionally, the significance of the F Change ($p < .001$) reinforces that the model is statistically significant, meaning the relationship between TQM and performance is not coincidental. This overall model strength emphasizes the critical role that TQM practices play in driving performance improvements in Kenyan parastatals.

Table 4.8: Coefficient of variables

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.863	.086		10.021	.000
	Staff Involvement	.131	.024	.248	5.559	.000
	Customer/ Client Focus	.094	.029	.166	3.191	.002
	Process Approach	.067	.018	.130	3.783	.000
	System Approach To Management	.101	.036	.147	2.760	.006
	Factual Approach to Decision Making	.097	.026	.172	3.764	.000
	Mutual Relationship	.067	.016	.115	4.278	.000
	Communication	.121	.016	.221	7.552	.000
	VAR00001	.106	.028	.131	3.789	.000

a. Dependent Variable: Parastatal Performance

Turning to the model coefficients, the unstandardized coefficients provide detailed insights into the individual contributions of each Total Quality Management (TQM) dimension to the performance of parastatals in Kenya. The constant term ($B = .863, p < .001$) indicates that when all predictors are held constant, the baseline performance of the parastatals is positive. Staff involvement emerges as a significant predictor with a beta coefficient of $.248 (p < .001)$, suggesting that for every one-unit increase in staff involvement, there is a corresponding $.248$ increase in performance. This finding reinforces the critical role of employee engagement in driving organizational outcomes, consistent with the work of Powell (1995) and Flynn et al. (1995), who also highlighted the importance of staff involvement in achieving quality improvements.

Customer focus also plays a significant role, with a beta coefficient of $.166 (p = .002)$, indicating a positive and significant relationship between a focus on customer needs and performance outcomes. This finding aligns with the broader TQM literature, which emphasizes customer satisfaction as a fundamental aspect of quality management. However, it is worth noting that while the effect size is moderate, it suggests that customer focus, though important, may not be the most dominant predictor of performance in this context. The process approach to management also showed a significant but smaller effect ($\beta = .130, p < .001$), suggesting that attention to managing interconnected processes contributes to performance improvements, albeit to a lesser extent than staff involvement.

The system approach to management yielded a beta coefficient of $.147 (p = .006)$, indicating a statistically significant and positive relationship between this approach and parastatal performance. This result suggests that the ability to manage systems holistically, ensuring that different processes and resources are aligned, plays a meaningful role in enhancing organizational efficiency and effectiveness. Similarly, factual decision-making, with a beta coefficient of $.172 (p < .001)$, underscores the importance of data-driven

decision-making in achieving performance outcomes, reflecting Deming's (1986) advocacy for statistical control and evidence-based management practices.

Mutual relationships within the organization, represented by a beta coefficient of $.115 (p < .001)$, also showed a positive and significant effect on performance. This suggests that fostering trust and collaboration among employees and departments contributes to improved outcomes. Communication, with a beta coefficient of $.221 (p < .001)$, was the strongest predictor in the model, underscoring the critical role of effective communication in implementing TQM practices successfully. This finding resonates with Tsai's (2002) work, which identified communication as a key factor in facilitating organizational change and quality improvement initiatives.

Finally, the variable labeled as communication had a beta coefficient of $.131 (p < .001)$, suggesting that it also contributes significantly to the performance of parastatals. The significance of this variable, along with the others, indicates that multiple facets of TQM practices collectively contribute to performance improvements in the parastatal sector. These results highlight the multifaceted nature of quality management and its impact on organizational outcomes.

In summary, the regression analysis reveals that all eight TQM dimensions studied—staff involvement, customer focus, process approach, system approach to management, factual decision-making, mutual relationships and communication—are significant predictors of parastatal performance. The most influential factors are communication and staff involvement, indicating that for Kenyan parastatals, engaging employees and ensuring effective communication are key drivers of success. These findings align with the broader TQM literature while also offering unique insights into the public sector context.

Table 4.13: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.889 ^a	.791	.84	.000	.791				
a. Predictors: (Constant), Total Quality Management									

In the model, where TQM is the sole predictor of performance, the results show a strong positive relationship, with a standardized coefficient (Beta) of 0.889 and a significant t-value ($t = 17.839, p < .001$). The R-square value of 0.791 indicates that 79.1% of the variance in performance is explained by TQM alone, highlighting the importance of

TQM as a significant contributor to performance in Kenyan parastatals. These findings are consistent with existing literature that emphasizes the critical role of TQM in driving organizational success, particularly in sectors where operational efficiency and quality are paramount.

Table 4.14 : Coefficient variable

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.079	.114		.690	.492
	Total Quality Management	.964	.054	.889	17.839	.000
2	(Constant)	.046	.109		.418	.677
	Total Quality Management	.412	.187	.380	2.205	.030
	Lean Practices	.570	.185	.530	3.082	.003
3	(Constant)	.119	.113		1.056	.294
	Total Quality Management	.181	.214	.167	.849	.398
	Lean Practices	.854	.227	.795	3.769	.000
a. Dependent Variable: Efficiency						

The significant interaction term implies that the relationship between TQM and performance is

contingent upon the level of TQM practices implemented. Specifically, while both TQM

practices independently contribute positively to performance, the negative interaction suggests that when TQM practices are strongly emphasized, the marginal benefit of TQM on performance may be reduced. This could be due to overlapping effects where the principles of TQM converge, leading to diminishing returns in certain areas when both are applied simultaneously at high levels.

For Kenyan parastatals, these results suggest that while TQM is beneficial, their use should be carefully managed. Organizations may need to assess the specific contexts in which tqm might reduce the marginal effectiveness of performance and vice versa. This might involve a strategic evaluation of which elements of TQM are most critical to their operations and how these can be harmonized to avoid overlap and inefficiencies.

It is important to consider the limitations of this study when interpreting the results. The negative interaction term might not necessarily indicate that performance diminishes with the effectiveness of TQM in all cases. Instead, it could reflect specific challenges within the Kenyan parastatal context, such as resource constraints or the difficulties in integrating complex management systems. Future research could explore these dynamics in greater detail, potentially using qualitative methods to gain deeper insights into how these interactions play out in practice.

Summary, Conclusions, and

Recommendations:

Total Quality Management and Performance of Kenya Parastatals

The study established a strong positive relationship between Total Quality Management (TQM) and the performance of parastatals in Kenya. The results revealed that TQM significantly contributes to the enhancement of performance, as indicated by a high R-square value (0.791) in the regression model. This suggests that 79.1% of the variance in performance can be attributed to the implementation of TQM practices. The standardized coefficient of TQM was also notably high, confirming the significant role of quality

management practices in driving organizational success. The findings are consistent with existing literature, which underscores the critical importance of TQM in achieving operational efficiency, customer satisfaction, and overall performance improvements.

Furthermore, the Pearson correlation analysis also supported these findings, showing a strong and significant positive correlation between TQM and performance. This correlation indicates that as TQM practices are enhanced, the performance of parastatals in Kenya improves correspondingly. The strength of this relationship aligns with studies conducted in similar organizational contexts, where TQM has been identified as a key determinant of performance. This reinforces the importance of continuous improvement, customer focus, and process optimization, which are central tenets of TQM, in achieving superior performance outcomes in parastatals.

The robustness of the findings across different analytical methods—both correlation and regression provides strong evidence for the critical role of TQM in the Kenyan parastatal sector. These results suggest that managers in parastatals should prioritize the adoption and implementation of TQM practices to realize significant performance gains. This emphasis on quality management is essential for maintaining competitiveness and ensuring the sustainability of these organizations in the long term.

Conclusions:

The study concludes that TQM has a significant and positive impact on the performance of parastatals in Kenya. The evidence strongly supports the rejection of the null hypothesis (H1) that there is no relationship between TQM and performance. TQM practices are essential for driving performance improvements in parastatals, contributing to nearly 80% of the variance in performance outcomes. The consistent findings across multiple analytical methods underscore the critical role of TQM in enhancing operational efficiency, customer satisfaction, and overall organizational success.

The strong relationship between TQM and performance aligns with the broader body of literature that emphasizes the importance of quality management in achieving superior organizational outcomes. In the context of Kenyan parastatals, the adoption of TQM practices is crucial for maintaining competitiveness and ensuring long-term sustainability. The study's findings provide a compelling case for the continued focus on TQM as a key strategic priority for managers in the parastatal sector.

The study also concludes that TQM practices have a significant positive influence on the performance of parastatals in Kenya. The findings lead to the rejection of the null hypothesis (H2) that there is no relationship between TQM and performance. TQM practices contribute significantly to performance improvements by enhancing efficiency, reducing waste, and optimizing processes. The consistent positive impact of TQM across different analytical methods highlights its importance as a complementary strategy to TQM.

This conclusion highlights the need for a strategic approach to integrating Lean and TQM practices in parastatals. Managers should consider the specific contexts and capacities of their organizations when implementing these practices to avoid potential conflicts and inefficiencies. The study's findings provide valuable insights into how TQM can be effectively be applied to maximize performance outcomes in the parastatal sector.

Recommendations:

It is recommended that parastatals in Kenya continue to prioritize the implementation of TQM practices as a key strategy for enhancing performance. Given the strong positive relationship between TQM and performance, managers should focus on continuous improvement, customer satisfaction, and process optimization to achieve superior outcomes. Additionally, training and capacity-building initiatives should be implemented to ensure that all employees are well-versed in TQM principles and practices

Suggestions for Further Studies

Future research could explore the conditions under which TQM practices enhance or hinder the

effectiveness of Performance in different organizational settings. For example, studies could examine whether the negative interaction observed in this study is more pronounced in organizations with certain characteristics

Acknowledgement:

Great thanks to the Almighty God for providing me with the health, security and strength to reach this far. Appreciations to supervisors: Dr. Gulali Donald and Dr. Mise Jairo for their academic mentor, Dr. Ntongai Sam, Dr. Museve (JOOUST), Dr. Omuga Charles (Alupe University) for constructive critics. Special thanks to family members: Joseph and Victorina Oduor, Gody, Marcy, Emmanuel, John, Joakim. Gratitude to Truphosa Machoki, Onyango Douglas, Anzirimi Melvin, principals; Mr. Auma Vincent and Okello Stephen Idalang'i kudos to Halima Leilah (Nzoia sugar Co-). Lastly, appreciation goes to Japheth Otoro, Nathan Otoro, Saph Otoro and Milderred Wesonga for endless prayers and wish. Iam indebted to your kind support and understanding.

To all, I say be blessed.

References:

1. Adam, E.E., Flores, B.E. & Macias, A. (2001) Quality improvement practices and the effect on manufacturing firm performance: evidence from Mexico and the USA, *International Journal of Production Research*, 39, pp. 43-63.
2. Affar N.S., and Obeidat A., (2020). Effect of TQM practices on employee performance: The moderating role of knowledge shining. *Management science letter* 10(1), 77-90, 2020. M.growingscience.com.
3. Ahire, S.L. & Dreyfus, P. (2000). The Impact of Design Management and Process Management on Quality: an Empirical Examination, *Journal of Operations Management*, 18, pp. 549-575.
4. Ahmed M.M (2014). Effect of Training on Employee Performance in public selected sector organizations in Kenya. The case of NHIF Machakos County.
5. Akelo S. A. (2017). Effect of Total Quality Management Practices on Organizational Performance in International Research Organization in Kenya.

6. Aladwani, A. (2003). Change Management Strategies for Successful ERP Implementation.
7. Alexander, L.D. (1985). Successfully Implementing Strategic Decisions. *Long Range Planning*, 18(3), 91-97.
8. Alizadeh, M. (2005). Excellence in Financial Management by Balanced Assessment model Organisation for Management and Planning p4.
9. Alkison. A.A., Kaplan R.M and young S.M (2004). *The Balance Scorecard in Management*. New Jersey: Pearson prentice Hall.
10. Andrew G. (2018). Efficiency and effectiveness: know the difference www.facilitiesnet.com.
11. Andrum G. A., (2013). Influence of Internal Institutional Supervision on Quality of Teaching and Learning of English in secondary school in Kakamega County in Kenya.
12. Ansoff, H.I., & McDonnell, E. (1990). *Implementing Strategic Management*. New York: Prentice Hall International.
13. Barney (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. doi:10007/014920639101700108.
14. Bartezzaghi, E., and Turco (1989) .The Impact of Just In Time approach on production system performance. An analytical framework. *International Journal of operation and production Management* 9(9), 40-61 doi:101181EUM000000000127.
15. Bless. C. Kathuria, R (1993). *Fundamentals of Social statistics: An African Perspective*. Cape Town. 367 pages.
16. Blunch, N. (2012). *Introduction to Structural Equation Modeling using IBM SPSS Statistics and AMOS*. Sage.
17. Boyou and De Korvin (2008). Measuring the Leanness of Manufacturing Systems-A case study of Ford Motors Company and General Motors *Journal of engineering and Technology management* 25(4)(2008). PP. 287-304.
18. Breakwell, Glynis M. Hammond Seam. Fife-Schew, Chris.(Eds) (1995) *Research Methods in Psychology/ London: Sage Publication*.
19. Bridging the soft skills Gap ;How to teach the missing basics to today Young Talents by Bruce Tulgan 1st Edition ISBN-13:978-1118725641.
20. Brown, S. & Blackmon, K., (2005). Aligning Manufacturing Strategy and Business-Level Competitive strategy in new Competitive Environments: The Case for Strategic Resonance, *Journal of Management Studies*, 42: 4, pp. 793-815.
21. *Business Process Management Journal*, 7 (3), 266-275.
22. Camille Yip ,Nlan- Lin R, Han and Ban L.S., (2016). *Indian J. Anaesthesi* 2016 *Indian journal of Anaesthesia* Sep;60 (9):684-688- doi:104103/0019-049.190627.
23. Cecilia M/. P and Juliana C. F (2018). Internal and External validity: Can you apply research study results to your patients?
24. Chow, C.W Ganulin D., Haddad, K & Williamson J. (1998). The balanced scorecard: a Potent tool for Energizing and Focusing Health –care Organisation Management” *Journal of Health- Care Management*, 43(3); 63-80.
25. Cohen, J., Cohen E. J. (1983). *Applied Multiple Regression/ Correlation Analysis for the BehavioraScience*. Hillsdare, NJ: Lawrence Erlbaum Associates, Inc.
26. Continue Reading about Kaizen (continuous improvement) Diann Daniel 13/may/2021.
27. Creswell JW, Plano Clark VL.(2011). *Designing and conducting mixed method research*. 2nd Sage; Thousand Oaks , CA.
28. Creswell, J.W (2013). *Qualitative inquiry and research design: choosing among five approaches* (3rded.) Thousand Oaks, CA: Sage.
29. Czabke, J. Hansen, E and Doolen T (2008) –A multisite field study of lean thinking in U.S.A and German secondary wood products manufacturers, *forest products journal* ,58(9),77-85.
30. Dale, B. G., & Cooper, C.L (1994). Introducing TQM: the role of senior management, *Management Decision*, 32(1), 20-26.
31. David J. Creswell and John Creswell (2017). *Research Design: Qualitative and quantitative and Mixed methods approach* (2017).
32. David A. (2005). Fostering ring innovation in public services. *Public money and management* 25(1) : 51-56.
33. David A.(2014). The value of lean in service sector: A critique of Theory practice. *International Journal of Business and Social science*-Vol. 5 no.2: February (2014).

34. De vaus, D. (2002). Surveys in social Research .The 5th Edition. London: Routledge.
35. Deiego Rodriguez (2021) Incorporating 5 lean principles for service industries.
36. Denscomle, M. (2014). The Good Research Guide: for small –scale social research projects. 5th ed. Mainden head: Open University Press.
37. Doleman H.J., Steven T.H., and Keen Ahaus (2012).The moderating role of Leadership in Relationship between Management control and Business Excellence. TQM and Business Excellence 23(5-6)591-611, 2012.DOI:10.30880/rmtb.2020.01.002.
38. Dongli Z., Kevin L., Roger G. Schroeder (2012). Moderating role of contextual factors on quality management practices. Journal of Operations Management 30(1-2), 12-23, 2012.
39. Dr. S.J. Manjunath G. Arun Kumar (2013). Impact of Total Quality Management Implementation on productivity and quality .A study at general motors Mysore, Karnataka, India Asia Pacific Journal of Marketing & Management Review ISSN 2319-2836 Vol.2 (4), April 2013.
40. Duggal Nikita (2021). Eight Most Effective Data Collection Methods with Their Techniques and used cases explained.
41. Eden S. (2019). Effect of Kaizen Implementation on Employee’s Performance at Anbessa shoes Share Company. Addis Ababa, Ethiopia.
42. Eileen Modral (2021). Measuring Business Growth; The how, when, and why.
43. Ellie Martin (2021). The 5 core principles of lean management.
44. Esin and Hilai (2014). Effect of Total Quality Management practices on performance and the reasons of and barriers to Total Quality Management practices in Turkey Pg. 6-14.
45. Esin Sadikoglu and Hilal Olcay. (2014). The Effects of Total Quality Management Practices on Performance and the Reasons of and the Barriers to TQM Practices in Turkey. International business journal Volume 2014 Article ID 537605.
46. Evans Tarver (2022) Business essentials – Balanced Scorecard (BSC).
47. Feldman (1992). Audit in Psychotherapy: The concept of Kaizen (PDF) Psychiatric Bulletin. Royal College of Psychiatrists. 16(6):334-336. Doi:10.192/PB.16.6.334.
48. Feming, F.A Amaria, P., & Frempong, E.O (2013). Linkages between total quality management and organization survival in manufacturing companies in Ghana. International Journal of Business and Social Science, 4 (10), 1-15.
49. Feming, F.A Amaria, P., & Frempong, E.O (2013). Linkages between total quality management and organization survival in manufacturing companies in Ghana. International Journal of Business and Social Science, 4 (10), 1-15.
50. Fiona Middleton (2019). Reliability vs. Validity in Research, Difference, Types and Example www.scribbr.com.
51. Flynn, B.B., Schroeder, R.G and Flynn. E.J. (1999). World class manufacturing: An Investigation of Hayes and Wheelwright foundation. Journal of lean manufacturing on operations management. 17,249-269.doi:101016/S0272-6963(98) 00050-3.
52. Fran Bodine (2021). Society for International Development Marketing and Social Research Association.
53. Franscesca Cassidy (2018). Business Innovation and their essence in modern business entities. 3rd Edition.
54. Frederick, T. (1911). The Principles of Science Management, Harper and Brothers, USA.
55. Gamal A.M., (2010).Six sigma quality: A structured review and implications for future research. International Journal of Quality and Reliability Management, 27(3)268-317 <https://doi.org/10.1108/0265711023294>.
56. Gupta, S. (2008). How to shrink your waste Lean .I.T MLA 7th Edition Academic One file document.
57. Hackman, J. R., & Wageman, R. (1995). Total Quality Management: Empirical, Conceptual, and Practical Issues. Administrative Science Quarterly, 40(2), 309-42.
58. Haffar M., Al-Karaghoul W. Djebarni R. Gbadamosi G. (2017). Organizational Culture and TQM Implementation: Investigating the mediating influence of Multidimensional Employee Readiness For Change. Total Quality Management. Business. Excellence 2017:1-22 (Google Scholar).
59. Harrington, B. (2015). An Intelligent Forward Quality Enhancement System to Achieve

- Product Customization, Industrial Management & Data Systems, Vol. 105 No. 3, pp. 384-406.
60. Henry M. and Schroeder R. (2006). Six sigma: The Breakthrough. Management Strategy Revolutionizing the world's top corporations, Dell publishing .ISBN: 978-8129117731.
61. Henry, G.T (1990). Practical Sampling. Vol 21.SAGE Publications Ltd, Newbury Park<http://dx.doi.org/10.413/9781412985451>.
62. High Impact Tools and Activities for Strategic Planning: Creative Techniques for facilitating your organization's planning process. 1st Edition Day (1997).
63. Hill, C.W.L. (2014). Differentiation versus Low cost or Differentiation and Low cost: A Contingency Framework, Academy of Management Review, Vol. 13 No. 3, pp. 401-12.
64. Holden, M. and O'Toole, T (2004). A quantitative exploration of communication's role in determining the governance of manufacturer- retailer relationships. Industrial Marketing management 33, 39-48.
65. Hrebiniak (2005). Making Strategy work: Leading effective execution and change. Retrived from <http://www.whartonsp.com/articles>.
66. Hui, H., Radzi., Jenatadadi, H., Kasim, F., & Radu,S. (2013). The Impact of Age, Size on the relation among Organizational Innovation, Learning and Performance. A moderation Analysis in Asian food Manufacturing Companies. Interdisciplinary journal of Contemporary Research in Business, 5(4)166-174.
67. Hussey, J., and Hussey, R. (1997). Business Research; A practical Guide for Undergraduate and Post graduate students. London: Macmillan Press Ltd.
68. Ibn Rasul, S.A (2004). Development of balanced scorecard for management systems of research, Ph.D Theses, Tehran, Industry and Science University.
69. Imai Masaaki (1986). Kaizen: The key to Japan's Competitive Success. New York: Random House.
70. International Monetary Fund (2021). Governments Enterprise Performance Document: What next for the state enterprises.
71. International Organization for Standardization (ISO), Quality management principles (2015). <http://www.iso.org/iso/pub100080.pdf>.
72. Jawad A. (2020). Impact of TQM on Corporate Sustainability through the mediating effect of Knowledge Management. <https://doi.org/101016/j/jclepro.2019.118806>.
73. Jimor R., Oyewobi L., Isa r., Wazir I.(2019). TQM practice and organizational performance: The mediating role of strategies for continuous improvement. Int J. Constr. Manag 2019; 19 (2):162 – 177. (Google scholar).
74. Joel (2016). Effect of strategy implementation on organization performance. A case of Diamond Trust Bank Nairobi City County branches.
75. John Dudovskiy. (2022). The Ultimate guide to writing a dissertation in Business Studies: A step by step Assistance (6th edition).
76. Johnson, G, & Scholes, K. (2008). Exploring Corporate Strategy. London: Prentice Hall.
77. Jon Miller: Creating a Kaizen culture: Align the origin achieve break through results and sustain the Gains (Mechanical engineering) illustrated Edition (16. Nov.2013) ISBN -10.97.800 71826853.
78. Julia Hanna (2007) –Bringing 'lean' principles to service industries. Business Research for business leaders. Business Harvard School. Hbswk.edu.
79. Kaizen : The key to Japan's competitive success 1ST Edition by McGraw-Hill New York ;stated first Edition (01/Jan/1986)ISBN-10 007554332X.
80. Kaizen and the Art of Creative thinking: The scientific Thinking Mechanism 1st Edition (2017) ISBN -101897363591.
81. Kaplan R.S and Norton D.P (1999). "Using the Balance Score Card from performance management to strategic management: Part 1 Accounting 3rd Edition, Upper saddle river, N.J. Prentice Hall.
82. Kaplan, R. S & Narton, D.P (1992). The balanced scorecard- measures that drive performance. Harvvard Business Review, 70(1), 71-79.
83. Kaplan, R.S, & Norton, D. P (1996b).The balanced Scorecard: Translating strategy into action. Boston, MA: Harvard Business School Press.246.

84. Kaplan, R.S., & Narton, D.P. (1996a). Using the Balanced Scorecard as Strategic Management System. *Harvard Business Review*, 74(1), 7 (5)-85.
85. Kaplan, R.S., & Norton D. P (2001). *The strategy focused organization: How balanced Scorecard companies thrive in new Business environment*. Boston: Harvard Business School Press.
86. Kaplan, R.S., & Norton, D.P. (1993). Putting the balanced scorecard to work. *Harvard Business Review*, 71(5), 134-42.
87. Kaplan, R.S., & Norton, D.P. (1996). *The Balanced Scorecard – Translating Strategy into Action*. Boston, MA: Harvard Business School Press.
88. Kaplan, R.S., & Norton, D.P. (2001). *The strategy-focused organization – How balanced scorecard companies thrive in the new business environment*. Boston: Harvard Business School Press.
89. Kerlinger, F.N (1979). *Behavioral Research: A conceptual approach*. New York: Holt Rinehart & Winston.
90. Khan M.A, (2010). Evaluating the Deming Management Model of Total Quality Management in telecommunication industry in Pakistan- An empirical study. *International Journal of Business and Management*, 5(9), 46, 1-15.
91. Khan M.A, (2010). Evaluating the Deming Management Model of Total Quality Management in telecommunication industry in Pakistan- An empirical study. *International Journal of Business and Management*, 5(9), 46, 1-15.
92. Khuran Hashmi (2000). *Introduction and Implementation and Total Quality Management (TQM)* 3pp 13-18.
93. Kim –Y., Kumor V. Kumar U. Relationship between Quality Management Practices and Innovation *J. Oper manag* 2012; 30 (4): 295-315 (Google scholar).
94. Kiptui K. Ambrose K. and Margret Oloko (2017). Moderating effect of TQM on the relationship between organizational learning and performance of public universities in Kenya. *The international Journal of Business and Management* Vol. 5, issue 8, August 2017.
95. Kirkham L. Garza- Reyes. J.A Kumar V., Antony J. Prioritization of operations improvement projects in the European manufacturing industry. *Int.J. Prod. Res.* 2014; 52 (18); 5323-5345 (Google scholar).
96. Kothari, C. R (2004) *Research Methodology: Methods & Techniques*, 2nd Edition, New Age International Publishers, New Delhi.
97. Krisada C. Kiltisak J., (2019). The influence of entrepreneurial orientation and TQM on organizational performance on pharmaceutical SMEs in Thailand with moderating role of organizational learning.
98. Lauren Landry (2020). *Decision making – Management essential: Why managers should involve their team in the decision-making process*. Business insight- Harvard university online.hbs.edu.
99. Lebens, M., & Euske, K (2006). *A conceptual and Operational Delineation Of Performance Business Performance Measurement*, 15-18
100. Lender, E and Liker *Journal* (2007) .The Toyota Production system and art: making highly customized and creative products the Toyota way –*International journal of production Research*, 45(16) .pp 361-3698.
101. Liker, J.K,(1994) *The Toyota Way: 14 Management Principles from the World’s Greatest Manufacturing* McGraw-Hill New York, NY.
102. Linet Njagi and, Henry Kombo (2014). Effect of Strategy Implementation on Performance of Commercial Banks in Kenya *European Journal of Business and Management* www.iiste.org ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.6, No.13, 2014.
103. Manifold Toga (2017). *Relationship between TQM and Innovation in Foundation Steel Industry South Africa*.
104. Mburu (2017). *Effect of quality management system and strategic management practices in access to water and sanitation services in Kenya* Kaplan, R.S., & Narton, D.P. (1993). *Putting the balanced scorecard to work*. *Harvard Business Review*, 71(5), 134-42.
105. Morse J M, Plano Niehaus L. *Mixed method design: Principles and procedures*. Left Coast Press: Walnut Creek. C,A 2009.
106. Mugenda O.M, Mugenda A.G (1999). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

107. Mugenda, O. M., & Mugenda, A.G. (2003). *Research methods: qualitative and quantitative approaches*. ACTS, Nairobi.
108. Muia Faith Mukonyo (2010). *Effect of Total Quality Management implementation in performance of Microfinance institution in Kenya. A case of K-Rep Development Agency* pg 2-28.
109. Mutua C., Muendo and Prof. Martin O., (2020). *Strategy implementation and organizational performance: a case study of Kenya medical training college* European journal of strategic management (EJSBM) ISSN 2518-265X (Online) Vol.5, Issue 1, pp. 16- 36, 2020 www.iprj.
110. Mwasiagi E. (2019). *Corporate strategy for medium scale manufacturing enterprises in Kenya*. International Journal of Management Excellent 14(1), 2020-2028. ISSN 2292-1648.
111. Nassiuma, D.K (2000). *Survey Sample; Theory and Methods*. Nairobi: Nairobi University Press.
112. Neone, P. (2007). *Balanced Evaluation-step by step*, Translated by Parviz Bakhtiari et al., Tehran, Industrial Management Press, first edition.
113. Niche Ndubusi. H (2012). *Impact of Total Quality Management on organizational productivity. A case of Ama Brewery 9th Mile Corner Enugu* pg12-59.
114. Nichmias, C.F and Nachmias D (1996). *Research Methods in Social Science 5TH Edition*, St Martin Press, London.
115. Nimra A., (2022) *Exploring the impact of TQM initiatives on construction industry projects in Pakistan*. Doi:1.1371/journal.pone.0274827.
116. Njeru M.N.(2016). *The Relationship between TQM and Employees Performance in public universities in Kenya. A case study of Kirinyaga university collage*. Strategic Journal of Business and Change management 3(2).
117. Norah Dhafer, Al-Q., Sabah S. A., Dr. Azrilah A. Aziz (2011). *The impact of total quality management on organizational performance* European Journal of Business and Management www.iiste.org ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.7, No.36, 2015.
118. North College (2015). "Quality Assurance" A dobe Digital Editions version. Retrieved from <http://www.Northlink Co.zq/QMS.aspx>. Nunnally. J., (1978) *Psychometric methods* (2rd Edn) New York McGraw. Hill.
119. Nurhayati R., (2018). *The impact of quality awareness on quality results of manufacturing firms. The mediating effect of TQM* DOI: <https://doi.org/10.14738/abr.612.5645>.
120. Pollock and Calloun. (2001). *Breaking through Learning: How to turn training and development into business results* By Roy V.H Pollock and Calloun. W. Wick. 3rd Edition: ISBN-13:978-1118647998. of State Universities and Other Universities in Jaipur.
121. Office of the Auditor General (2017.). *Report of The Audit-General on the Financial Statements of State Corporation of Kenya for the year ended 30 June 2017*.
122. Office of the Auditor General (2020). *Report of The Audit-General on the Financial Statements of State Corporations of Kenya for the year ended 30 June 2020*.
123. Office of the Auditor General. (2019). *Report of The Audit-General on the Financial Statements of Postal Corporation of Kenya for the year ended 30 June 2019*.
124. Omato D. N., (2019). *Influence of change resistance management on relationship between strategic change management practices and service quality among county government in western Kenya*.
125. Owerri (2013). *Impact of the total quality management (TQM) on productivity (a case study of diamond bank, ltd)*.
126. Pamela A., and Phelgona G., (2019). *Strategy Implementation Practices on Performance of Solid Waste Disposal Management in Informal Settlements in Nairobi, Kenya*. International Journal of Current Aspects, Volume 3, Issue IV, 2019, PP 131-149, ISSN 2616-6976. www.ijcab.org.
127. Panuwatwanich K., Al –Haadir S., Stewart R.A (2017). *Influence of safety motivation and climate on safety behavior and outcomes: Evidence from the Saudi Arabia Construction industry*. Int. r J.Occup.saf.Ergon.JOSE.2017 23(1): 60-75. (PubMed) Google scholar.

128. Patton M Q. (2002). *Qualitative Research and evaluation methods-2rd* Sage publications Thousand Oaks CA 2002.
129. Paul C. Price, Rajiov Jhangiani (2021). *Research methods in Psychology 2rd Canadian Edition* .
130. Peter o., Daryl P., Hans H., and Kym F., (2014). Using Lean principles to drive operational improvements in intermodal container facilities www.emeraldinsight.com/1472-5967.htm
131. Philip B. Crosby, W. Edwards D., Armand V. F., Kaoru I., and Joseph M. J.(1992). *The Eight TQM Elements*.
132. Porte Brown Wealth Management: of the week: *Revue Growth* (2022).
133. Porter, M.E (1991). Towards a dynamic theory of strategy. *Strategic management Journal*, 12(special Issue) 95-117 doi:101002/smj.4250121008.
134. Powell, T.C., (1995). Total quality management as competitive advantage: a review and empirical study. *Strategic Management Journal*, 16(1), 15-37.
135. Prachi.J.(2021) *Methods/ways of participation of employees in decision – making* www.managementstudyguide.com
136. Pritha Bhandari (2021). *Ethical Considerations in Research Type and Examples*. <https://www.scribbr.com>, <https://www.scribbr.com>
137. Ramatu A.A., Kabiru M., and Kabiru J.R., (2018). TQM firm performance and the moderating role of competitive intensity. *Journal of Business, Economics and Entrepreneurship (JIBE)* 3(1), 10-20, 2018.
138. Rash Z., (2021). The influence of soft and hard TQM on quality performance and patient satisfaction in health care: Investigating direct and indirect effects. [Pubmed.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov).
139. Raymond A. N., (1996). *Employee training and development: 8th Edition*.
140. Reed, R., Lemak, D.J., & Montgomery, J.C. (1996). Beyond process: TQM content and firm performance. *Academy of Management Review*, 21(1), 173-202.
141. Republic of Kenya (2020). *Financial Year 2019/2020*. The National Treasury and planning statement of Fiscal risks arising from the corporations sector. Financial Year 2019/2020.
142. Rigby, D., & Bilodeau, B. (2011). *Management tools and trends 2011*. Bain & Company.
143. Robert Haif (2019). *Share the vision: How to encourage employee decision making w 28th Oct 2019*. www.roberthalf.com.uk.
144. Robert Maurer. (2012). *The spirit of Kaizen: Creating Lasting Excellence over small step at a time* (2012) by Robert Maurer.
145. Rula Ali Al-Damen (2017). The impact of Total Quality Management on organizational performance .A Case of Jordan Oil Petroleum Company *International Journal of Business and Social Science* Vol. 8, No. 1; January 2017ISSN 2219-1933.
146. Sajj A.B., Saher I., Mohammad A.,Irfan A.B., Fiza A., and Muhammad Z., (2021). *Impact of Leadership styles on employee’s performance with moderating role of positive psychological capital Pakistan*.
147. Salim, S.B.(2012). *The Relationship between Size and Financial performance of Commercial Banks in Kenya*. Unpublished MBA Project, university of Nairobi.
148. Sam Franklin (2022). *An actionable guide to calculating and improving your revenue growth* www.letsbloom.com.
149. Santos-Vijande M.L., Alvarez- Gonzalez L.I (2007). Innovativeness and organizational innovation in total quality orientation firms: the moderating role of market turbulence. *Tec novation*. 2007: 27(9): 514-532 (Google Scholar).
150. Saunders, M., Lewis and Thornhill, A. (2009). *Research Methods for Business Students*. Pearson, New York.
151. Saunders, M., Lewis, Thornhill, A (2003). *Research Methods for Business Students* (3rded.) England: Prentice Hall.
152. Sean Lund-Brown (2009). *Understanding Key performance indicators (KPIs) and using them to Fast – Track Business Growth* (2009).
153. Sekaran, U. (2000). *Research Methods for Business; A skill-building approach*, 3rd Ed. New York: John Wiley.
154. Simon Elias (2016). *Why lean thinking is Valuable to the service industry*. Lean

- competency system Director, Lean competency system 22nd August.
155. Siti R.A.,(2018). Ethical considerations in Qualitative Study .International Journal of Care Scholar (2018) ;1(2).
156. Sonal J., (2012). Application of Total Quality Management: A Comparative study of Libraries
157. Soumyadeep H., (2019). Impact of barriers and Enablers on effective lean implementation in India steel industry.
158. Stephen, S., Akshay K.C.(2002). Management, 7/E Prentice Hall.
159. Tehmeena S., Rabia M., Zanaib T., (2021). Effect of TQM on financial and non-financial performance: Evidence from Higher educational sector of Pakistan. Humanities and Social Science Reviews 9(3) : 1027-1037 DOI:10./8510/hssr.2021.93101.
160. The chartered Quality Institute ISO 14001:2015 Understandings Quality International Standards ASIN: BO7B8SKX34.
161. The Loyalty Effect (Harvard Business School Press (1996) hbswk.hbs.edu
162. The practice of management Executive reflection of Peter F. Drucker's landmark book. Pg 16 vol 17 (2003).
163. Therese A. J., (2017). TQM and performance: The role of organization support and co-worker support. The international journal of quality and reliability management. ISSN: 0265-671X-2017.
164. Thomas O.N., Ronald B., and Joel C., (2017). Moderating role of transformational leadership behavior on the relationship between dynamic capabilities and performance of manufacturing firms in Nairobi County in Kenya. International Journal of Economic Commerce and Management UK Vol., Issue II November 2017 ISSN 23480386. <http://ijecm.co.UK/ISSN23480386>.
165. Vedant S., Akshay K., and Tej S., (2018). Impact of TQM on organizational performance a case of Indian manufacturing and service industry. DOI: 10.1016/J.orp.2018.07.004.
166. Vignesh V. Suresh M. and S. Aramvalarthan (2016). Lean in service industries: A literature review.
167. Wahyu Ismael K, K Arfandi A., Muhammad H., Masurin (2022). Analysis of the of TQM implementation on company managerial performance case study: PT.X) <https://doi.org/10.56882/jisem.v1i2I.I>
168. Waititu J.W (2016). Relationship between strategy implementation and Performance in commercial bank in Nairobi county Kenya international Journal of Business and Management, 11(9), 231-248.
169. Wamalwa A., and Lucy S., (2018) analyzed the effect of TQM on the relationship between Generic strategies and performance of Kenyan manufacturing firms. <http://hdl.handle.net/123456789/4826>.
170. Weed, Julie (July 10, 2010). "Factory Efficiency comes to the Hospital" The New York Times.
171. Womack and create wealth in your corporation. New York Simon and Schuster. Printer p.115.
172. Womack and Jones- The five principles of lean manufacturing. The Lean Enterprise Institute (2016).
173. Yuni Pambrane Ali k., S.M Ferdous Azom and Jacqueline T. (2019). Influence of TQM towards organization performance. Management Science letters 9(9): 1397- 1406. DOI: 10.5267/J.MS/2019.5.011.
174. Zakiah M.Z., A and Nurazwa A., (2020). TQM practices and operational performance in manufacturing companies. Research in management of Technology and Business.
175. Zakuan N. Yusof S.M, Laosirihong T., Shahoroun A.M Proposed relationship of TQM and organizational performance using structured equation modeling total qual.manag.2010;21(2):185-203 (Google Scholar).
176. Zeyad K., Issam A., and Aynam A.,R. (2020). TQM potential moderating role of the relationship between Human Resource Management practices, Knowledge management strategies and organizational performance. A case of Jordanian Banks. Academic of strategic Management journal (Print ISSN: 1544-1458; Online ISSN: 1939-6104).