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**EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICES ON THE
PERFORMANCE OF COFFEE CO-OPERATIVE SOCIETIES IN KIAMBU
COUNTY**



**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION AT STRATHMORE BUSINESS SCHOOL**

SEPTEMBER 2022

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the project contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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ABSTRACT

Within the last three decades, coffee production and exports in Kenya have declined substantially, especially in the smallholder co-operative sub-sector, and which accounts for over 60% of Kenya's total coffee production. This has resulted in poor performance within coffee co-operatives in the country. Despite the various studies showing a positive relationship between TQM adoption and organizational performance, there was limited documentation on how various quality management practices influence the organizational performance of Kenyan coffee co-operative Societies at the local level. This study is on how total quality management practices (leadership management, quality focus and process management) affect the performance of coffee co-operatives in Kiambu County. The study was anchored on the Deming theory of quality management and the contingency theory. The research used a descriptive cross-sectional design in determining the relationship between the variables. The population of the survey was the 23 registered coffee co-operatives with the chairperson and operations manager considered in the study. The sample for this study was 46 officials with a census survey being adopted. The study adopted a structured questionnaire in the collection of study data with a drop and pick method as well as Google forms being used in data collection process. The study questionnaire was pretested among 10% of the participants of the study. The collected data was analyzed using quantitative techniques with charts and tables applied in the data presentation. The survey was able to obtain 91% which was adequate for this research. Findings revealed that majority of them 88% have operated within the county for more than 12 years, 5% had operated for 8-11 years with only 7% operating for 4-7 years. The correlation tests revealed that leadership management, quality focus and process management had a positive effect on the performance of the coffee co-operatives. Regression tests established that total quality management practices do predict 66.8% of the changes in the organizational performance of the coffee cooperatives operating in Kiambu County. The supported the conclusion that leadership management and process management have a significant positive effect on the performance of coffee cooperatives. The analysis led to the conclusion that quality focus does not have a significant influence on the performance of coffee cooperatives. The study recommends the management of coffee co-operative societies a TQM implementation division whose primary duty would be to streamline the process of TQM practices within the organizations. The research recommends that co-operatives should improve investments in new modern technologies that will help farmers in improving their coffee productivity. The study recommends the institutions should constantly review their production process to ensure they are able to maintain their quality standards.

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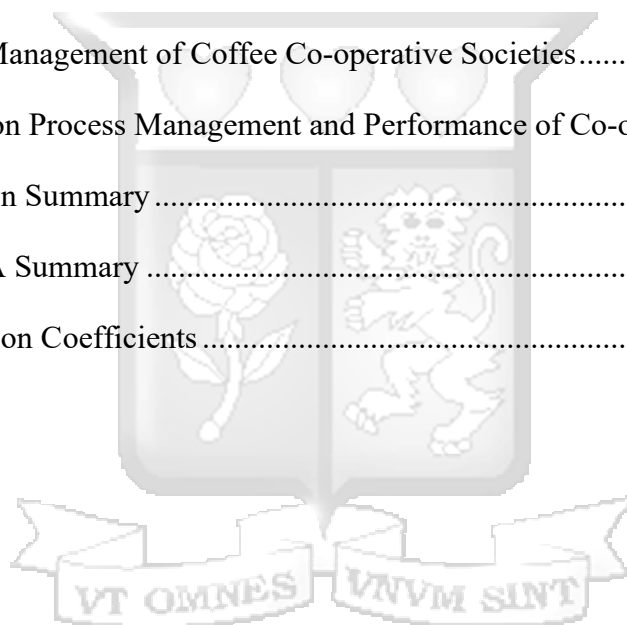
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LIST OF ABBREVIATIONS

3SLS	Three Stage Least Square
AIS	Accounting Information Systems
GDP	Gross Domestic Product
ICO	International Coffee Organizations
KCCGA	Kiambu County Coffee Growers Association
PDCA	Plan Do Check Act
SSA	Sub-Saharan Africa
TQM	Total Quality Management
USDA	United States Department of Agriculture



DEFINITION OF TERMS

Leadership management	Leadership management entails the development of an effective vision, delivery of the vision to other stakeholders, and solving issues arising due to the identified vision (Ross, 2017).
Organizational performance	Organizational performance is multi-dimensional, and different aspects comprise the way through which the operations are evaluated to establish the set organizational goals (Katchova & Enlow, 2013).
Process management	Process management is defined as a collection of actions of monitoring and planning in the performance of a business process (Trkman, 2013).
Quality	Quality is a significant component of any production or service which is essential in keeping customers satisfied (Chaudary, Zafar, & Salman, 2015)
Quality focus	Quality is the key element of satisfying customers, improving the profitability of the organization, and economic advancement of a country (Chaudary, Zafar, & Salman, 2015).
Total quality management	TQM entails all the efforts in the organization in establishing a permanent climate through which the organization can continuously improve its capabilities in ensuring there is the delivery of high-quality services and products to customers (Laux, Mosher, & Hurburgh, 2015).

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Agriculture is the backbone of the global economy, it plays a major role in enhancing food security and poverty alleviation in Sub-Saharan Africa (SSA), employing an average of 65-70 per cent of the African population (Giller, et al., 2021). Ahmed, Gui, and Liu (2022) assert that growth in the agricultural sector is two to four times more effective in raising incomes among the global poor. Irungu (2019) opines that strengthening agricultural systems is essential to facilitate sustained economic growth in African states. Despite the importance of agriculture to the global economy, Giller et al. (2021) assert that the sector is highly vulnerable to climate shocks and price fluctuations, and in recent years, manufacturing and service sectors have become more attractive to investors. The study by Chang'alwa and Kimaku (2022) provides evidence that corporate-level strategies employed can make firms in the co-operative sector become more competitive in both local and international markets.

The importance of agriculture to African countries' development warrants that firms in the sector be empowered to secure their performance (Irungu, 2019). In Kenya, for instance, agricultural products are the country's largest foreign income earners, with tea, horticulture, and coffee accounting for an annual average income of Sh100 billion, Sh50 billion, and Sh22 billion annually (Nyoro, Agriculture and rural growth in Kenya, 2019). Coffee sector performance has been fluctuating globally (Baddini, 2016), despite the crop being a key export player for close to a century. Globally, coffee is one of the most traded agricultural products, with an estimated value of 19 billion American dollars, signifying 70% of coffee export (Salado, 2018). The coffee industry, with a huge financing boost of 83 billion American dollars, can offer employment to 125 million individuals who work in different parts of the industry (Anh & Bokelmann, 2019). Brazil is the biggest coffee exporter, accounting for more than 35% of global coffee exports. Vietnam (15%), Indonesia (9%), and Colombia (7%) are the other largest coffee producers (Pham, Reardon-Smith, Mushtaq, & Cockfield, 2019). North America and Europe are the biggest coffee consumers, consuming over 58% of global production (Grabs & Ponte, 2019).

In Africa, Ethiopia, Uganda, Zambia, Zimbabwe, Ivory Coast, and Kenya are the biggest coffee producers, accounting for 57 per cent of all the coffee produced in the continent (Kuma, Dereje, Hirvonen, & Minten, 2019). Data from the ICO (2022) shows that while the biggest producer, Ethiopia, produced 7375 thousand sixty kg bags in 2021, Kenya produced only 775 thousand

sixty kg bags. In contrast, Brazil produced 69000 sixty kg bags, showing a significant gap in coffee production among African countries. The ICO (2022) data further shows a fall in coffee production in Kenya since 2018, despite exports of horticultural produce increasing in the same period (Tyce, 2020). According to Tyce (2020), coffee ceased to be Kenya's top exporter and has been overtaken by horticultural producers who adopted private sector management policies stimulated by foreign investment. Kiprono (2019) avers that among coffee exporters, aside from trade openness and domestic and foreign production, institutional quality is a key determinant of an organization's competitive power.

Kenya's coffee production has been regressing in recent years (ICO, 2022), and Aragie (2018) asserts that poor performance in the sector has seen coffee-producing countries in Africa increasing diversification and reducing their reliance on coffee as foreign income earner. Glatzer, Alpert, Britain, and Conway (2014) reported that Africa's coffee sector was untapped and underperforming in 2014, and this is corroborated by Gichichi, Mukulu, and Odhiambo (2019), whose study shows lack of access to stable financing has led to the underperformance of Kenyan small scale farmers. Most of these operate in cooperative societies, which account for 60 per cent of Kenya's coffee production (Gichichi, Mukulu, & Odhiambo, 2019). In 2017, for instance, while Kenya produced 42,037 metric tonnes, 44% came from coffee estates, while (56%) came from smallholder coffee farms organized through producer co-operatives.

While the ICO (2020) reports that the area under coffee production increased from 109,000 hectares in 2012/2013 to 115,570 hectares in the 2018/2019 crop years, coffee production dropped from 930,000 sixty-kilogram bags in 2018 to 775,000 sixty-kilogram bags in 2020. Various researchers report different contributions to Kenya's coffee production problems, such as the attractiveness of more lucrative crops and alternative sources of income such as real estate, climatic changes, and outdated farming practices (Kihoro & Gathungu, 2020; Lemma & Megersa, 2021). Cheluget (2016) notes that despite the Kenyan government's attempts to turn around the fortunes of coffee farmers, the upheavals that have afflicted this crop have seen trends changing with increasing small-scale farmers abandoning the crop on the farms or, to the extreme, cutting down the whole crop and using the land for other promising alternative crops.

According to Venancio et al. (2020), drought in Brazil has had a significant impact on coffee production in the country, and global demand for coffee products has increased significantly. Sabari's (2020) analysis asserts that enforcing corporate governance practices, establishing ownership transfer procedures, and securing stable financing would improve coffee production

within co-operatives. Sequeira and Andrawina (2021) advance that superior management support and investment into emerging technologies increased the financial performance and efficiency of Cooperativa Café Timor (CCT) company in Indonesia. Maina, Mburu, and Egelyng (2019) argue that implementing continuous improvement practices would guarantee high-quality products and increase the valuation of coffee from specific regions. This study focused on investigating the impact of total quality management practices on the organizational performance of coffee co-operatives in Kiambu County.

1.1.1 Total Quality Management Practices

Total Quality Management (TQM) is a management principle that places continuous effort on improving the quality of both products and processes to ensure long-term customer loyalty and satisfaction (Anil & Satish, 2019). The approach first appeared in the United States but was first implemented in Japan after being introduced into the country by Edward Deming and Joseph Juran (Zakki, 2021). According to Chaudary, Zafar, and Salman (2015), TQM is implemented by managers who recognize the value of quality assurance and Duran, C'entinder, and Sahan (2015) aver that TQM is a source of competitive advantage. TQM plays a key role in creating an environment in which a company continuously promotes its capacity to produce high-quality outputs and give high-quality services to clients (Ross, 2017). According to Shafiq et al. (2019), adopting a TQM philosophy helps firms improve management performance, satisfy and increase customer numbers, increase efficiency and save costs.

Quality management is a multidimensional construct that consists of several elements, which include leadership management, factual approach to decision-making, process management, supplier management, continuous improvement, quality focus, employee management, customer focus, and system approach to management (Nguyen & Nagase, 2019). Empirical evidence points to a host of benefits for firms that implement TQM philosophies. Nguyen and Nagase (2019) associate TQM implementation with customer satisfaction, while Rusydi et al. (2021) report improved realization of customer expectations upon implementing process improvement and employee retention strategies. TQM principles promise to improve performance by improving efficiency, human resources management, and product quality, thus satisfying customers and inspiring their loyalty (Pambreni, Khatibi, Azam, & Tham, 2019).

Research on the relationship between TQM and organizational performance has used different dimensions. Antunes et al. (2021) determined that TQM dimensions of leadership/management's commitment, benchmarking, involvement/empowerment of employees, and continuous improvement have a positive and significant effect on an

organization's process innovation. Antunes et al. (2018) opine that TQM practices include continuous improvement, leadership practices, customer focus, and continuous improvement. Sotirelis and Grigoroudis (2021) affirm that TQM entails the participation of all employees to improve processes, products, services, and the culture in which they work. Keinan and Karugu (2018) collapsed management commitment and employee improvement into leadership management practices, quality focus, and continuous improvement dimensions of TQM.

According to Sweis, Asma'a, Amayreh, and Al-Sayyed (2019), there are ten main TQM dimensions, and there is a lot of inconsistency when examining the implementation of TQM practices. The researchers aver that the most significant TQM dimensions encompass elements of continuous improvement, customer focus, top management support, and employee involvement. This study will use the above dimensions when examining TQM practices and their impact on the performance of coffee cooperatives.

1.1.2 Organizational Performance

Organizational performance is a critical aspect of successful organizations. Performance is the act of undertaking the operations of a firm through efficient and effective use of resources (Ali, 2016). Organizational performance is multi-dimensional and different aspects comprise the ways through which the operations are evaluated to establish the set organizational goals (Katchova & Enlow, 2013). It involves the extensive coordination of efforts and assets to accomplish an organization's main goals and objectives (Alosani & Yusoff, 2018). Organizational performance can be measured from financial and non-financial viewpoints. While most business research extensively focused on financial measures of performance (return on investment, profitability, market share, sales, revenues and costs), Kaplan and Norton (1992, 1996) developed a tool that would incorporate both dimensions of performance; the Balanced Scorecard (BSC).

The BSC is a tool that bases performance factors around customer perspective, internal workflows, and growth perspectives to enable managers to track performance by assessing both financial and operational metrics. The BSC allows executives to track performance from four key perspectives; customer orientation, organizational effectiveness, learning, and growth. A cooperative society's performance is best measured by determining the quantity of coffee produced, the number of farmers served, the quality of products, and the bargaining power (Kamakia, 2016). Shumeta and D'Haese (2018) indicated that the performance of co-operatives could also be measured by the technical support given to farmers, members' economic participation, quality of coffee production, value-added operations, including technology

integration, and supply management. Mugwe (2014) revealed that the success of a co-operative could be measured by the pay-out rates, credit accessibility, investments in the community, and promptness of paying farmers.

The BSC tool has been employed by multiple researchers to measure organizational performance (Mehralian, Nazari, Nooriparto, & Rasekh, 2017; Galavandi, 2016; Kilile, Munga, & Were, 2019). Shin and Konrad (2017) measured organizational performance by analysing four key dimensions; financial, customer, internal processes, and innovativeness and learning. Morocco's Farissi, Oumami, and Beidouri (2020) measured food processing firms' performance using Kaplan and Norton's (2005) improved BSC model. Tai (2021) employed similar dimensions when measuring the effect of knowledge management on coffee factories' performance in Kiambu county. This research used the above measures in the assessment of the organizational performance of coffee co-operative Societies in Kiambu County. Hence coffee co-operatives' performance was evaluated by analyzing the customer's perspective, financial perspective, internal processes transformation, and organizational learning.

1.1.3 Coffee Co-operative Societies in Kiambu County

A co-operative society is a financial establishment that governs finances, and markets, amongst other obligations, the efforts of a group of individuals who are involved in agricultural activities (Assfaw, 2018). On the other hand, Shumeta and D'Haese (2018) contextualized a co-operative as peoples' autonomous relationship united willingly to attain their social, cultural as well as economic wants through jointly owned and democratically controlled businesses. Agricultural co-operative societies play a major role in a country's economic development. These co-operatives offer major services like marketing, supply, and specialized services to the farmers (Wedig & Wiegratz, 2018).

Globally, coffee farmers from cooperative societies take advantage of economies of scale and serve as bargaining platforms in their businesses. Coffee in Kenya is managed through two systems; farmer-led systems and co-operative systems (Wedig & Wiegratz, 2018). Any factor that negatively affects the production of coffee deals a major blow to the performance of Coffee Co-operative Societies (Okem & Stanton, 2016). The performance of the Coffee Co-operative Societies, which ensures the livelihood of more than 700,000 smallholder coffee farmers, is crucial in raising the socio-economic status of the smallholder coffee farmers (Nyoro, Agriculture and rural growth in Kenya. , 2019).

Within the last three decades, coffee production and exports in Kenya have declined substantially, especially in the smallholder co-operative sub-sector, which accounts for over

60% of Kenya's total coffee production (Bichanga & Mwangi, 2014). The low earnings have seen about 70% of smallholder coffee entrepreneurs in the country turn away from their agricultural mainstay into innovative agribusiness enterprises in desperate measures to earn income and uplift their living standards (Kanyua, Ithinji, Waluse, & Wairimu, 2015). Kenya has over 924,000 farmers who are affiliated with agriculturally based co-operatives. They enjoy services related to technology transfer, agricultural marketing, and financial services that include savings, credit, banking, and investment (Josephine, 2015).

Imran, Hamid, and Aziz (2018) aver that empirical literature has established a clear link between TQM implementation and improved organizational performance. Their study was able to ascertain that the application of TQM practices improved the export performance of manufacturing firms in Pakistan. Malaysia's Amin, Aldakhil, Wu, Rezaei, and Cobanoglu (2017) found a positive association between TQM adoption and improved business operations, employee relationships, and customer satisfaction. Zakki (2021) suggested that TQM implementation in Indonesian coffee societies would increase the quality of coffee production by removing elements that lower quality, enable coffee producers to design products according to customer preferences, and enables the firms to transform their operations with the increased focus on meeting customer needs. Shafiq, Lasrado, and Hafeez (2019) found that TQM implementation significantly improves textile firms' performance in Morocco. Similar findings were reported in Budotela's (2016) study on food and beverage firms' performance in Tanzania. Gezahegn (2020) showed how TQM implementation improved coffee producers' performance in Ethiopia. The study showed how the organization's capability and operating environment impact the extent of implementation of TQM practices. Investigating TQM implementation in Imara Sacco, Wamwati (2016) determined that TQM improves Sacco's performance.

While these studies show the existence of a significant relationship between the adoption of TQM practices and organisational performance, none of the studies has provided conclusive evidence on how TQM implementation impacts the performance of coffee co-operatives in Kiambu county. This study focused on investigating how the implementation of TQM practices influences the performance of the 23 Coffee Co-operative Societies licensed and operational within Kiambu County, Kenya.

1.2 Statement of the Problem

The agricultural sector is an important sector in the economy, and its successful performance is crucial to economic growth and poverty reduction, especially in developing economies (Karuri, 2020). The Kenyan government has employed various initiatives to increase the private sector's ability to overcome key constraints and improve the productivity of agricultural firms (Tyce, 2020), and with devolution, county governments are banking on agribusinesses to fill the income gap and reduce poverty (Kanyua et al., 2015). Coffee is one of Kenya's biggest agricultural income earners, and its performance has been linked to economic development (Cheluget, 2016). However, despite the importance of the subsector, the latest reports from the International Coffee Organization show that coffee production has reduced significantly since 2018, with Kenya's production reducing from 820 thousand sixty-kilogram bags in 2018 to 775,000 sixty-kilogram bags in 2020. In contrast, Africa's biggest coffee producer, Ethiopia, produced 7375 thousand sixty-kilogram bags in 2020 (ICO, 2020).

Both Glatzer et al. (2014) and Gichichi et al. (2019) agree that Kenya's coffee sector is untapped and underperforming. Karuri (2020) associated the challenges within the coffee industry with climate change factors and management challenges. Kamakia (2016) and Irungu (2019) identified the misappropriation of farmer's revenue by co-operative societies, underdeveloped policies and regulations, outdated marketing strategies, and poor coordination between agencies as the main challenges to the subsector's growth. The Kenyan government has implemented policies designed to facilitate faster movement of coffee products and to guide quality determinants to ensure local farmers' products can compete in international markets (Tyce, 2020). Kiprono (2019) studied on determinants of coffee export earnings in Kenya and reported that institutional quality factors have a positive influence. Barjolle, Quiñones-Ruiz, Bagal, and Comoé (2017) demonstrate how the commercialization of the coffee subsector has seen Colombia and Kenya improve their product's competitiveness based on the differentiation strategy, creating strong brands that take advantage of their position to better organize the global supply chain.

Empirical research into co-operatives reports a myriad of challenges affecting industry players, such as poor leadership commitment, poor governance, low capital base, corruption, and insufficient knowledge and skills (Assfaw, 2018; Gichichi et al., 2019). The challenges have sparked research into how performance can be improved. In Mexico, Peralta and Garza (2018) researched collaborative practices in the coffee sector and determined that collaborative management has reduced transaction costs and increased farmers' income. This study

presented a contextual gap as it only investigated one aspect of TQM. Anggadini, Surtikanti, Saepudin, and Saleh (2021) researched TQM and the performance of Indonesian coffee exporters and concluded that focusing on continuous improvement has a more significant impact on performance than focusing on customer satisfaction and employee empowerment factors. This study was based on Indian cooperatives. Tsou, Huang, Liu, and Do (2021) researched the effects of CSR and TQM on firm performance and determined that the two variables are critical success factors that increase a firm's competitive advantage and market share. The current study will not investigate CSR factors.

Gezahegn (2020) reported that Ethiopian coffee co-operatives improved their quality output by adopting process management and quality focus strategies, while Irungu (2019) asserts that entrepreneurial orientation and strategic planning ability have a significant impact on coffee co-operatives' performance. These studies presented conceptual gaps. Kuguru (2016) is adamant that coffee co-operatives' performance can be enhanced by adopting TQM practices which ensure organizations commit to quality production. This study addressed quality focus dimensions of TQM. However, according to Panuwatwanich and Nguyen (2017), implementing quality focus can be costly, and Kuguru (2016) shows how farmers' production capacity can impact the quality of coffee produced. Further, according to Gichichi et al. (2019), despite a sustained focus on guaranteeing quality, coffee production in Kenya has remained stagnant, and farmers have been reporting reduced incomes. These studies provide evidence that coffee co-operatives' performances are influenced by multiple quality factors, with different studies reporting varied effects. Ngugi (2020) avers that research on Total Quality Management has to be expanded into smaller subsectors to understand their impact on the Kenyan economy. This study solved this empirical gap by examining the effect of TQM practices on the organizational performance of Coffee Co-operative Societies in Kiambu County.

1.3 Objective of the Study

1.3.1 General Objective

The main purpose of the research was to determine the effect of total quality management practices on the performance of Coffee Co-operative Societies in Kiambu County.

1.3.2 Specific Objectives

- i. To determine the effect of leadership management on the performance of Coffee Co-operative Societies in Kiambu County.

- ii. To establish the effect of quality focus on the performance of Coffee Co-operative Societies in Kiambu County.
- iii. To determine the effect of process management on the performance of Coffee Co-operative Societies in Kiambu County.

1.4 Research Questions

- i. What is the effect of leadership management on the performance of Coffee Co-operative Societies in Kiambu County?
- ii. What is the effect of quality focus on the performance of Coffee Co-operative Societies in Kiambu County?
- iii. What is the effect of process management on the performance of Coffee cooperatives in Kiambu County?

1.5 Scope of the Study

The research was focussed geographically on the examination of the performance of the 23-coffee co-operative Societies in operation within Kiambu County. The study contextually reviewed how the various quality management practices (leadership management, quality focus, and process management) have influenced the performance of the coffee co-operative Societies within the county. The scope of the study was limited to a cross-sectional examination of the performance of the Coffee Co-operatives Societies between October and November 2021.

1.6 Significance of the Study

1.6.1 To Policy Makers

This study is expected to be of benefit to co-operatives and governments since its recommendations will highlight the essential tenets that would increase the quality of coffee products. This would enhance policy administration regarding co-operative societies and coffee regulations which can be aligned with their quality management practices to drive better performance within the industry.

1.6.2 To Industry

This study is expected to be beneficial to the management team of the coffee co-operative society because they would implement the recommendation to improve their performance. By establishing and identifying best TQM practices, this study will provide literature evidence that managers can use to justify transforming their processes to realize quality improvement and better firm performance. Further, the management of the co-operative Societies could also

utilize the study results in developing new production practices that can help in boosting the performance of the industry.

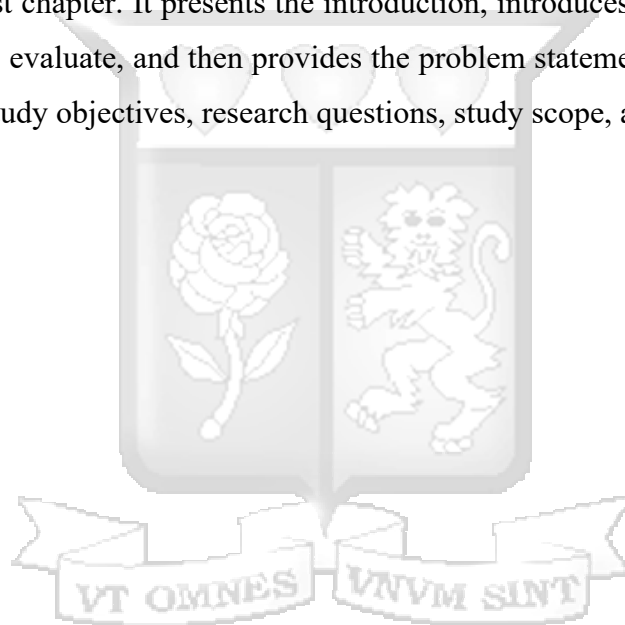
The results are also expected to be critical to individual farmers as they can help identify the shortcomings in their performance gaps and how they can integrate quality practices to spur the production and performance of their co-operatives.

1.6.3 To Scholars

The study will also be key to expanding the available scholarly work on how various quality management practices can spur the performance of co-operatives, specifically coffee cooperatives in Kenya.

1.7 Chapter Summary

This is the study's first chapter. It presents the introduction, introduces the different concepts that the study seeks to evaluate, and then provides the problem statement. It then presents the general and specific study objectives, research questions, study scope, and significance.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presented a summary of past literature on the variables of the study. It first presents a literature review of the theory underpinning the study, and then proceeds to present an empirical review of the study variables. Thereafter, it presented the summary of research gaps and conceptual framework.

2.2 Theoretical Review

This section presented a review of the theory that grounded this study. The study was premised on the Deming theory of quality management and the contingency theory of organizational performance. Deming's theory of quality management anchored TQM practices that have been linked with improved firm performance, such as quality focus and process management. Deming (1986) identified the critical success factors of TQM, while the contingency theory explains the leadership management styles and their impact on organizational orientation since it focuses on how leadership actions influence internal organizational contexts. This study will rely on these two theories to capture the context-specific factors that influence quality within coffee co-operatives. Deming's quality management theory will anchor on quality focus and process management aspects, while contingency theory will identify the leadership management practices that influence the successful implementation of TQM practices within specific organizational contexts considering Saccos has differing managerial principles.

2.2.1 Deming Theory of Quality Management

This theory is attributed to the works of Deming (1986) and attributes responsibility for making financial decisions to the top management. According to this theory, the management is responsible for setting up the system that the rest of the organization will follow, and these systems are responsible for most of the firms' levels of performance. Deming (1986) affirmed that the level of commitment of the top management towards promoting quality management is a key predictor of firms' performance since the management is responsible for investing in internal organizational processes, creation of corporate culture and selection of suppliers and is also in charge of managing the firm's relationships with associated stakeholders. Deming's

Quality Management Theory provides a path that businesses can follow in elimination of poor-quality control issues through enhanced managerial techniques (Keinan & Karugu, 2018).

Quality management practices have been associated with improved organizational performance and have been adopted as a tool for sustaining competitive advantage (Chauhan & Nema, 2017). As a resource, quality management strategies are specific to an organization, and they are difficult to duplicate or replicate. Gezahegn (2020) associated quality management with the creation of a system that fosters cooperation and learning to facilitate the implementation of process management practices. Through the facilitation of learning, the management ensures that there is always room to improve processes, products, and services to meet stakeholder/customer expectations (Wanjogu & Waithaka, 2021). Thus, this theory supports the adoption of customer focus strategies as a means of improving firm performance. Further, Deming believed that a systematic approach to problem-solving is key to improved decision-making, and the researcher highly advocated for the Plan Do Check Act (PDCA) cycle of continuous improvement (Santini, Pinheiro, Wakulicz, & de Lima, 2021).

This concept calls for companies to constantly improve performance to meet and even exceed customer expectations, thereby resulting in improved firm performance, and managers are considered key to improving service delivery in line with consumer expectations (Wanjogu & Waithaka, 2021). Deming (1986) called for the top management to apply principles and practices that reduce costs, reduce resource wastage, rework, staff attrition, and litigation while reducing costs, increasing quality, customer loyalty, worker satisfaction, and, ultimately, profitability. Quality management practices increase efficiency and effectiveness by creating unique competencies that high-performing firms rely on (Menza & Rugami, 2021). Deming's quality management theory has been criticized for failing to consider that it is not every organization that can change its culture, and changing an organization's orientation may be costly and time-consuming (Chen, Reyes, Dahlgaard, & Dahlgaard-Park, 2021). Further, Sahu and Rathod (2022) aver that TQM can stifle innovation once customer demands cease and that TQM has more than ten components that impact firms differently. Despite its criticisms, Deming (1986) asserts that focusing on improving organizational efficiency is key to successful organizations. Further, this theory will be complemented by the contingency theory, which reflects on how management's decisions matter in specific conditions.

This theory informs the total quality management practices which can be implemented within the coffee co-operatives. The theory advocates for the management to strive to implement quality management practices that can help expand the performance of the organization. It is

relevant for this study since it explains how coffee co-operatives can improve the quality of their coffee products through the adoption of Total Quality Management policies and practices. As such, the theory is relevant in this study in detailing how quality management practices were conceptualized in this study and their relationship with performance outcomes. The theory underpinned two key QMP practices; quality focus and process management within the coffee co-operatives.

2.2.2 Contingency Theory

The contingency theory is credited to Fred Edward Fiedler in his landmark 1964 article, "A Contingency Model of Leadership Effectiveness." Fiedler (1964) argues that there is no single best set of strategies that can guide an organization to effectively realize its goals (Abdullahi & Kinyua, 2018). According to this theory, no single managerial decision or organization structure is efficient for all organizations at all times. Instead, there are a set of factors that determine the best strategy that should be employed and those that should not (Naidu, Singh, & Narayan, 2021). These are contingency factors, and they have an effect on the direct relationships between certain independent and dependent variables within an organization. This theory is sometimes referred to as 'situational,' 'circumstantial,' or 'best fit' theory since it denies the universal prescription of managerial and structural policies and practices (Abba, Yahaya, & Suleiman, 2018). Structural contingency theory calls for a fit organization plans with various contingencies, such as uncertainty, strategy, and size (Park, 2020). Contingent factors also include technology, information systems, culture, and the external environment that influence how an organization designs and implements its strategies. Organizations can only achieve optimal performance by ensuring that there is a fit between all contingencies (Ogeto & Thiongâ, 2020). Contingency theory aims to identify the conditions under which organizations can realize best performance outcomes.

McAdam, Miller and McSorley (2019) posits that according to the Contingency theory, firms can increase their effectiveness by matching organizational structure to contingencies. The researchers affirm that while some decisions can be effective in certain situations, they can be disastrous in others. Titus Jr and Anderson (2018) postulated that effective solutions are dependent on the circumstance. From a structural point of view, the contingency theory looks at organizations as a function of their environment, size, resources and strategic plans as contingency factors (McAdam, Miller, & McSorley, 2019). Furthermore, the Maletič, Maletič, and Gomišček (2018) study hypothesized that the structure of a firm is contingent on contextual factors such as size, environment, and technology capabilities. The contingency theory asserts

that aligning the organization's strategy with the environment improves its performance (Chebiego & Kariuki, 2018). Kaluai and Muathe (2020) argue that the contingency theory serves to help management to identify the best practices that organizations should adopt depending on the situation that they are facing. It helps in the determination of the key variables that should influence strategic decisions (Al-Surmi, Cao, & Duan, 2020).

Despite its strengths, the contingency theory has been criticized for failing to explain why certain leadership styles are effective in some situations and not effective in others (Henkel & Bourdeau, 2018). Further, according to Ren, Xie, Zhu and Warner (2018), the contingency theory does not explain what should be done when a leader's qualities mismatch the workplace. Despite the above criticisms, contingency is considered a valuable tool when trying to achieve effective leadership as it provides a broad scope through which leadership is understood more effectively. The theory has also been identified to predict the type of leadership that would be more ideal in specific contexts (Ren et al., 2018). The theory has been employed extensively in empirical research such by Farah, Munga and Mbebe (2018) who examined competitive strategies in airline firms, Otieno, Ogutu, Ndemo and Pokhariyal (2020) in state corporations, Murimi, Wadongo and Olielo (2021) in hotels and Indiya, Mise, Obura and Ojera (2021) within universities.

This theory is important to this study as it supports the assertion that application of different practices produces different results based on different situations. It argues that the way a manager leads impacts how organizations perform. It further stresses the need for carrying out a proper evaluation of contextual conditions before selecting of the organization's structure, strategy and design that achieve the organization's goals. According to this theory, coffee co-operatives' managements influence strategic alignment and employee commitment to quality dimensions. It calls for managers to be flexible and enact different leadership styles to guarantee employee satisfaction.

2.3 Conceptual Review

2.3.1 Total Quality Management Practices

Total Quality Management (TQM) is a management philosophy used to improve organizational efficiency and competitiveness. TQM is a management philosophy that seeks to direct organizations towards meeting customer needs, and constantly improving quality and performance (Ghanameen, 2019). TQM is important among co-operatives since it directs how to streamline operations and eliminate resource inefficiency, resulting in higher income among members (Eniola, Olorunleke, Akintimehin, Ojeka, & Oyetunji, 2019). TQM quality factors

can be soft or hard aspects, depending on the degree of financial investment. The top management commitment and involvement, employee empowerment and customer focus are soft aspects, while factors that facilitate system improvement and quality guarantee are hard aspects (Keinan & Karugu, 2018). Sweis et al. (2019) opine that research on TQM implementation varies depending on the setting and condition, considering quality is determined by the customers.

Abbas and Kumari (2021) used leadership commitment, strategic planning, customer focus and human resource management focus as the TQM components. Tsou, et al. (2021) used process management, leadership management and quality focus as the main TQM dimensions. Al-Zoubi et al. (2019) aver that TQM dimensions of teamwork, customer focus, top-management commitment, process and resource management are the best practices for TQM implementation in any health care setting. Anggadini, et al. (2021) aver that three basic concepts of TQM are key to successful TQM implementation; management commitment, total participation and continual improvement. The researchers assert that these elements have improved company performance in Indonesia. Dhieu (2019) also affirmed that TQM practices involve leadership management, process management and a focus on quality control. Kirugumi (2015) affirmed a positive relationship between these factors and coffee co-operatives' revenue generation. Thus, this research used similar parameters by investigating how leadership management, process management, and quality focus influence the performance of coffee co-operatives in Kiambu County.

Leadership management entails the development of an effective vision, delivery of the vision to other stakeholders, and solving issues arising due to the identified vision (Ross, 2017). The management has the role of ensuring they motivate and assist employees in being competitive through the utilization of helpful leadership styles. Therefore, the manager's use of effective leadership methods is to uphold standards of excellence in the professional development of the members of the organization (Cho, 2017). Promoting creativity, innovation, and stimulating subordinates is one of the ways leaders can improve organizational performance by improving their performance and challenging their value system (Jumady, 2020).

Process management is defined as a collection of actions of monitoring and planning in the performance of a business process (Trkman, 2013). Process management can also be described as the application of skills, knowledge, tools, systems, and techniques to effectively define, measure, visualize, control, improve and report the processes, with the main goal of these activities being to foster organizational outcomes (Kwamega, Li, & Abrokwah, 2019). In their

research, Savov, Chebeň, Lančarič, and Serenčėš (2017) found out that successful process management practices monitor data on quality to manage processes effectively. The approach makes it possible to figure out and correct errors effectively on a timely basis. Improvement of the approach entails monitoring the entire process and continuous control of data quality

Quality focus refers to the continuous efforts to improve the quality of an organization's outputs, including goods and services, through the continual improvement of internal practices. Quality focus is an important and challenging component of an organizational strategy that challenges management to provide a means to strive to improve quality to meet customers' expectations for good quality (Brenes, Montoya, & Ciravegna, 2014). Quality is the key element of satisfying customers, improving the profitability of the organization, and economic advancement of a country (Chaudary, Zafar, & Salman, 2015). Quality is deduced to having roots in many disciplines and business tendencies, including customer research, strategy, operations, engineering, management, and marketing (Savov, Chebeň, Lančarič, & Serenčėš, 2017). Through quality focus, the organization targets to meet customers' needs and significantly lower the operational costs resulting from sub-standard quality by enforcing an improved management system (Abeykoon & De Alwis, 2015).

2.4 Empirical Review

This section presents a review of studies that relate to the study variables. The section reviewed studies on leadership management, quality focus, and process management.

2.4.1 Leadership Management and Performance

Farmers in post-Soviet countries are extremely skeptical about the collectivization of farms, according to a study by Hejkrlik, Chaloupkova, and Sokolska (2021), making it paramount for leaders to have team leadership skills to ensure sustainable farmer co-operatives' performance. The study focused on farmers co-operatives operating in Ukraine, Georgia, and Moldova to examine how leaders determine members' commitment. An explanatory sequential mixed approach was used in the analysis of leadership skills from multiple perspectives using quantitative and qualitative methods. A partial least squares structural equation model was used in examining the relationship between the study variables. The analysis revealed that leaders play a crucial role in building trust and cohesion within the group. Their skills and style are influential in determining members' commitment to the group's success. The study recommended that co-operatives educate their members on principles and the importance of

progressive professionalization to address challenges and improve the co-operatives' sustainability.

An Indonesian study sought after the effect of entrepreneurial leadership on co-operative employees commitment, postulating that employee commitment has a positive effect on credit co-operatives' organizational performance. The study by Supartha and Saraswaty (2020) sampled 210 co-operative societies and collected data using interviews, observation, and questionnaires. Path analysis was used in the analysis of the collected data. The study showed that entrepreneurial leadership and organizational commitment all influence co-operative performance in a positive and significant way. Further, entrepreneurial leadership was determined to significantly influence employees' organizational commitment. Conclusions showed that strengthening entrepreneurial leadership would increase organizational commitment. In Tanzania, Mgeni (2015) also established a significant strong positive correlation between entrepreneurial leadership style and SME's performance.

Michira and Anyieni (2018) noted the importance of successful strategic plan implementation in their study on the effect of leadership on the implementation of strategic plans of Mwalimu Sacco in Nairobi. The upper echelons theory guided the research, which adopted a descriptive research design. The study adopted a census survey. Analysis revealed that the qualities of a leader, their management styles, and their personality were aspects that had a significant impact on successful plan implementation. The study also established that while some managers were autocratic in nature, Mwalimu Sacco preferred leaders with transformational, transactional, democratic, and laissez-faire styles of management. This was a case study; the current study focused on all registered Co-operative Societies in Kiambu County.

Kihiu (2016) researched on TQM practices and their impact on the performance of Saccos in Kiambu in a descriptive study. The study used inferential and correlational analysis and focused on employee engagement, customer focus and quality leadership as the main TQM practices. The analysis revealed a significant positive impact of TQM practices on Sacco's performance. The study revealed that customer focus strategies such as offering personalized services and establishing customer feedback mechanisms, and regularly training employees, involving them in decision making and encouraging creativity are key to ensuring firms can respond to the competition. The study also established a positive association between transactional leadership styles and Saccos' profitability and asset base. This study did not highlight the reason why some firms make losses.

Garissa, Mohamed, and Bett (2018) focused on the effect of leadership practices and on the performance of Saccos. The study which adopted a descriptive research design, was anchored on the contingency theory, the traits theory, the behavioral theory, and the situational theories of leadership. The study established a strong influence of leadership styles on Sacco's performance. The analysis determined that democratic leadership, transformational leadership, and transactional leadership were favored upon since they have a positive influence on overall organizational performance. The structures and culture that leaders propagated were also associated with the level of employee performance. The study, however, noted that ethical leadership had a negative effect on Sacco performance.

2.4.2 Quality Focus and Performance

Ha (2020) focused on China, Vietnam, South Korea, and Japan to investigate the effect of supplier relationship management on the performance of manufacturing firms. The study affirmed that co-operative societies play a key role in financing manufacturing firms in various regions and that the quality of relationships that these financed firms maintained strongly influenced returns realized by the co-operatives. The study noted that the ability to satisfy five aspects of the customer's needs: quality, cost, delivery speed, on-time delivery, and flexibility all have a strong positive impact on manufacturers' performance. This empirical result reaffirmed the important role of developing and maintaining a long-term strategic relationship with suppliers since this was confirmed to be a source of competitive advantage. Firms improved operational performance through the adoption of quality improvement strategies, timely delivery, cost reduction practices, and flexibility enhancement.

In Indonesia, Dwi and Dini (2021) sought after the relationship between human resource quality and the performance of co-operatives. The study focused on fishing co-operatives in East Java and South Sulawesi districts. Specifically, the study analyzed the number of employees, their quality and responsiveness, and how they enhance customer satisfaction. For quality analysis, a service quality model was employed. The analysis determined that there was a strong positive relationship between employee quality and customer satisfaction. The employees' educational attainment level, salaries, medical benefits, holiday allowances, bonuses, incentives, social security, and severance pay packages were all determined to impact employee performance levels. Individual and collective employee capabilities were reported to be the main determinants of customer satisfaction, while responsiveness and the number of employees per branch had minimal effects since the quality of employees was already optimal.

This study adopted the quality analysis of fisheries; the current study focused on coffee co-operatives.

Agmas (2020) sought after the determinants of co-operatives' success in the North Gondar region of Ethiopia. The researcher reported that coffee farmers relied on quality assurance as a source of competitive advantage. The study involved 272 co-operatives, and the data collected was analyzed using a multiple linear regression model. The study collected cross-sectional data. From the analysis, the researcher affirmed that the rate of loan repayment, financial stability, group savings, membership fees, and the volume of business all impact co-operative success. Widman (2021) sought after the factors that determine co-operatives' resilience during the Covid-19 pandemic. The study followed an abductive qualitative case study and used semi-structured interviews from various Honduran coffee co-operatives. To assess organizational resilience, data was analyzed using the context and asset pentagon. The analysis determined that the organizations had increased investment in developing human capacity through training and provision of technology resources and social capital which increased organizational resilience. The development of human resources was noted as a form of assuring quality delivery even during periods of crisis.

Menza and Rugami (2021) sought after the quality management practices that influence the performance of deposit-taking SACCOs in Mombasa County. The study adopted a descriptive research design involving top managers and board members. Analysis was by inferential and descriptive statistics, and the primary analytical models were regression and correlation analysis. The study demonstrated that there exists a wide disparity in SACCO performance and that this disparity can be explained by the customer focus strategies adopted by the co-operatives; in managing their relationships with suppliers, the degree of employee involvement in planning and decision making, and the level of commitment of the top management to meeting organizational goals. Higher quality saccos were more profitable.

Mwebia (2020) investigated factors that determine performance among Co-operative Dairy Societies in Kenya, with a focus on selected co-operatives in Kiambu County. A Census survey was adopted in selecting the respondents, and analysis involved descriptive and inferential statistics. The study determined that performance in Dairy Co-operative Societies significantly improved after the introduction of employee training and the adoption of emerging marketing techniques. This implied that improving the quality of products and customer outreach impacts co-operatives' performance. The dairy industry was advised to invest in market infrastructure, breeding programs and focus on improving promotion channels, quality of milk, and

distribution of quality milk as strategies to improve performance. The researchers affirmed that co-operatives should promote professional management to realize sustained returns.

Wanjogu and Waithaka (2021) researched on quality management practices and their impact on the performance of micro finance firms, with particular reference to the effect of customer focus, quality improvement and manager commitment. The study used a descriptive design targeting the firm managers. Analysis determined that although the quality management practices improve organizational performance, the respondents that showed greater commitment towards continuous improvement showed higher organization performance. The study showed that continuous improvement involves commitment to quality assurance, process mapping to root out inefficiency and commitment to core business competencies determine the difference in performance outcomes. This study focused on microfinance firms whose main stakeholders are different from those in co-operative societies.

2.4.3 Process Management and Performance

A business process co-ordinate the behaviour of people, systems, information, and things to produce business outcomes in support of a business strategy (Anh & Bokelmann, 2019). Franken and Cook (2013) carried out an investigation into the impact of board structure and process on co-operative firms' performance. The study sampled 2,252 farmer, rancher, and fishery co-operatives listed in the United States Department of Agriculture - USDA Co-operative Statistics database and only involved board members. The study utilized at least a three-stage least squares approach (3SLS) to address the possible endogeneity of board and CEO characteristics and firm performance. The study determined that outside directors bring much-needed expertise and knowledge into the co-operative industry. Further, smaller boards and directors with high volume of equity capital were more effective in monitoring and control of organizational resources. However, while board diversity was associated with a greater understanding of the marketplace and provided an increased ability to solve problems, it had no significant impact on the firm's performance. This study failed to address other determinants of performance, such as leadership management practices; this study examined this gap.

In Malaysia, Rasit and Ibrahim (2018) investigated the impact of the integration of the Accounting Information System on business data management within co-operatives. The study formed its basis from the basic tenets of the Resource-Based Theory and carried out a literature review to ascertain certain study hypotheses. The review affirmed that accounting information systems (AIS) significantly improve co-operative performance. The study affirmed that AIS

technology adoption has resulted in significant improvements in information management, which improves management decision and contribute to overall performance. This study found a necessity for co-operatives to develop a uniform information management system across branches to improve service access and management of internal relationships. Building internal competencies and investment in IT infrastructural developments were determined to improve the integration of information systems among co-operatives which resulted in better relationship management. This study reviewed performance in terms of data management while the current study utilized financial performance measures.

Musa, Rashid, and Rashid (2016) carried out an examination into the correlation between members' participation and its effect on business performance among co-operatives, noting that Malaysian co-operatives were underperforming. The study adopted descriptive research and surveyed 148 members of Koperasi PTSS Berhad. The respondents were questioned on the extent of their involvement in decision making, share capital, and the usage of products and services, and these measures were compared against the firms' performance. The analysis established a strong positive effect of all the above constructs on the co-operatives' business performance. The study showed that the involvement of members through customer-centric strategies improved their use of the co-operatives' products and services hence improving the overall performance of the firm. This study assessed one TQM practice while the current expanded its scope to more practices.

Olang (2017) sought after the effect of conflict management on SACCOs performance in Kenya by focusing on Stima Sacco. The study adopted a descriptive survey research design, with data being analyzed using both descriptive and inferential statistics. The analysis revealed that negotiations and third-party interventions were essential conflict management strategies. However, communication was determined to have minimal effects in managing organizational conflicts. Recommendations were for the organizations to improve communication channels to facilitate conflict management. This study reviewed one organization while the current study reviewed multiple firms. Caroline (2020) affirmed that process management is key to increasing performance among commercial banks which are facing increased competition from their competitors. The study determined that strategic alignment, adoption of innovative technologies, process improvement, and employee involvement all have a strong impact on banks' financial performance in Kenya. This study sought data from banks which have different operating policies and requirements when compared to cooperatives.

Similarly, Nzilani (2019) found a positive relationship between conflict management strategies and co-operative organization's performance. The study focused on coffee co-operatives in Machakos County, Kenya. Systemic sampling was adopted in the selection of 305 employees from a population of 1500 employees. The study showed the approach taken by a firm to manage conflicts has a significant influence on employees' commitment and effectiveness at work. This study recommended the adoption of the collaborative approach to conflict management. The study associated this leadership style with improved productivity, enhanced teamwork, and the creation of an appropriate business environment that fosters employee productivity. This study addressed one TQM component limiting its findings.

Kibui and Moronge (2014) analyzed the effect of credit risk management practices on Harambee Sacco's financial performance. The study specifically sought the effect of credit policy formulation, client appraisal methods, automated credit risk monitoring and control methods, systematic defaulter follow-up, and loan defaulter reporting on the SACCO's financial performance. Simple random sampling was adopted in the study, which was descriptive in nature. The study associated credit risk management with significant impacts on profit generation. Analysis revealed that the SACCO used collateralization, guarantors, shareholding, and insurance to mitigate risks. Further, new technologies improved loan tracking, which enabled the firm to detect overdue loans. Sound risk management was hailed as a crucial factor for SACCO's success. Continuous improvement orientation was determined to improve organizational performance.

In Trans-Nzoia, Kisia, Okibo, and Wandera (2014) investigated the role of strategic management on the performance of Trans-Nzoia Teachers Sacco. Stratified random sampling was adopted in the selection of 44 respondents. The analysis determined that proper environmental management, strategic formulation, and strategy control and monitoring all have a strong positive effect on the performance of the SACCOs. The current study expanded the study to coffee cooperatives to present a clearer picture.

2.5 Summary of Research Gaps

The above review ascertained the existence of a relationship between the study variables and organizational performance. However, from the review, there are various gaps that were identified. The study by Hejkrlik, Chaloupkova, and Sokolska (2021), for instance, looked into the performance of farmers' co-operatives in regions which are highly suspicious of collective investments due to the effects of communist policies. The study by Supartha and Saraswaty (2020) adopted path analysis in a study focusing on entrepreneurial leadership and the

commitment of employees to co-operative firms' performance. Mohamed and Bett (2018) had a similar goal of assessing how leadership practices influence firm performance. This study specifically assessed Coffee Co-operative Societies. The Indonesian study by Dwi and Dini (2021) specified only one of this study's measures. This study incorporated human resource development as one of the measures under quality focus.

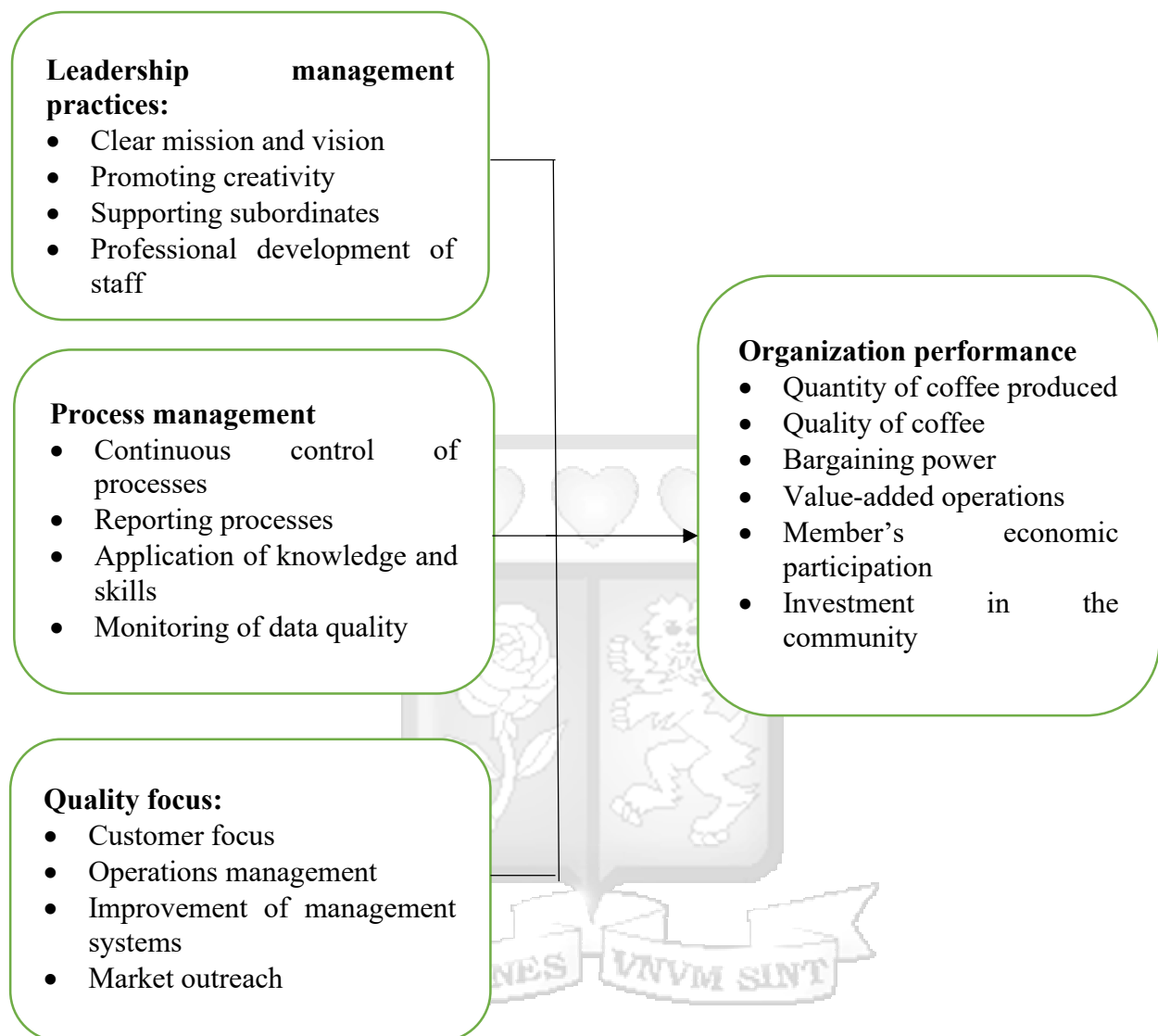
Menza and Rugami (2021) carried out a study on quality management practices, but it investigated the performance of deposit-taking SACCOs in Mombasa county. Mwebia's (2020) study sought after a similar relationship, but the study focused on select dairy co-operatives. Franken and Cook's (2013) study sought after the relationship between board structure and co-operatives' performance in the US. This study focused on smaller co-operatives in a smaller economy within a developing country. Further, it examined other factors of quality management. Rasit and Ibrahim (2018) investigated IT systems integration and business process performance. This study reviewed the impact of more quality management practices on firm performance. This same lack of depth in the examination into quality management can be found in the study by Olang (2017), which investigated how conflict management affects the performance of Stima Sacco. Although the above studies address various aspects of quality management practices and firm performance, most of them did not focus on Coffee Co-operative Societies. Further, none of the studies addressed all variables that this study explores. This study was premised on these gaps.

2.6 Conceptual Framework

The below conceptual framework is an illustration of how the top-quality management practices (leadership management practices, quality focus and process management) relate to the performance of Coffee Co-operative Societies in Kiambu County.

Independent Variables

Dependent Variable



Researcher (2022)

Figure 2.1 Conceptual Framework

The framework above in detail presented the constructs that were applied in measuring the variables of the study. The conceptualized research variables were operationalized on Table 2.1 below;

Table 2.1 Operationalization of the Study Variables

Variable	Indicators	Data collection tool	Data analysis	Supporting literature
Leadership management	<ul style="list-style-type: none"> • Clear mission and vision • Promoting creativity • Supporting subordinates • Professional development of staff 	Structured questionnaire; 5-point Likert scale	Descriptive analysis and inferential analysis	(Cho, 2017); (Jumady, 2020).
Quality focus	<ul style="list-style-type: none"> • Customer focus • Operations management • Improvement of management systems • Marketing outreach 	Structured questionnaire; 5-point Likert scale	Descriptive analysis and inferential analysis	(Chaudary, Zafar, & Salman, 2015); (Abeykoon & De Alwis, 2015).
Process management	<ul style="list-style-type: none"> • Continuous control of processes • Reporting processes • Application of knowledge and skills • Monitoring of data quality 	Structured questionnaire; 5-point Likert scale	Descriptive analysis and inferential analysis	(Kwamega, Li, & Abrokwah, 2019); (Savov, Chebeň, Lančarič, & Serenčės, 2017)
Organization performance	<ul style="list-style-type: none"> • Quantity of coffee produced • Quality of coffee products • Bargaining power • Value-added operations • Member's economic participation • Investment in the community 	Structured questionnaire; 5-point Likert scale	Descriptive analysis and inferential analysis	(Kamakia, 2016); Shumeta and D'Haese (2018); Mugwe (2014)

2.7 Chapter summary

This was the study's second chapter and it was focused on presenting the study's theoretical and literature review. It first presented the theoretical underpinnings guiding the study before embarking on a review of previous researchers' findings on the relationships between the study variables. It then presented a summary of the research gaps, the conceptual framework and the operationalization of the study variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The third chapter details the methodological approach that was adhered to in attempting to solve the problem statement. The chapter focused on the philosophy, research design, the population and sampling design. Further, the data collection instruments, procedures and research quality are presented. Lastly, the study presented the analysis and presentation section as well as ethical considerations that were followed in this research.

3.2 Research Philosophy

A research philosophy refers to a belief on how the data about the study in question should be collected, analysed and utilized (Ragab & Arisha, 2018) The study adopted a positivism research paradigm in that quantitative data was collected and analysed. This study used a quantitative approach that is supported by a positivism research philosophy. This philosophy was utilized in trying to establish the effect of quality management practices on the organizational performance of Coffee Co-operative Societies in Kiambu County.

3.2.1 Research Design

The research design is an approach a researcher utilizes to combine diverse aspects of the study in a logical and well-thought way to ensure the study achieves the objective of addressing a research problem in a well-advocated manner (Sileyew, 2019). This research adopted a descriptive design in solving the study problem. Descriptive research design is the process in which data is collected to test hypotheses or to answer questions concerning the current status of the subject under study (Tobi & Kampen, 2018). This research design was adopted since it helps to explore how variables in this study are related to each other as they addressed the main problem of the study. Further, it supported the adoption of quantitative measures in determining relationship between variables.

3.3 Target Population

Rahi (2017) defines population as the total collection of elements about which one wants to make inferences. Additionally, the authors divulge that all members or subjects that exhibit similar characteristics make up a population. The study population comprised of the registered Coffee Co-operatives in Kiambu County. Kiambu County is among the 32 coffee growing counties and leads in coffee production and earnings according to the Coffee Board of Kenya 2019/2020 statistics. According to the Kiambu County Government there are 23 Coffee Co-

operative Societies where members are governed under the Kiambu County Coffee Growers Association (KCCGA) (Kiambu County Government , 2021). The study targeted the Chairperson and Operations Managers of each of the Co-operative Societies in responding to the survey questions. The selection of the operations manager and chairpersons was informed by their role at operational level which may be key to this study as they are in a position to understand how QMP have been implemented in the coffee co-operatives and any influence it has on the performance. The population of the study was 46 officials.

3.4 Sampling Design and Sample Size

Sampling is the process of selecting a subgroup of characters from an entire whole population from which the study intends to cover, to act in the capacity of exemplifying the whole population (Kothari, 2017). A sampling frame as defined in statistics is the source from where a sample is chosen. It lists all the participants that can be sampled and these can be in form of individuals, institutions or households (Rahi, 2017). The sample frame for the study was drawn from all the 23 Coffee Co-operative Societies governed under the Kiambu County Coffee Growers Association. The sample of the study comprised of all the 46 Chairpersons and Operation Managers of the Coffee Co-operatives within Kiambu County. The research conducted a census of all the Co-operatives within the County.

3.5 Data Collection Instruments

The research adopted quantitative research data that was collected from primary sources of data. Kothari (2017) indicates that primary data is made up of first-hand information that has not been processed or analysed. Rahi (2017) points out that a questionnaire is a cheap tool for data collection yet very effective in collecting information from a large population. Further the data would not be biased as the questionnaire guarantees anonymity. The research developed the research questionnaire based on the measurement and conceptualization of the study variables. The questionnaire for the study was adapted. The first section contained a profile of the Coffee Co-operative Societies, the second section had Likert scale statements on the total quality management practices and the third section contained statements on the dependent variable of the survey.

3.6 Data Collection Procedures

The questionnaires were self-administered to respondents (Rahi, 2017). Kothari (2017) states that questionnaires are cost effective, minimize interviewer bias, promoting accuracy and high levels of reporting during data collection. To avoid bias, the questionnaires were elaborate

instructions, that are uniform, and there is room to seek clarification. Further, the study used drop and pick method in the data collection owing to the small sample for the study. This was key to ensure the researcher is able to personally oversee the data collection process.

3.7 Research Quality

Kothari (2017) recommends 10-30% of the sample respondents is adequate for a pilot study. The objective of the test for this study was to test on the flow of the questions with the aim of comprehensively testing various aspects including data collection instruments, methodology and field logistics. The research used the data collected from the pilot test to review the reliability of the research instrument and validity of the instrument.

3.7.1 Reliability Test

Reliability is the consistency of a set of measurement items (Kothari, 2017). Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of measurement (Saunders & Lewis, 2012). A measure is considered reliable if a person's score on the same test given twice is similar. The reliability test was conducted using the Cronbach Alpha.

Table 3.1 Reliability Test Results

Variable	Cronbach's Alpha	Decision Rule
Leadership management	.811	Accepted
Quality focus	.798	Accepted
Process management	.740	Accepted
Performance of Co-Ops	.820	Accepted

3.7.2 Validity Test

The validity tests were assessed using both content and construct validity of the study instrument. Content validity is the extent to which the items used to represent a construct give a representative sample of the construct population. Since there is no measure to determine content validity, the experts in the field of study often determine the content validity of the study. Face and content validity for the current research was determined by the researcher's supervisors (Saunders & Lewis, 2012).

3.8 Data Analysis and Presentation

Before the data can be analysed, the researcher ensured the data is checked for completeness, followed by data editing, data coding, data entry, and data cleaning. Inferential and descriptive statistics was employed for analysis of quantitative data with the assistance of Statistical Package for Social Sciences. The descriptive analysis comprised of frequencies, percentages, mean and standard deviation to summarize the responses obtained from the Likert scale statements that was developed for each study variable. The inferential analysis adopted the use of Pearson Correlation and multiple linear regression analysis to determine the association and magnitude of the relationship between the study variables respectively. The analysed research data was presented using bar graphs, charts and tables as deemed necessary. The research estimated the following multiple linear regression to determine the effect of QMP (leadership management, quality focus and process management) on the performance of the coffee co-operatives in Kiambu County.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y = Dependent Variable (performance of coffee co-operatives)

Independent variables, which include:

X₁ is leadership management

X₂ is quality focus

X₃ is process management

α = the constant

β₁₋₃ = the regression coefficient or change included in Y by each X

ε = error term

The study conducted the following diagnostic tests before conducting the regression analysis; normality tests, collinearity test and autocorrelation in the model.

3.9 Ethical Considerations

The study observed various ethical guidelines to ensure it is in line with academic requirements. The research ensured the anonymity of the study respondents is upheld within the course of the research. The survey upheld confidentiality of the participants and ensured that research data collected is only used for academic purposes. The study obtained the ethical approval from the Strathmore University Ethics Review Committee. The researcher applied for a research license from the National Commission for Science Technology and Innovation.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter details the analysis approaches applied on the collected data and presents the results based on the structure of the research instrument. The first section presents the background information, results on performance of the coffee co-operatives and the analysis of individual objectives and the regression summary. Lastly a summary of the study is presented.

4.2 Background Information

The background section previewed the findings on the response rate and the demographic profile of the coffee co-operatives included in the survey.

4.2.1 Response Rate

The focus of the study was on the 23 coffee co-operatives operating within Kiambu County with both the Chairperson and Operations Managers of each co-operative sample in the research. The survey was able to obtain 91% (n=42) responses with 9% (n=4) of the participants not able to respond within the study period. This rate of response was suitable for application in the quantitative analysis as it can provide the basis for making inferences on the sample of the research.

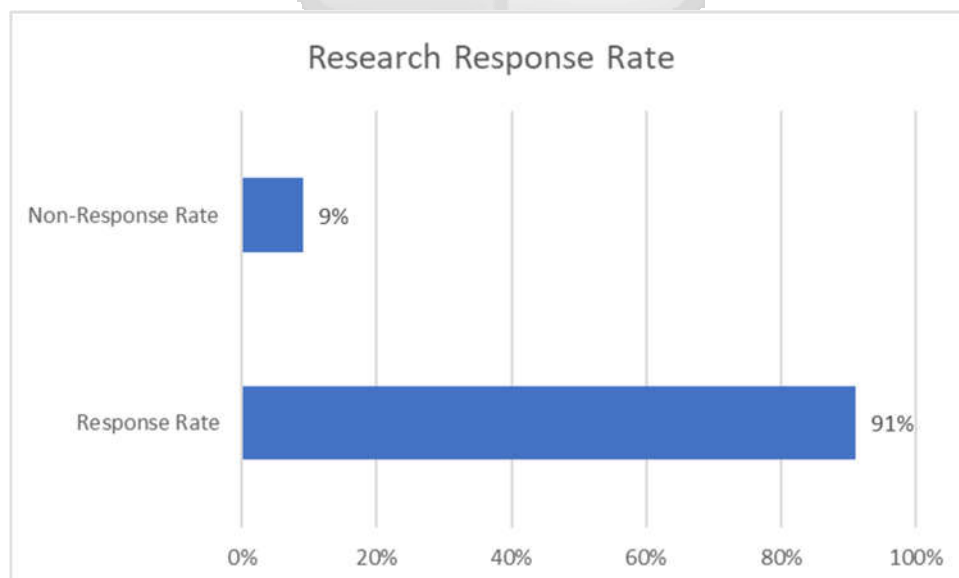


Figure 4.1 Response Rate

Source: Research Data (2022)

4.2.2 Length of time Coffee Co-operatives have been in Operation

The respondents were asked how long the coffee co-operatives have been in existence and findings revealed that 88% had operated within the county for more than 12 years, 5% had operated for 8-11 years with only 7% operating for 4-7 years. The results signify that the co-operatives have a footprint in the coffee industry and an understanding of the performance of the industry in the county.

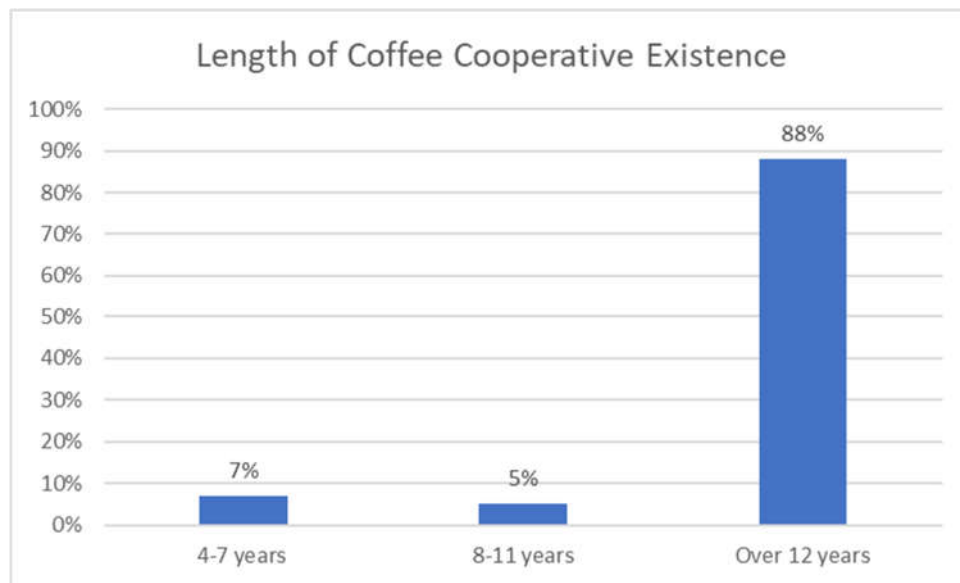


Figure 4.2 Length of Coffee Co-operative Existence

Source: Research Data (2022)

4.2.3 Number of Members and Revenue Generated by Coffee Co-operatives

The managers of the coffee co-operatives were asked to indicate the number of members they have and their annual revenue generated and the analysis is shown in Table 4.1 below.

Table 4.1 Number of Members and Annual Revenue Generated

	Frequency	Percent
Over 151 members	42	100.0
	Frequency	Percent
Less than 1 million Kshs.	2	4.8
2-5 million Kshs.	13	31.0
6-10 million Kshs.	15	35.7
Over 11 million Kshs.	12	28.6
Total	42	100.0

Source: Research Data (2022)

Analysis pointed out that all the co-operatives had more than 151 members with at least 36% of the co-operatives drawing an annual revenue of Kshs 6-10 million, 31% between Kshs 2-5 million and only 29% amassed more than Kshs 11 million in annual revenues.

4.3 Performance of Coffee Co-operatives in Kiambu County

The study reviewed the performance of coffee co-operatives which was operationalized using; quantity of coffee produced, quality of coffee, bargaining power, value-added operations and member's economic participation. The analysis of the responses from the Likert questions are summarized in the table below.

Table 4.2 Performance of Coffee Co-operatives in Kiambu County

	N	Sum	Mean	Std. Deviation
The co-operative society has constantly seen an improvement in the quantity of production by our members	42	192.00	4.5714	.50087
The co-operative society has been able to achieve an improvement in the quality of coffee produced by our members	42	187.00	4.4524	.55005
The co-operative society can attain a higher bargaining power in the local and global coffee market	42	144.00	3.4286	1.30931
There is a notable improvement in the value-addition operations of our co-operative through better collaborations in the market	42	171.00	4.0714	.74549
The co-operative society has been able to improve the well-being and economic participation of our members	42	171.00	4.0714	.51290
The co-operative society is routinely engaged in community investments opportunities	42	164.00	3.9048	.61721

Source: Research Data (2022)

The co-operative managers strongly agreed there is constant improvement in the quantity of coffee production among their members with a mean of 4.5714. The managers strongly agreed that the co-operatives had achieved improvement in the quality of coffee produced by our members (mean = 4.4524) with moderate deviation (.55005). The results showed that the co-operative societies have been able to improve the well-being and economic participation of our

members (mean = 4.0714, dev = .5129). The managers agreed that the co-operatives are able to achieve better bargaining power in the local and global coffee market as shown by a mean of 3.4286 with high disparity in findings 1.3093.

4.3 Effect of Leadership Management on the Performance of Coffee Co-operative Societies

The first study objective reviewed how leadership management plays a role in the performance of the co-operatives. The leadership management indicators were; mission and vision, promoting creativity, supporting subordinate and professional development of staff. The findings are presented in the table below.

Table 4.3 Leadership Management of Coffee Co-operative Societies

	N	Sum	Mean	Std. Deviation
The co-operative leaders have instituted a clear and shared mission for the society	42	193.00	4.5952	.49680
The management of the co-operative has developed a clear vision for the society	42	194.00	4.6190	.49151
Co-operative leadership encourage employees to pursue creative solutions in their duties in the society	42	182.00	4.3333	.65020
The management of the co-operative society regularly involves the staff and members in decision making	42	158.00	3.7619	.87818
The management continuously supports the professional development of our team	42	181.00	4.3095	.56258
The leadership of the co-operative society partakes in training and seminars to expose members to emerging practices	42	196.00	4.6667	.47712

Source: Research Data (2022)

The managers strongly agreed (mean = 4.6667, dev = .47712) the co-operative societies participate in training and seminars to expose members to emerging practices. The findings noted strong agreement that the management of the co-operative societies had developed a clear vision for the society as indicated by mean of 4.619. The study indicated an agreement among managers that the co-operative societies regularly involve the staff and members in decision making with a mean of 3.7619.

4.3.1 Correlation between Leadership Management and Performance of Co-operatives

The study conducted Spearman rank correlation to determine the direction of the effect of leadership management on the performance of the coffee co-operatives and results are presented in Table 4.4.

Table 4.4 Correlation Leadership Management and Performance of Co-operatives

			Organizational Performance	Leadership Management
Spearman's rho	Organizational Performance	Correlation Coefficient	1.000	
		Sig. (2-tailed)		
		N	42	
	Leadership Management	Correlation Coefficient	.793**	1.000
		Sig. (2-tailed)	.000	.
		N	42	42

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

Source: Research Data (2022)

The above findings established there is a strong positive effect of leadership management on the organization performance of the coffee co-operatives in Kiambu County ($r = .793^{**}$, $sig = .000 < .05$).

4.4 Effect of Quality Focus on the Performance of Coffee Co-operative Societies

The study analysed how quality focus is adopted within the co-operatives and its effect on the performance. The quality focus dimensions in this study were; customer focus, operations management, improvement of management systems and market outreach. Analysis of the responses are shown below.

Table 4.5 Quality Focus of Coffee Co-operative Societies

	N	Sum	Mean	Std. Deviation
The co-operative ensures that our production process is modelled on the needs of our customer base	42	156.00	3.7143	1.21546
The co-operative regularly reviews our operational capacity for consistency with set goals	42	176.00	4.1905	.67130
The co-operative regularly reviews our management systems to ensure compliance with standard practices	42	183.00	4.3571	.65598
The co-operative ensures that when changes are being implemented, increasing customer value is the priority of the society	42	184.00	4.3810	.53885
The co-operative society has segmented our customers to identify their needs and address them	42	171.00	4.0714	.60052

The co-operative has leveraged on emerging market gaps to improve on our outreach and recruit more members into the society	42	179.00	4.2619	.66478
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Source: Research Data (2022)

The findings show a strong agreement among managers that the co-operatives ensure that when changes are being implemented, increasing customer value is the priority of the society (mean = 4.381, dev = .5388). Strong agreement was also recorded among managers (mean = 4.3571) and the co-operative regularly reviews our management systems to ensure compliance with standard practices. The managers agreed that the co-operative societies had segmented their customers to identify their needs and address them (mean = 4.0714, dev = .6005).

4.4.1 Correlation between Quality Focus and Performance of Co-operatives

The study conducted Spearman rank correlation to determine the direction of the effect of quality focus on the performance of the coffee co-operatives and results are presented in Table 4.6.

Table 4.6 Correlation between Quality Focus and Performance of Co-operatives

			Organizational Performance	Quality Focus
Spearman's rho	Organizational Performance	Correlation Coefficient	1.000	
		Sig. (2-tailed)		
		N	42	
	Quality Focus	Correlation Coefficient	.477**	1.000
		Sig. (2-tailed)	.001	.
		N	42	42

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

Source: Research Data (2022)

The above findings established there is a moderate positive effect of quality focus on the organization performance of the coffee co-operatives in Kiambu County ($r = .477^{**}$, $\text{sig} = .001 < .05$).

4.5 Effect of Process Management on the Performance of Coffee Co-operative Societies

The third variable reviewed the process management applied in the coffee co-operatives and this was operationalized in the study using; level of continuous control of processes, the

reporting process, application of knowledge skills as well as the monitoring of data quality in the co-operative. The analysis of the variable is shown in the table below;

Table 4.7 Process Management of Coffee Co-operative Societies

	N	Sum	Mean	Std. Deviation
The co-operative has maintained robust monitoring systems to identify failures in the production process	42	158.00	3.7619	.79048
The co-operative ensures that data collected in the monitoring of our operations are utilized to improve the quality of our produce	42	172.00	4.0952	.53235
The co-operative ensures continuous innovation is achieved in the internal production processes of our co-operatives	42	184.00	4.3810	.58236
The co-operative collaborates with external teams to enhance the knowledge and production skills of our members	42	190.00	4.5238	.50549
The co-operative ensures there is strict adherence to reporting guidelines which ensure any errors in production are rectified.	42	188.00	4.4762	.55163

Source: Research Data (2022)

The management of the co-operatives strongly agreed (mean = 4.5238, dev = .5054) the society collaborates with external teams to enhance the knowledge and production skills of our members. The results show a strong agreement that the co-operative ensures there is strict adherence to reporting guidelines which ensure any errors in production are rectified as noted by mean of 4.4762, dev = .5516. The management agreed that the society maintains a robust monitoring system to identify failures in the production process as identified by mean of 3.7619.

4.5.1 Correlation between Process Management and Performance of Co-operatives

The study conducted Spearman rank correlation to determine the direction of the effect of process management on the performance of the coffee co-operatives and results are presented in Table 4.8.

Table 4.8 Correlation between Process Management and Performance of Co-operatives

			Organizational Performance	Process Management
Spearman's rho	Organizational Performance	Correlation Coefficient	1.000	
		Sig. (2-tailed)	.	
		N	42	
	Process Management	Correlation Coefficient	.626**	1.000
		Sig. (2-tailed)	.000	.
		N	42	42

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

Source: Research Data (2022)

The above findings established there is a strong positive effect of process management on the organization performance of the coffee co-operatives in Kiambu County ($r = .626^{**}$, $\text{sig} = .000 < .05$).

4.6 Regression between Total Quality Management Practices and Performance of Coffee Co-operative Societies

The main objective of the study was to establish the magnitude of effect of total quality management on the performance of coffee co-operatives in Kiambu County. A multiple linear regression was found suitable for this research and the findings of the regression tests are presented in this section.

Table 4.9 Regression Summary

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.818 ^a	.668	.642	1.78859	2.284

a. Predictors: (Constant), Process Management, Quality Focus, Leadership Management

b. Dependent Variable: Organizational Performance

Source: Research Data (2022)

The coefficient of determination, R^2 was used in this study as a useful tool because it gives the proportion of the variance (fluctuation) of one variable that is predictable from the other variable. The above results showed a $R^2 = 0.668$ which means that total quality management

practices do predict 66.8% of the changes in the organizational performance of the coffee co-operatives operating in Kiambu County.

Table 4.10 ANOVA Summary

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	244.935	3	81.645	25.522	.000 ^b
	Residual	121.565	38	3.199		
	Total	366.500	41			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Process Management, Quality Focus, Leadership Management

Source: Research Data (2022)

The table shows that the variable has a P-value equal to 0.000, F-value 25.522, demonstrating that the model is statistically significant in explaining the change in the dependent variable, considering that the P-value is less than 0.05 at the 95% level of confidence. Thus, signifying there is a positive and significant effect of total quality management practices on the organizational performance of coffee co-operatives.

Table 4.11 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1 (Constant)	-6.543	3.594		-1.821	.077	
	Leadership Management	.775	.188	.593	4.116	.000
	Quality Focus	-.008	.126	-.008	-.062	.951
	Process Management	.512	.182	.323	2.821	.008

a. Dependent Variable: Organizational Performance

Source: Research Data (2022)

The above findings showed a negative y-intercept (-6.543) meaning that in the absence of the total quality management practices the dependent variable has a negative constant value. From the results above we can plot the regression model as shown below;

$$Y = -6.543 + 0.775X_1 - 0.008X_2 + 0.512X_3 + 3.594$$

From the study findings on the first variable, leadership management has a positive coefficient $\beta_1 = 0.775$ with a corresponding sig = $0.000 < .05$. This shows that leadership management has a significant effect on the organizational performance of the coffee co-operatives. The analysis further showed a positive coefficient of process management $\beta_3 = 0.512$ with a corresponding sig = $0.008 < .05$. This signifies process management has a significant effect on the organizational performance of the coffee co-operatives. Concerning the quality focus variable, the findings show a coefficient $\beta_2 = -0.008$ with a corresponding sig = $0.951 > 0.05$ which reveals there was no significant effect of quality focus on the performance of coffee co-operatives in Kiambu County.

4.7 Summary

The study was focussed on establishing whether total quality management practices adopted by coffee co-operatives influence their performance. A quantitative research approach was used in the research with population of the survey drawn from the 23 coffee co-operatives in Kiambu County. The unit of observation for the research was the chairpersons and operational managers drawn from the co-operatives. A census survey was adopted in the study and structured questionnaires used in the data collection. The study obtained a 91% response rate from the participants. Findings indicated that all the co-operatives had more than 151 members. Findings revealed that majority of the firms had over 6 million shillings in their annual revenue. The correlation tests revealed a positive effect of leadership management, quality focus and process management on performance of coffee co-operatives. Regression tests established that 66.8% of the changes in the organizational performance of the coffee co-operatives operating in Kiambu County are determined by the total quality management practices. The beta coefficient for the TQM practices revealed that only leadership management and process management had a significant effect on the performance of the coffee co-operatives operating in Kiambu County.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The fifth chapter of the study covered the discussion of the study variables in relation to previous literature as well as the conclusions informed by the findings. The chapter presented the recommendations drawn from the survey and the areas for further investigation.

5.2 Discussion

This study purposed to determine the effect of total quality management practices on the performance of Coffee Co-operative Societies in Kiambu County. The study targeted the co-operatives' administrators who indicated a healthy distribution in terms of income generated. 36% of the co-operatives earn between six and ten million shillings, 31% between two and five million shillings, while 29% amassed more than 11 million shillings. The respondents were in strong agreement that the members of the co-operatives realized a constant improvement in the quantity and quality of coffee produced with a 4.5714 and 4.4524 mean respectively. Additionally, there was an agreement that this had resulted in improved economic well-being and better bargaining power both in local and global markets among co-operatives' members.

The study used regression analysis to examine the effect of total quality management practices on the organizational performance of coffee co-operatives and the analysis showed a $R^2 = 0.668$, showing that total quality management predicted 66.8% of the changes in the organizational performance of the coffee co-operatives operating in Kiambu County. From the analysis, the researcher determined that total quality management practices have a significant positive effect on the performance of coffee co-operatives. Similar findings were reported in the study by Cha-um (2018), who found out that Thai co-operative sectors can build good management practices through total quality management. Mwaura (2019) also determined that total quality management has a positive impact on the performance of star rated hotels in Nairobi, while Odigie and Ekpudu (2021) found similar findings when investigating the performance of beverage firms.

Regarding the specific variables, the study sought after the effect of leadership management on the performance of coffee co-operatives, and the regression showed a strong positive effect, with the significance indicating $r = .793^{**}$, $\text{sig} = .000 < .05$. A similar observation was made on the analysis on the effect of process management which showed the value $r = .626^{**}$, $\text{sig} = .000 < .05$, showing that they have a strong and positive effect on organization performance.

Regarding quality focus, the analysis revealed a coefficient of $r = 0.477^{**}$, $\text{sig} = 0.001 < 0.05$, which showed that focus on quality factors had moderate positive effects on the performance of coffee co-operatives. These findings can be explained in Deming's Theory of Quality Management which asserts that organizations can realize improved performance if they adopt a host of customer-based and service-oriented practices that will lead to higher productivity and long-term competitive strength.

According to Deming's 1986 theory of Quality Management, effective management and commitment to quality is key to creating continuous improvement of organizational processes to produce high quality products. Deming identifies the manager's leadership qualities and commitment to quality focus and process improvement as the key drivers for organizational performance. It emphasizes clear communication of the organization's vision and mission, training, education and development of employees as the strategies that can improve employee performance and overall organizational outcomes. This study's findings conform to this theory's assertions by providing evidence that leadership management, quality focus and process management are management practices that have a significant positive effect on the performance of coffee co-operatives.

Deming's TQM is supported by the contingency theory which, in turn, shows that there is no singular best way to manage, and that managers have to be flexible and to adapt to different situations. Essentially, different leaders will realize different outcomes from the resources they utilize in their pursuit of organizational goals. The theory identifies several effective leadership styles that provide direction, implement plans and motivate people. This theory supports the findings as it proposes that management outcomes are contingent on the leader's quality and the organization's performance.

5.2.1 Effect of Leadership Management on Organization Performance

This study's first objective was to investigate the effect of leadership management on the organizational performance of coffee co-operatives. Analysis revealed that leadership management has a strong positive effect on the organizational performance of coffee co-operatives ($\beta_1 = 0.775$; $\text{sig} = 0.000 < 0.05$). The researcher observed that the co-operative societies participate in training and seminars to expose members to emerging practices. The management of the co-operatives have developed a clear vision for the organizations, and the management involves the staff and members in decision making.

Hejkrlik, Chaloupkova, and Sokolska (2021) made similar observations in their investigation into farmers' co-operatives in Ukraine, affirming that the leader's skills and style significantly influence the group's commitment to realizing organizational goals. The research determined that leaders play a key role in setting an organization's culture which determines how organizations set goals, meet them and co-operate within various teams. However, the study called for a more transformational leadership style since certain styles can lead to founder domination which can reduce members' commitment levels and impede the group's success.

Nwankwo, Olabisi, and Onwuchekwa (2017) determined that poor management competency and institutional practices contribute to the low performance being reported by Nigerian multipurpose co-operatives. The study called for increased capacity building and development of policies and guidelines that would direct the management changes and framework for internal control among institutions which handle members' assets and finances. Michira and Anyieni (2018) affirmed that the leader's management style is key to successful implementation of strategic plans which improves organizational performance. The research findings suggested that co-operative leaders should practice the transformational, transactional, democratic and laissez-faire leadership styles since they are more friendly and conducive when an organization needs to implement strategic plans.

These findings are not shared by Garissa, Mohamed, and Bett (2018) who reported reduced confidence and increased anxiety among managers who employ ethical leadership styles in Kenyan Saccos. The research showed that competent leaders are democratic and embraced transformational leadership styles, involving employees in the decision making and promoting creativity and innovation. A leadership policy was also recommended as a tool to direct how leaders can be held accountable if they are determined to have mismanaged the group's finances. Nwankwo et al. (2017) are assertive that strong leadership is key to uplifting Sacco performance in Nigeria where capacity building initiatives have strengthened co-operation and efficiency in running the organization. The study asserts that leaders should be visionary to develop, implement and execute clear goals and uplift the financial wellbeing of the members. Deming's TQM theory posits that leaders make key decisions regarding investment and subordinate development directly affects the performance outcomes of the organization.

5.2.2 Effect of Quality Focus on Organization Performance

The second objective was to investigate the effect of quality focus on the organizational performance of coffee co-operatives. Analysis revealed that although quality focus improves business performance, on its own, it does not significantly improve coffee co-operatives'

performance in Kiambu County. Findings showed that the co-operatives priority was on satisfying customer needs. The co-operatives regularly review management systems to ensure compliance with standard practices, and that the co-operative society has undertaken customer segmentation as strategies to identify and address customer needs, and these strategies had improved the firm's ability to satisfy customer demands.

These findings are in line with those reported by Widman (2021) whose study concluded that a focus on the customer and process efficiency were among the main strategies that had increased the resilience of co-operative saccos during the COVID pandemic. The research ascertained that provision of quality training and technology resources improved the firms' ability to meet customer and regulator expectations showing firms can rely on improving available human resources to increase resilience. Dwi and Dini (2021) whose study was based in India made similar observations in their research which showed the importance of sustained training and focus on meeting consumer expectations as a strategy for firms that seek to increase customer satisfaction. The study also determined that firms can use various financial and non-financial incentives to improve customer engagement and ensure sustained quality service delivery.

However, according to Agmas (2020), co-operatives that focus on quality financial management are more successful, arguing that quality financial management through integration of information systems has a significant impact on the effectiveness of mobilizing and investing members' funds. Accordingly, this study asserts that management have to focus on internal controls as strategies to facilitate sustained organizational performance. Further, in determining that quality focus has an insignificant positive effect on sacco performance, this study contradicted Menza and Rugami (2021), whose research findings showed a significant positive association between quality focus factors on sacco performance in Mombasa. The research also determined that the degree of employee involvement in decision making and the quality of relationships with suppliers significantly impacts the sacco's performance.

According to the findings in Mwebia's (2020) study, the performance of dairy co-operatives is highly dependent on the quality of employee training, the supplier relationships, managers' commitment to improvement determine the quality of farmers' produce and sacco's ability to expand into new markets. Wanjogu and Waithaka (2021) observed that although management commitment, customer focus, employee engagement and continuous improvement as TQM factors have significant effects on the performance of microfinance firms, the degree of

commitment to continuous improvement had the most significant effect on the performance as it directly impacts the sacco's ability to develop products that suit customer needs.

5.2.3 Effect of Process Management on Organization Performance

The third objective was to investigate the effect of process management on the organizational performance of coffee co-operatives. Analysis revealed that process management has a strong positive effect on the organizational performance of coffee co-operatives in Kiambu County. There was significant agreement that the co-operative societies had instituted integrated information management and exchange systems which had facilitated communication within the organization. The study also showed that the co-operative management ensured adherence to reporting guidelines, maintain robust monitoring systems for timely identification of system failures and collaborate with external teams to facilitate operational efficiency.

Accordingly, Franken and Cook (2013) are assertive that the processes that management select to align organizational resources with strategic goals has significant effects on the outcomes of their organizations. The study showed that the composition on the executive board of directors has significant effects on organizational performance, with smaller boards with presence of managers with foreign experience exhibiting better performance. The degree of diversity in the board did not influence sacco profitability but increased their flexibility and approach to investment. Rasit and Ibrahim (2018) studied management systems and determined that integrated management systems are effective at improving financial management, monitoring, documentation, and data control. The study asserted investing in ICTs would increase co-operatives' process and analysis control.

Kibui and Moronge (2014) focused on Harambee co-operative and reported that robust monitoring systems are key to effective sacco management. Management systems improved credit lending and automated risk control improved financial performance within co-operatives. The study by Musa, Rashid, and Rashid (2016) showed how co-operatives can utilize internally generated data to improve targeting and participation of employees in decision making and generating solutions for industry problems. The study showed continuous control is essential among sacco managements. The studies by Olang (2017) and Nzilani (2019) were focused on internal control and determined that conflict management and reporting processes significantly improve internal relationships and foster employee productivity.

Olang (2017) showed the importance of effective negotiation systems and third-party interventions as conflict management systems that facilitated sustained relationship management. Nzilani (2019), on the other hand determined that the conflict management system is key to determining an organizations effectiveness in addressing stakeholder expectations which stimulates desired performance outcomes. Kibui and Moronge (2014) showed that organizational processes credit policy formulation, client appraisal methods and new technologies improved loan tracking, which enabled the firm to detect overdue loans, mismanaged funds and suitable investment options thus guaranteeing sustained income to co-operative members.

5.3 Conclusions

In relation to the main objective, the study concluded that total quality management practices adopted within coffee co-operatives have a positive and significant relationship with the performance of the institutions. The results revealed that a combination of leadership management, quality focus and process management will significantly lead to better performance of the co-operatives within the county. The findings on the first objective support the conclusion that leadership management has a significant positive effect on the performance of coffee co-operatives. Through implementing a robust leadership structure that is focussed on involvement of the staff, improving their technical competencies and professional development and having a shared mission and vision are critical to the co-operative's performance. More so, leadership management can be entrenched in conducting creative problem solving within the co-operative which can significantly improve the performance levels.

The results further supported the conclusion that process management has a positive and significant influence on the performance of coffee co-operatives in the county. The study concludes that proper implementation of monitoring systems and continuous innovation will lead to better production efficiency and quality for the co-operatives. Further, better collaboration and compliance to guidelines can help the institutions achieve better performance outcomes. The analysis led to the conclusion that quality focus does not have a significant influence on the performance of coffee co-operatives. The results are an indication that the co-operatives may not have instituted clear measures to support better customer focus, improved management systems and market outreach which are central to quality focus of the institutions.

5.4 Limitations of the study

The examination was constrained to Total Quality Management practices employed in the co-operatives' industry. The study further constrained itself to coffee saccos operating in Kiambu County, Kenya. The study locked out other factors that may influence the Sacco's performance such as the composition of the Sacco's members, its ability to access funds and existing systems that may limit their ability to change their culture. However, these are macro factors and influence the performance of all saccos.

The study limited itself to data from 23 Coffee Co-operative Societies which are members of the Kiambu County Coffee Growers Association (KCCGA) (Kiambu County Government , 2021). This is a small population and its findings may be relevant to smaller niches. The study was also limited to using pre-determined questions which may have forced respondents to respond to questions without having a clear comprehension of what it entails. Further, the busy schedule of the saccos may limit the respondents' ability to produce well-thought-out answers, even understanding them. This may even reduce the number of respondents.

5.5 Recommendations

The study recognizes the importance of TQM adoption on the organizational performance of coffee co-operatives. The study recommends the management of coffee co-operatives to institute a TQM implementation division whose primary duty would be to streamline the process of TQM practices within the organizations. The study also recommends the management of coffee co-operatives to engage in interactive team training and development to improve the quality-of-service delivery and accomplishment of organizational goals such as quality monitoring and control. The study further recommends the coffee co-operatives to amplify the voices of their employees to harness their experience and increase their ability to facilitate systems' improvement. The study also recommends increased communication of the organizations' vision and mission to ensure all employees recognize the organization's long-term goals and how it plans to achieve them. The study recommends an addition of control variables such as government regulation.

The research recommends that co-operatives should improve investment in new modern technologies that will help farmers in improving their coffee productivity. Further, through introduction of new innovative farming systems the co-operatives can improve the quality of the crop which will be critical to better pricing within the global coffee market. The study

suggests that the co-operative management should streamline their monitoring systems to ensure farmers adhere to standardized farming practices which will ensure the co-operatives are able to sustain quality crop production.

The results showed that quality focus was not able to sustain better performance within the coffee co-operatives. Hence the study recommends the institutions should constantly review their production process to ensure they are able to maintain their quality standards. More so the co-operatives should seek consultancy services that will help in aligning their management systems to maintain compliance with quality standards which will improve the competitiveness of the local coffee industry in the county. The study recommends that the co-operatives should conduct regular market outreach programmes which will help in acquiring relevant customer information that can help in aggressively improving the quality of the cooperative output.

5.6 Areas of Further Research

The study was only focussed on three total quality management practices (Effect of Leadership management on Organisational Performance, Effect of Quality focus on Organisational Performance and Effect of Process Management on Organisation Performance) hence further studies can be undertaken examining how other practices not covered in the study affect the performance of the coffee co-operatives. The research also suggests that further research work can be considered focusing on other coffee co-operatives within the country to get more evidence on how to improve the performance of the industry. The study also suggests that research work should be considered to investigate how regulatory and macroeconomic factors have impacted the performance of the coffee industry in Kenya. This will help in understanding if the environmental factors are critical to the performance of the institutions.

REFERENCES

- Abba, M., Yahaya, L., & Suleiman, N. (2018). Explored and critique of contingency theory for management accounting research. *Journal of Accounting and Financial Management ISSN*, 4(5).
- Abbas, J., & Kumari, K. (2021). Examining the relationship between total quality management and knowledge management and their impact on organizational performance: A dimensional analysis. *Journal of Economic and Administrative Sciences*.
- Abdullahi, M. O., & Kinyua, G. (2018). Total Quality Management Practices and Performance of Garissa County Government, Kenya. *International Journal of Contemporary Aspects in Strategic Management*, (1), 253-267.
- Abeykoon, M. W., & De Alwis, C. (2015). The impact of total quality management practices on export performance of apparel exporters in Sri Lanka. *Kelaniya Journal of Human Resource Management*, Volume 10-Number 01.
- Agmas, F. W. (2020). Determinants of Business Cooperatives' Success in North Gondar Zone, Ethiopia. *Horn of Africa Journal of Business and Economics (HAJBE)*, 3(2), 13–28.
- Ahmed, Z., Gui, D. Q., & Liu, Y. (2022). Poverty reduction through water interventions: A review of approaches in sub-Saharan Africa and South Asia. *Irrigation and Drainage*.
- Ali, J. (2016). Performance of small and medium-sized food and agribusiness enterprises: evidence from Indian firms. *International Food and Agribusiness Management Review*, 19(1030-2017-2125), 53-64.
- Alosani, M., & Yusoff, R. (2018). Six Sigma and its impact on the organizational performance of Dubai Police. *European Journal of Business and Management*, 10(24), 24-30.
- Al-Surmi, A., Cao, G., & Duan, Y. (2020). The impact of aligning business, IT, and marketing strategies on firm performance. *Industrial marketing management*, 84, 39-49.
- Amin, M., Aldakhil, A. M., Wu, C., Rezaei, S., & Cobanoglu, C. (2017). The structural relationship between TQM, employee satisfaction and hotel performance. *International Journal of Contemporary Hospitality Management*, 29 (4), 1256-1278.
- Anggadini, S. D., Surtikanti, S., Saepudin, A., & Saleh, D. S. (2021). Business Performance and Implementation of Total Quality Management: A Case Study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(5), 1039-1046.
- Anh, N. H., & Bokelmann, W. (2019). Determinants of smallholders' market preferences: The case of sustainable certified coffee farmers in Vietnam. *Sustainability*, 11(1), 1-20.
- Anil, A. P., & Satish, K. (2019). TQM practices and its performance effects: An integrated model. *International Journal of Quality and Reliability Management*, 36(8), 1318-1344.
- Antunes, M. G., Mucharreira, P. R., Justino, M. D., & Quirós, J. T. (2018). Total quality management implementation in portuguese higher education institutions. *Multidisciplinary Digital Publishing Institute Proceedings*, 2(21), 1342.
- Antunes, M. G., Mucharreira, P. R., Justino, M. R., & Texeira-Quirós, J. (2021). Effects of Total Quality Management (TQM) dimensions on innovation—evidence from SMEs. *Sustainability*, 13(18), 10095.
- Aragie, E. (2018). Identifying opportunities for value chain development in the Kenyan coffee sector: A modelling approach. *Outlook on AGRICULTURE*, 47(2), 150-159.

- Assfaw, A. M. (2018). Evaluation of the Financial Growth and Performance of Tepi Coffee Producer Farmers Cooperatives Union, Sheka Zone, South West Ethiopia. *Global Journal of Management And Business Research.*, 16, 24-45.
- Baddini, J. P. (2016). Environmental profile of Brazilian green coffee. *International Journal of Life Cycle Assessment*, 3(2), 5-8.
- Barjolle, D., Quiñones-Ruiz, X., Bagal, M., & Comoé, H. (2017). The Role of the State for Geographical Indications of Coffee: Case Studies from Colombia and Kenya. *World Development*, 98, 105-119.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Berut, Z. J., Namusonge, G. S., & Nambuswa, E. M. (2018). Influence of Decision Synchronization on Performance of New Kenya Cooperative Creameries Limited. *International Journal of Social Sciences and Information Technology* , 4 (10) 500-511
- Bichanga, W., & Mwangi, J. K. (2014). Effects of Liberalization on Coffee Production in Kenya. . *European Journal of Business and Management*, 5 (3), 45-49.
- Brenes, E. R., Montoya, D., & Ciravegna, L. (2014). Differentiation strategies in emerging markets: The case of Latin American agribusinesses. . *Journal of Business Research*, 67(5), 847-855.
- Budotela, A. J. (2016). Assessing the Role of Total Quality Management on Foods and Beverages Companies in Dar es Salaam. *Doctoral dissertation, The Open University of Tanzania.*
- Caroline, K. K. (2020). Effect of Business Process Management Practices on Financial Performance Commercial Banks in Nairobi City County, Kenya. *Doctoral dissertation, Kenyatta University.*
- Chang'alwa, M. V., & Kimaku, P. (2022). Corporate Level Strategies and Performance of Coffee Sector in Nairobi Metropolitan, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 6(1).
- Chaudary, S., Zafar, S., & Salman, M. (2015). Does Total Quality Management still shine? Re examining the total quality management effect on financial performance. . *Total Quality Management and Business Excellence*, 26(7-8), 811-824.
- Chauhan, G., & Nema, G. (2017). Study of the Role of Total Quality Management in Productivity Enhancement in Indian Insurance Sector. *Pacifica Business Review International*, 9(11), 75-85.
- Cha-um, S. (2018). Building Good Management Practices in Thailand Cooperative Sectors through Total Quality Management (TQM). *Kasem Bundit Journal*, 19, 39-45.
- Chebigo, C., & Kariuki, P. (2018). Strategic firm level factors and performance of manufacturing firms in Kenya: A case of Unilever Kenya Ltd. *International Academic Journal of Human Resource and Business Administration*, 3(3), 243-262.
- Chelugot, J. K. (2016). Determinants of Choice of Finance by Coffee Farmers in Machakos County. . *Management and Leadership Studies (IJMLS)*, 123.
- Chen, C. K., Reyes, L., Dahlgard, J., & Dahlgard-Park, S. M. (2021). From quality control to TQM, service quality and service sciences: a 30-year review of TQM literature. *International Journal of Quality and Service Sciences.*

- Cho, J. H. (2017). An empirical study on top management's leadership in construction quality management activities and construction quality management performance. . *Journal of the Korean Society for Quality Management*, 45(3), 403-426.
- Conceição, P., Levine, S., Lipton, M., & Warren-Rodríguez, A. (2016). Toward a food secure future: Ensuring food security for sustainable human development in Sub-Saharan Africa. . *Food Policy*, 60, 1-9.
- Dhieu, J. J. (2019). Adoption Of Total Quality Management Practices And Performance Of Manufacturing Firms In Nyeri County, Kenya. *Doctoral Dissertation, Kenyatta University*.
- Duran, C., C'entinder, A., & Sahan, O. (2015). An analysis on the Relationship between Total Quality Management practices and knowledge management : The case of Eskisehir. . *Procedia-Social and Behaviour Science*, 109 , 65-77.
- Dwi, E. A., & Dini, Y. R. (2021). The Role of Human Resources Quality for Improving Cooperatives Performance in Indonesia . *Center for Economic Research, Indonesian Institute of Sciences*, 5 (113), 34-44.
- Eniola, A. A., Olorunleke, G. K., Akintimehin, O. O., Ojeka, J. D., & Oyetunji, B. (2019). The impact of organizational culture on total quality management in SMEs in Nigeria. *Heliyon*, 5(8), e02293.
- Farah, H. A., Munga, J., & Mbebe, J. (2018). Influence of competitive strategies on performance of commercial airlines in Kenya: A survey of the airline industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(1),.
- Farissi, A., Oumami, M. E., & Beidouri, Z. (2020). Moroccan Agro-Food Companies: Performance Evaluation through the Balanced Scorecard Method. *Int. J Sup. Chain. Mgt* , 9(3), 155.
- Franken, J. R., & Cook, M. L. (2013). Impact of Board structure and process on cooperative performance. *Agricultural & Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting*.
- Galavandi, H. (2016). Investigate the relationship between organizational change based on management factors with organizational performance based on BSC.
- Gezahegn, B. (2020). Quality Management Practice and Performance of Coffee Processing and Exporting Firms in Ethiopia. *Doctoral Dissertation, St. Mary's University*.
- Gichichi, S. M., Mukulu, E., & Odhiambo, R. (2019). Influence of Market Conditions and Performance of Coffee Smallholders' Micro and Small Agribusinesses in Murang'a County, Kenya. *Embu University*.
- Giller, K. E., Delaune, T., Silva, J. V., van Wijk, M., Hammond, J., Descheemaeker, K., . . . Andersson, J. A. (2021). Small farms and development in sub-Saharan Africa: Farming for food, for income or for lack of better options? *Food Security*, 13(6), 1431-1454.
- Glatzel, K., Alpert, E., Brittain, S., & Conway, G. (2014). *Agriculture for Impact. Small and Growing Entrepreneurship in African Agriculture*. London: 15 Princes Gardens: A Montpellier Panel Report. .
- Grabs, J., & Ponte, S. (2019). The evolution of power in the global coffee value chain and production network. . *Journal of Economic Geography*, 19(4), 803-828.

- Ha, N. T. (2020). Contribution of Supplier Relationship Management to Firm Performance. *VNU Journal of Science: Economics and Business*, 36 (5), 11-20.
- Hejkrlik, J., Chaloupkova, P., & Sokolska, T. (2021). The role of transformational leadership and leaders' skills for new agricultural cooperatives in post-soviet countries. *Annals of Public and Cooperative Economics*.
- Henkel, T., & Bourdeau, D. (2018). A field study: An examination of managers' situational leadership styles. *Journal of Diversity Management (JDM)*, 13(2), 7-14.
- Hussein, S. S., & Muchemi, A. (2019). Michael Porters five forces on performance of savings and credit cooperative societies in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(7), 14-35.
- ICO. (2016). Assessing the economic sustainability of coffee growing. *Doc ICC*, 117-6, 23.
- ICO. (2022). *Historical data on the global coffee trade*. Retrieved from International Coffee Organization : https://www.ico.org/new_historical.asp
- Imran, M., Hamid, S. N., & Aziz, A. (2018). The influence of TQM on export performance of SMEs: Empirical evidence from manufacturing sector in Pakistan using PLS-SEM. *Management Science Letters*, 8(5), 483-496.
- Indiya, G. D., Mise, J., Obura, J., & Ojera, P. (2021). Moderating effect of organization culture on the relationship between quality management system adoption and performance of public universities in Kenya. *African Journal of Business Management*, 15(2).
- International Coffee Organization . (2019). *International Coffee Council: 124th Session*. International Coffee Organization .
- Irungu, M. (2019). Firm Level Performance Factors Of Coffee Cooperative Societies In Kenya And The Mediating Role Of Entrepreneurial Orientation. *Doctoral dissertation*.
- Jaiswal, K., & Garg, M. (2019). Exploring Relationship Between Tqm and Software Productivity. *Ingeniería Solidaria*, 15(3), 1-29.
- Josephine, P. C. (2015). Contributions of Savings and Credit Cooperative Society on Improving Rural Livelihood in Makungu ward Iringa, Tanzania. . *European Academic Research Conference on Global Business*.
- Jumady, E. (2020). Implementation of Total Quality Management and Leadership on Islamic Banking Financial Performance. . *ATESTASI: Jurnal Ilmiah Akuntansi*, 3(2), 163-170.
- Kaluai, F. K., & Muathe, S. (2020). Project Management Practices and Performance of Women Economic Empowerment in Kiambu and Nairobi Counties, Kenya. *Business Management and Strategy*, 11(2), 22-42.
- Kamakia, J. G. (2016). Influence of credit utilization by smallholder farmers on coffee production: A case of Karithathi farmers' cooperative society in Kirinyaga county Kenya. *University of Nairobi*.
- Kamau, V., Ateka, J., Mbeche, R., & Kavoi, M. M. (2017). Assessment Of Technical Efficiency Of Smallholder Coffee Farming Enterprises In Muranga, Kenya. . *Journal of Agriculture, Science and Technology*, 18 (1) 1-20.
- Kanyua, J., Ithinji, G. K., Waluse, S., & Wairimu, R. (2015). Factors Influencing Profitability of Diversified Cash Crop Farming among Smallholder Farmers in Gatanga District, Kenya. . *Journal of Economics and Sustainable Development* , 6(3), 31-40.

- Kaplan, R. S., & Norton, D. P. (2005). The balanced scorecard: measures that drive performance. *Harvard business review*, 83(7), 172.
- Karuri, A. N. (2020). Adaptation of Small-Scale Tea and Coffee Farmers in Kenya to Climate Change. *African Handbook of Climate Change Adaptation*, 1-19.
- Katchova, A. L., & Enlow, S. J. (2013). Financial performance of publicly-traded agribusinesses. . *Agricultural Finance Review*.
- Keinan, A. S., & Karugu, J. (2018). Total quality management practices and performance of manufacturing firms in Kenya: Case of Bamburi Cement Limited. *International Academic Journal of Human Resource and Business Administration*, 3(1), 81-99.
- Kiambu County Government . (2021). *Kiambu County Coffee Growers Association*. Kiambu County Government .
- Kibui, N., & Moronge, M. (2014). Effects of credit risk management on financial performance of SACCOS: A case study of Harambee SACCO. *International Academic Journal of Information Sciences and Project Management*, 1 (3), 157-172.
- Kihiu, P. N. (2016). The Influence of Total Quality Management Practices on the Performance of Saccos in Kiambu Sub County, Kenya. *Doctoral dissertation, United States International University-Africa*.
- Kihoro, D. M., & Gathungu, G. K. (2020). Assessment of Production Cost Affecting Optimization of Coffee Yields in Chuka Sub-County, Tharaka Nithi County. *Journal of Agriculture and Veterinary Science (IOSR-JAVS)*, 13 (5), 27-33.
- Kilile, F., Munga, J., & Were, E. (2019). The Influence of Strategy Implementation on Organizational Performance of Public Sector Organizations in the Ministry of Tourism in Kenya. *International Journal of Business Management and Finance*, 2(1).
- Kiprono, M. G. (2019). Determinants of coffee export performance in Kenya. *Doctoral dissertation, University of Nairobi*.
- Kirugumi, J. N. (2015). Total Quality Management In Kenyan Coffee House Revenue Generation. *Thesis, Dedan Kimathi University of Technology*.
- Kisia, F. O., Okibo, B. W., & Wandera, R. M. (2014). Influence of Strategic Management Process on Trans-Nzoia Teachers Sacco Performance. *International Journal of Management Excellence*, 4, 503-507.
- Kothari, C. (2017). *Research methodology methods and techniques*. New Age International (P) Ltd.
- Kuguru, P. N. (2016). Effect Of Coffee Farmers Capacity On Performance Of Coffee Industry In Kenya. *European Journal of Business and Strategic Management*, 1(1), 39-50. .
- Kuma, T., Dereje, M., Hirvonen, K., & Minten, B. (2019). Cash crops and food security: Evidence from Ethiopian smallholder coffee producers. . *The Journal of Development Studies*, 55(6), 1267-1284.
- Kwamega, M., Li, D., & Abrokwah, E. (2019). Empirical analysis of integration practices among agribusiness firms: perspective from a developing economy. . *Business Process Management Journal*.
- Laux, C. M., Mosher, G. A., & Hurburgh, C. R. (2015). Application of quality management systems to grain handling: An inventory management case study. . *Applied engineering in agriculture*, 31(2), 313-321.

- Lemma, D. T., & Megersa, H. G. (2021). Impact of Climate Change on East African Coffee Production and Its Mitigation Strategies. *World Journal of Agricultural Sciences*, 17(2), 81-89.
- Maina, F. W., Mburu, J., & Egelyng, H. (2019). Producer valuation of Geographical Indications-related attributes of export crops in Kenya: A choice experiment analysis.
- Makinda, J. N., & Otieno, M. M. (2019). Application Of Total Quality Management Strategies On Performance Of Kenya Tea Development Authority Factories In Kisii County, Kenya. *International Journal of Novel Research in Education and Learning*, 6 (6), 53-76.
- Maletič, M., Maletič, D., & Gomišček, B. (2018). The role of contingency factors on the relationship between sustainability practices and organizational performance. *Journal of Cleaner Production*, 171, 423-433.
- McAdam, R., Miller, K., & McSorley, C. (2019). Towards a contingency theory perspective of quality management in enabling strategic alignment. *International Journal of Production Economics*, 207, 195-209.
- Mehralian, G., Nazari, J. A., Nooriparto, G., & Rasekh, H. R. (2017). TQM and organizational performance using the balanced scorecard approach. *International Journal of Productivity and Performance Management*.
- Menza, G. K., & Rugami, J. M. (2021). Total Quality Management Practices and Performance of Deposit Taking Savings and Credit Cooperatives in Mombasa County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 3(1), 65-77.
- Menza, G., & Rugami, J. (2021). Total Quality Management Practices and Performance of Deposit Taking Savings and Credit Cooperatives in Mombasa County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 3(1), 65-77.
- Mgeni, T. O. (2015). Impact of entrepreneurial leadership style on business performance of SMEs in Tanzania.
- Michira, W., & Anyieni, A. G. (2018). Effect of Leadership on Implementation of Strategic Plans in Savings and Credit Co-Operative Societies in Kenya: A Case of Mwalimu Sacco in Nairobi County. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 9(1), 30-43.
- Mohamed, S. M., & Bett, S. (2018). Leadership practices and performance of SACCOs in Garissa County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(4), 15-34.
- Mugwe, J. W. (2014). Factors Influencing Coffee Production by Small Scale Farmers: A Case of Tetu Constituency, Kenya. *University of Nairobi*.
- Murimi, M., Wadongo, B., & Olielo, T. (2021). Determinants of revenue management practices and their impacts on the financial performance of hotels in Kenya: a proposed theoretical framework. *Future Business Journal*, 7(1), 1-7.
- Musa, D., Rashid, A. R., & Rashid, R. (2016). The examination of multidimensional construct of members' participation and its correlation to the cooperatives' business performance. *Journal of Business and Hospitality Management*, 2(1), 83-90.

- Mutunga, C. K. (2013). Indicators of Quality Management Practices in State Corporations within the Agriculture Sector in Kenya. *Kenyatta University*.
- Mwaura, B. N. (2019). Influence of Total Quality Management practices on performance of hotels; case of star rated hotels in greater Nairobi region. *Doctoral dissertation, Strathmore University*.
- Mwebia, F. K. (2020). Determinants of Performance in Dairy Cooperative Societies in Kenya: A Case of Selected Cooperative Societies in Kiambu County. *Doctoral dissertation, KeMU*.
- Naidu, S., Singh, G., & Narayan, J. (2021). Revisiting the contingency theory: dissection of entrepreneurial orientation elements in retail franchisee performance. *International Journal of Emerging Markets*.
- Ngugi, E. N. (2020). Effects of inventory management systems on performance of manufacturing companies in Eldoret Town, Kenya. *Doctoral dissertation, Kisii University*.
- Nguyen, T. L., & Nagase, K. (2019). The influence of total quality management on customer satisfaction. *International journal of healthcare management*, 12(4), 277-285.
- Nwankwo, F., Olabisi, T. A., & Onwuchekwa, F. (2017). Effect of capacity building on organizational performance of multipurpose cooperative societies in Osun State of Nigeria. *International Journal of Arts and Humanities*, 6(2), 141-158.
- Nyaga, D. K., & Gakobo, J. (2017). Effect of quality management practices on organizational performance of savings and credit co-operatives in Kirinyaga County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(4), 306.
- Nyoro, J. K. (2019). Agriculture and rural growth in Kenya. *Tegemeo Institute*.
- Nyoro, J. K. (2019). Agriculture and rural growth in Kenya. . *Tegemeo Institute*.
- Odigie, S. O., & Ekpudu, J. E. (2021). Total quality management and organisational performance in the nigerian beverage firm. *Studia commercialia Bratislavensia*, 156.
- Ogeto, E. O., & Thiongâ, S. M. (2020). Strategic Procurement Practices and Organizational Performance in the Construction Industry in Kenya: A Case Study of Allied Plumber Ltd. *Journal of Strategic Management*, 4(3), 69-79.
- Okem, A. E., & Stanton, A. (2016). *Contextualising the Cooperative Movement in Africa. In Theoretical and Empirical Studies on Cooperatives (pp. 15-26)*. Springer, Cham.
- Olang, B. A. (2017). The influence of Conflict Management on Organizational Performance: a case of Stima Sacco Society Limited. *Doctoral dissertation, United States International University-Africa*.
- Otieno, E. A., Ogutu, M., Ndemo, B., & Pokhariyal, G. (2020). The Effect Of Enterprise Risk Management And Macro Environment On The Performance Of Kenyan Stateowned Corporations. *DBA Africa Management Review*, 10(3), 30-57.
- Pambreni, Y., Khatibi, A., Azam, S., & Tham, J. J. (2019). The influence of total quality management toward organization performance. *Management Science Letters*, 9(9), 1397-1406.
- Panuwatwanich, K., & Nguyen, T. T. (2017). Influence of total quality management on performance of Vietnamese construction firms. *Procedia Engineering*, 182, 548-555.

- Park, S. (2020). Size matters: Toward a Contingency Theory of diversity effects on performance. *Public Performance & Management Review*, 43(2), 278-303.
- Peralta, J. J., & Garza, B. L. (2018). Collaborative practices and transaction costs in the coffee sector in Mexico. *Revista mexicana de ciencias agrícolas*, 9(1), 237-244.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic management journal*, 14(3), 179-191.
- Pham, Y., Reardon-Smith, K., Mushtaq, S., & Cockfield, G. (2019). The impact of climate change and variability on coffee production: a systematic review. *Climatic Change*, 156(4), 609-630.
- Ragab, M. A., & Arisha, A. (2018). Research methodology in business: A starter's guide. *Management and Organizational Studies*, 5(1), 1-14.
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.
- Ramlawati, R., & Kusuma, A. H. (2018). Total Quality Management as the Key of the Company to Gain the Competitiveness, Performance Achievement and Consumer Satisfaction. *International Review of Management and Marketing*, 8(5), 60.
- Rasit, M. H., & Ibrahim, M. A. (2018). Factors Influencing AIS Capabiility and Performance of Malaysian Cooperatives: A Conceptual Framework. *International Journal of Accounting*, 3(7), 71-82.
- Ren, S., Xie, Y., Zhu, Y., & Warner, M. (2018). New generation employees' preferences towards leadership style in China. *Asia Pacific Business Review*, 24(4), 437-458.
- Ross, J. E. (2017). *Total quality management: Text, cases, and readings*. . Routledge.
- Rotich, K. .. (2021, October 11). *Kenya's coffee production falls for second year*. Retrieved from Business Daily: <https://www.businessdailyafrica.com/bd/markets/commodities/kenya-s-coffee-production-falls-r-second-year-3579186>>
- Rushdi, Z., El Kabbout, R., Koabaz, M., Skaiky, A., Zalghout, M., & Msheik, A. (2021). Implementing Total Quality management practices and Employee Performance: Sanita-Lebanon. *Technium Social Scientific Journal*, 24, 538.
- Sabari, E. M. (2020). Analysis of Strategies for Reviving Coffee Production in Cooperative Societies in Meru County Kenya. *Doctoral dissertation, KeMU*.
- Sader, S., Husti, I., & Daróczy, M. (2017). Total quality management in the context of Industry 4.0. *Engineering, Agriculture and Green Industry Innovation*.
- Saffar, N., & Obeidat, A. (2020). The effect of total quality management practices on employee performance: The moderating role of knowledge sharing. *Management Science Letters*, 10(1), 77-90.
- Sahu, S., & Rathod, A. (2022). Total Quality Manager (TQM) Factors Effects on Large Scale Industry. *International Journal of Research in Engineering and Science (IJRES)*, 10 (6), 254-258.
- Salado, A. (2018). Five most promising markets in coffee. *DNA Café Seminário Internacional 2018*.

- Santini, B., Pinheiro, G. M., Wakulicz, G. J., & de Lima, É. S. (2021). System of Continuous Improvement for a Cooperative Organization in Southern Brazil. *Research, Society and Development*, 10(5).
- Saunders, M. N., & Lewis, P. (2012). *Doing research in business & management: An essential guide to planning your project*. University of Surrey.
- Savov, R., Chebeň, J., Lančarič, D., & Serenčėš, R. (2017). Mbnqa approach in quality management supporting sustainable business performance in agribusiness. *Amfiteatru Economic*, 19(44), 10-27.
- Sequeira, A. B., & Andrawina, L. (2021). Superior Management Support and Coffee Introduction Technology on Operational Performance CCT Company. *International Journal of Innovation in Enterprise System*, 5(02), 100-108.
- Shafiq, M., Lasrado, F., & Hafeez, K. (2019). The effect of TQM on organisational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management and Business Excellence*, 30 (1-2), 31-52.
- Shumeta, Z., & D'Haese, M. (2018). Do Coffee farmers benefit in food security from participating in coffee cooperatives? Evidence from Southwest Ethiopia Coffee Cooperatives. *Food and nutrition bulletin*, 39(2), 266-280.
- Sileyew, K. J. (2019). *Research design and methodology*. . In Cyberspace. IntechOpen.
- Sotirelis, P., & Grigoroudis, E. (2021). Total quality management and innovation: Linkages and evidence from the agro-food industry. *Journal of the Knowledge Economy*, 12(4), 1553-1573.
- Supartha, W. G., & Saraswaty, A. N. (2020). The impact of entrepreneurial leadership on organizational performance a case of credit cooperatives in Bali Indonesia. *Journal of Engineering and Applied Sciences*, 14(1), 233-241.
- Sweis, R. J., Asma'a, S. I., Amayreh, I., & Al-Sayyed, N. (2019). The relationship Between Total Quality Management (TQM) implementation and organisation performance: evidence from the airlines companies in UAE. *International Journal of Information, Business and Management*, 11(1), 58.
- Tai, N. C. (2021). Effect of Knowledge Management on Performance of Coffee Factories in Kiambu County, Kenya. *Doctoral dissertation, United States International University-Africa*.
- Titus Jr, V. K., & Anderson, B. S. (2018). Firm structure and environment as contingencies to the corporate venture capital-parent firm value relationship. *Entrepreneurship Theory and Practice*, 42(3), 498-522.
- Tobi, H., & Kampen, J. K. (2018). Research design: the methodology for interdisciplinary research framework. *Quality & quantity*, 52(3), 1209-1225.
- Trkman, P. (2013). Increasing process orientation with business process management: Critical practices'. *International journal of information management*, 33(1), 48-60.
- Tsou, Y. H., Huang, Y. F., Liu, S. C., & Do, M. H. (2021). The Effects of Total Quality Management and Corporate Social Responsibility on Firm Performance: A Future Research Agenda. *The Journal of Asian Finance, Economics and Business*, 8(4), 277-287.

- Tyce, M. (2020). A 'private-sector success story'? Uncovering the role of politics and the state in Kenya's horticultural export sector. *The Journal of Development Studies*, 56(10), 1877-1893.
- Venancio, L. P., Filgueiras, R., Mantovani, E. C., do Amaral, C. H., da Cunha, F. F., dos Santos Silva, F. C., . . . Cavatte, P. C. (2020). Impact of drought associated with high temperatures on Coffea canephora plantations: a case study in Espírito Santo State, Brazil. *Scientific Reports*, 10(1), 1-21.
- Wade, M., & Hulland, J. (2004). The resource-based view and information systems research: Review, extension, and suggestions for future research. *MIS quarterly*, 107-142.
- Wamwati, P. N. (2016). Total quality management and performance of Imara sacco. *Doctoral dissertation, University of Nairobi*.
- Wanjogu, B. W., & Waithaka, P. (2021). Total Quality Management and Organizational Performance of Deposit Taking Micro Finance Institutions in Nyandarua County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 3(1), 12.
- Wanjogu, B. W., & Waithaka, P. (2021). Total Quality Management and Organizational Performance of Deposit Taking Micro Finance Institutions in Nyandarua County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 3(1), 12.
- Wedig, K., & Wiegratz, J. (2018). Neoliberalism and the revival of agricultural cooperatives: The case of the coffee sector in Uganda. *Journal of Agrarian Change*, 18(2), 348-369.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, 5(2), 171-180.
- Widman, C. (2021). Fostering Cooperative Resilience during the COVID-19 Pandemic: A case study on coffee cooperatives' operations during the 2020 COVID-19 pandemic. *Master's Thesis*.
- World Bank. (2022, September). *The World Bank*. Retrieved from [www.worldbank.org: https://www.worldbank.org/en/topic/agriculture/overview](https://www.worldbank.org/en/topic/agriculture/overview)
- Zakki, M. (2021). Total Quality Management: A Study of Processing the Quality of 99 Brand Coffee Product. *Journal of Islamic Economics Perspectives*, 3(1), 32-44.
- Zakki, M. (2021). Total Quality Management: A Study Of Processing The Quality Of 99 Brand Coffee Product. *Journal of Islamic Economics Perspectives*, 3(1), 32-44. .
- Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. *Management Culture and Corporate Social Responsibility*, 121.

APPENDICES

Appendix I: Research Questionnaire

Hello, as part of partial requirements for the award of my masters, I'm obliged to conduct a study that was key to improving the performance of the coffee sector in the country. I am currently undertaking a study to determine the *effect of quality management practices on the organizational performance of Coffee Co-operative Societies in Kiambu County*. I kindly request you to allow me to access staff within your firm to aid in the process of data collection.

Part A: Demographic Information

1. How long has your Coffee Co-operative Society been in operation within Kiambu County?

- Less than 3 years ()
4-7 years ()
8-11 years ()
Over 12 years ()

2. How many members are registered with your Coffee Co-operative Society within Kiambu County?

- 0-50 members ()
51- 100 members ()
101-150 members ()
Over 151 members ()

3. What is the annual revenue generated from the operations of your Coffee Co-operative Society within Kiambu County?

- Less than 1 million Kshs. ()
2-5 million Kshs. ()
6-10 million Kshs. ()
Over 11 million Kshs. ()

Part B: *Effect of Quality Management Practices on The Organizational Performance of Coffee Co-operative Societies In Kiambu County*

Kindly use the below scale to indicate your perception/level of agreement with the various statements in the tables below;

Please indicate in the table with a tick (✓) or across (×) with a scale of

5= strongly agree 4= Agree 3= Moderate Agree 2= Disagree 1= Strongly Disagree

No	Leadership Management	1	2	3	4	5
1)	The co-operative leaders have instituted a clear and shared mission for the society					
2)	The management of the co-operative has developed a clear vision for the society					
3)	Co-operative leadership encourage employees to pursue creative solutions in their duties in the society					
4)	The management of the co-operative society regularly involves the staff and members in decision making					
5)	The management continuously supports the professional development of our team					
6)	The leadership of the co-operative society partakes in training and seminars to expose members to emerging practices					

No	Quality focus	1	2	3	4	5
7)	The co-operative ensures that our production process is modelled on the needs of our customer base					
8)	The co-operative regularly reviews our operational capacity for consistency with set goals					
9)	The co-operative regularly reviews our management systems to ensure compliance with standard practices					
10)	The co-operative ensures that when changes are being implemented, increasing customer value is the priority of the society					
11)	The co-operative society has segmented our customers to identify their needs and address them					
12)	The co-operative has leveraged on emerging market gaps to improve on our outreach and recruit more members into the society					

No	Process management	1	2	3	4	5
13)	The co-operative has maintained robust monitoring systems to identify failures in the production process					
14)	The co-operative ensures that data collected in the monitoring of our operations are utilized to improve the quality of our produce					
15)	The co-operative ensures continuous innovation is achieved in the internal production processes of our co-operatives					

16)	The co-operative collaborates with external teams to enhance the knowledge and production skills of our members					
17)	The co-operative ensures there is strict adherence to reporting guidelines which ensure any errors in production are rectified.					

No	Organizational Performance	1	2	3	4	5
18)	The co-operative society has constantly seen an improvement in the quantity of production by our members					
19)	The co-operative society has been able to achieve an improvement in the quality of coffee produced by our members					
20)	The co-operative society can attain a higher bargaining power in the local and global coffee market					
21)	There is a notable improvement in the value-addition operations of our co-operative through better collaborations in the market					
22)	The co-operative society has been able to improve the well-being and economic participation of our members					
23)	The co-operative society is routinely engaged in community investments opportunities.					

Thank you for participating in the Survey.



Appendix II: Diagnostic Tests
Autocorrelation Results

Model	Std. Error of the Estimate	Durbin-Watson
1	1.78859	2.284

a. Predictors: (Constant), Process Management, Quality Focus, Leadership Management

b. Dependent Variable: Operational Performance

Collinearity Results

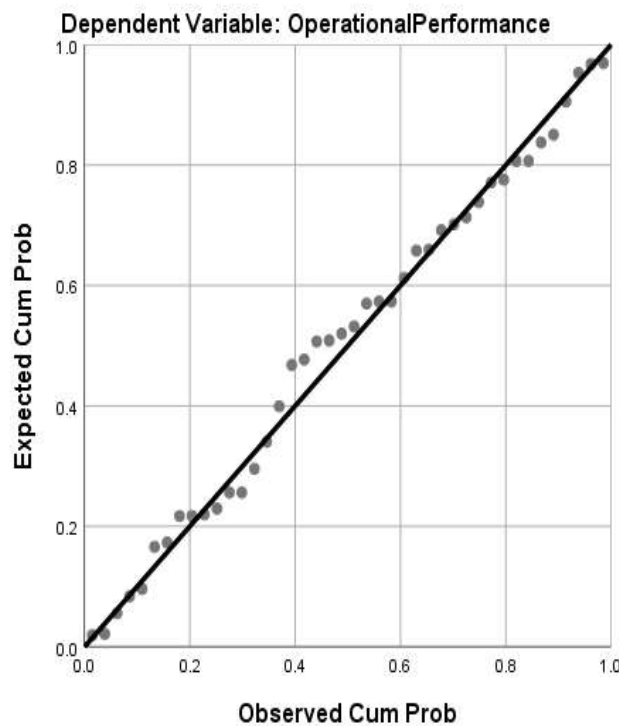
A		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Leadership Management	.421	2.375
	Quality Focus	.536	1.867
	Process Management	.666	1.501

a. Dependent Variable: Operational Performance



Normality Results

Normal P-P Plot of Regression Standardized Residual



Appendix III: Institutional Ethical Review Approval



Appendix IV: NACOSTI Research License

