CONTROL ENVIRONMENT AND FINANCIAL RISK MITIGATION EFFICIENCY OF SUPERMARKETS DURING COVID-19 IN NAIROBI CITY COUNTY, KENYA

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DECLARATION

I declare that this is my original work and has not been submitted for award of degree in this university or any other university.

Sign……………………………………. Date…………………………………

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This research work has been submitted for examination with my approval as the University supervisor.

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DEDICATION

This research work is dedicated to my wife for her never-ending inspiration towards this research work and her supportive. Her support towards this accomplishment is significantly valued**.**

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
CBK	Central Bank of Kenya
CCTV	Closed-Circuit Television
COSO	Committee of Sponsoring Organizations of the Treadway Commission
ERM	Enterprise Risk Management
NACOSTI	National Commission for Science, Technology and Innovation
RBT	Resource Based Theory
RETRACK	Retail Trade Association of Kenya
SPSS	Statistical Package for the Social Sciences
VFM	Value for Money
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Authorization of Transactions	In this study's context, authorization of transaction is the system upon which monetary exchange is either accepted or rejected by a relinquishing agent of the supermarket at differing levels of sales. In essence, it is the means in which transactionary relinquishing authorities of the supermarket do business at differing stages of sales.
Control Environment	This refers to policies and procedures and the actions that are taken by management in a business in this case supermarkets to address issues and the values that they espouse.
Financial Risk	This is the likelihood of any financial threat associated with supermarket business that could either increase or mar the growth of the business financial base. It will be measured on the basis of earnings volatility, and leverage levels.
Information Communication and Technology Integration	ICT integration refers to the process of making use of the available information and technology applications in the business entity (supermarket) with the aim of improving efficiency and effectiveness of business transactions.
Management Efficiency	It refers to the output created by the management team to maximize business profit goal through optimum utilization of resources vis a vis the expenses they direct and spend. In essence, it means minimization of cost and

maximization of business profit. Management of resources, administrative policies assessment and coordination of activities were the proxies.

Physical Controls This is the enactment of structural organizations/business security measures toward safe-guarding the integrity of business ventures from internal and external threat.

Supermarket This is defined as a sectional self-service retail arrangement where buyers/customers households' products are displayed.

Risk Mitigation Efficiency This is the strategy adopted by organizations in ensuring the best minimum cost is incurred during financial operations of the organization over a period of time.

ABSTRACT

Retail business ventures world over are well thought-out susceptible to various threats that needs to be tackled to shun impending financial fatalities/damages. As a result, it exposes the financial risk of retail businesses notably supermarket businesses in the UK recorded 40%, Netherland 35%, China 42% and America 29% respectively. Like any other type of business operating in Kenya, supermarkets face a myriad of financial and operating risks when carrying out their day to day operations. In the recent past, more than 17% of supermarkets in Nairobi and other areas in the country have been forced to close down. Among the factors that have contributed to the closure and poor survival rates in the supermarkets sector is the increasing financial and operational risks. Consequently, management duty's significance in guaranteeing adequacy and efficacy of laid down guidelines and act in moderating such threats cannot be overemphasized. In today's business environment with tight margins and fierce competition, management competence significantly determines whether or not **C2**a business entity going to be successful. Currently, this study sought to determine the influence of control environment on the financial risk mitigation efficiency among the supermarkets during COVID-19 in Nairobi County, Kenya. Particularly, it sought to institute the link amid ICT integration, management efficiency, physical controls of assets, authorization and approval of transactions and financial risk mitigation efficiency of supermarkets during COVID-19 in Kenya's Nairobi City County. Contingency Theory (CT), Technology acceptance theory, Cressey's Fraud Theory and Firm Value Maximization Theory serve as anchored theories. Descriptive research design was adopted by the study. Supermarkets as recognized by Kenya's RETAK comprised the study's target population. The study exclusively targeted branch managers/heads of the 66 supermarkets in Kenya's Nairobi City County. Cumulatively, the population of the study was made of 66 respondents selected through purposive sampling technique. Descriptive statistics involving frequencies, means and standard deviations were used. Inferential statistics used were correlation and regression analysis. Diagnostic test such as multicollinearity and normality model fit analysis of variance and coefficient parameters were employed to validate the regression model. The study found that information communication and technology integration is a statistically positive significant predictor of financial risk mitigation efficiency ($\beta_{1=}0.191$, $p<.05$). The study also found that management efficiency is a statistically positive significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.339$, $p<.05$). Further, the study found that physical control of assets is a statistically positive significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.123$, $p<.05$). Finally, the study further found that physical control of assets is a statistically positive significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.733$, $p<.05$). The study recommended that business organizations such as supermarkets should invest heavily in information technology integration into theory operations. Further, business organizations can enhance their financial risk mitigation by enhancing their managerial efficiency to minimize wastes and losses thus enhance the overall business efficiency.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Modern entrepreneurial realm is being described by rivalry and stiff competition where majority of business organizations are experiencing tough epoch staying afloat with realities; consequently, the adoption of management by institutions must take into account, expect and curtail the internal and external (new systems, regulatory variation, staff variation, natural disaster and economic situations) threats which hampers business objectives accomplishment (Sigler & Murphy, 2013). World-over, the retail trade segment is one of the foremost critical divisions that stimulate economic growth. Consequently, financial risk assessment of any trading entity is imperative for its stability, subsequently determinants to superior budgetary execution get to be indeed more critical (Njiru, 2016).

The retail business financial risk in the world has continued to widen thereby affecting the general performance of the business of the world. The rising financial risk has been attributed to new digital launch, new digital models of sales, business acquisition, or the transformation of fulfillment process (Deloitte, 2019). Many retail businesses (supermarkets) have continued to face precarious financial condition due to the cost of increasing market share arising from competitive battles on multiple fronts. According to Statistica (2021) financial risk rating, retail supermarket businesses in the UK recorded 40%, Netherland 35%, China 42% and America 29% respectively.

Retail business competition in Africa over time has continued to increase thereby giving rise to high financial risk. This has continued to expand retail market size in

Africa thereby giving room to capital accumulation. Thus, Statistica (2016) put the value of retail market for East Africa at 145 billion US dollar, Nigeria at 123 billion US dollar and South Africa at 133 billion US dollar respectively. The expanding retail market in Africa has been attributed to the growing population as well as other variables encouraging the growth of retail (supermarkets) businesses.

In Kenya, retail businesses (supermarkets) have continued to expand thereby encountering so many financial risks associated with it. However, according to the Kenya's Retail Report (2019), the retail sector feat retarded as rental yields average decreased by 1.6% point's year on year basis to 7.0%, from 8.6% in 2018, credited to the sturdy economic environment. Furthermore, the sector in 2020 has declined performance recorded on an average of 6.7%, which was 0.3% points less those in 2019 (Kenya's Retail Report, 2020). The downcast feat of supermarket is also attributed to the present inundated retail supermarkets thereby diverting attention to e-commerce resulting in decrease in the order for material retail areas, and hence constraining consumers' expenditure due to the extremely harsh budgetary situation (Muthusi, 2017). The decline was blamed on constricted reach of financial assets, proceeded retreat of some supermarkets, the likes of Shoprite owing to COVID-19 and compelling buying power amongst consumers and growing focus of e-commerce.

Control environment entails administration purposes and governance of approaches, consciousness not forgetting events of the particular charged with management and governance of business individuality control significance (Olumbe, 2016). He further asserted that, to avoid or rather manage this kind of behavior, organizations should consider hiring well trained and reputable accountants, supervise or rather closely monitor employees, and have some management personnel who have the knowledge ethical and unethical behavioral factors.

The most frequent motivation for fraud in businesses, according to Simkins and Fraser (2014), is money. The threat of losing one's job may push individuals to their breaking points and greatly overstep their ethical boundaries. Disconnection from one's mission and those it serves may also promote this behavior. To accomplish business objectives, however, management control measures for the corporate entity should be put in place (Yang & Guan, 2014). A vital component of board structure and the start of the free from any damages firm's operations is a plan of effective internal controls procedures. In any event, weak internal controls result in underwhelming initiatives, which always leads to bad luck (Olumbe, 2016).

1.1.1 Control Environment

These are policies and procedures and the actions that are taken by management in a business in this case supermarkets to address issues and the values that they espouse. Control environment encompasses organization structure, functions of the BOD, assignment of authority, management style and philosophy, commitment to compliance, communication & enforcement of integrity and HR Polices. Control environment is the wholesome principles, norms, tradition, standards, values and composition which could relate to organizational/business financial and non-financial arrangement put forward by top managerial systems in ensuring efficiency and effectiveness of the business enterprise toward optimization of the organizational objective through daily orderly observation of duties (Athanasoglou, Brissimis & Delis, 2016).

It is against this background that Rezaee (2002) alluded that internal control systems ensures business financial and non-financial achievement of targets through minimization or prevention of resource losses through supermarkets producing dependable financial reports and ensuring adherence of the regulations and laws of the set up. Control environment is core in ensuring the maintenance of internal control (Poletti- Hughes & Ozkan, 2014). This constitute different dimension such as transparency of staff given tasks of formulation, ethical values, administration and setting up, the directors, controls, committees for auditing and also structure of organization which depends heavily on the efficiency of the management and the CEO (Muthusi, 2017).

It mirrors the approach of principles and personnel thereby portraying the vitality of inner control in Supermarkets. In most cases, the laxity or tightened of control business environment affects the performance of supermarkets in the study area. The coordination of these ethical values displays business dealings, within and without the organization. Actions of the top management of these supermarkets affect the ethics, integrity and other aspects of the supermarkets control culture. ICT integration contributes to the minimization of risks in an organization (Andrabi, Kirmani & Wani, 2015: Kumsuprom, Corbitt & Pittayachawan, 2018). It portrays the culture of the supermarkets to the external environment thus, awakening personnel and non-personnel consciousness in achieving business objective of the supermarkets in the Nairobi County of Kenya.

ICT integration was assessed using adoption of IT based transactions of internal processes, risks on IT models (Online shopping) and automated machines. Management efficiency is a key component of control environment (Wright &

Stigliani, 2013). It refers to the output created by the management team to maximize business profit goal through optimum utilization of resources vis a vis the expenses they direct and spend. In essence, it means minimization of cost and maximization of business (supermarket) profit. The sufficiency and inadequacy of proper incentives for management triggers strong line of supervision and maintenance of high level of control consciousness within the supermarket chains (Muthusi, 2017). Management efficiency was measured using management competence, administrative policies assessment, coordination of activities and effective supervision.

Physical control is an integral aspect of control environment (Dan & Richard, 2013). Any financial progress or retrogression can be attributed to the implementation of control business environment policies which in most cases are executed by the directors and senior managers of business establishments (Seider & Dan, 2014). Physical control of assets was assessed based on human-Based access controls and regulations, adequacy alarms and CCTV systems controls and monitoring systems.

Authorization and approvals serve as check and balances I the control environment. As such, Rizaldi (2015) pointed out that proper control environment is a tool of operational effectiveness whereby the most essential ingredient in directing the organization as it mirrors policies and approaches of the management is the environment. Authorization and approvals was captured using segregation of duties assessment, level of staff discretion, staff rotation policies assessment and roles and duties duplication.

1.1.2 Financial Risk Mitigation

Financial risk is basically the hazard or likelihood that investors, shareholders, or other financial stakeholders will lose resources (Sigler & Murphy, 2013). According to Muhunyo & Jagongo., (2018) research work firms normally engage in continuous risk evaluation of operative business, with the aim of protecting itself from recognized risk factors and that, the objective of the firm risk supervision is to secure good performance, and to ensure the undisturbed continuation of business. Additionally, the study highlighted that, business risks are separated in strategic risks, financial risks, operational threats, data protection risks and insurance risks.

Simons, (2015) however suggested that, risk management should be part of the firm's planned and functional planning, on a daily basis decision-making process and internal control as risk management may help secure cost-effective feat of the firm and also ensure the continuity of the business by implementing threat executive in a cost-effective and efficient manner in the different functions of the company (Li, and Guisinger, 2011). Muhunyo and Jagongo (2018) found out that, the business risk that is inbuilt to businesses exposes them to injury or loss, the risk threaten the insight of the entity's goals and in more serious cases, the organization's ongoing existence.

They further assert that, the decrease in consumer expenses, intense competition, reputation risks, and failure of the supply chain, shopping online, lack of concurrence with legislation and also the laws, fraud & theft and unsatisfactory storage of the merchandise as major retail store risks in Kenya. The study focused on financial risks mitigation efficiency from the standpoint of earnings volatility, cash flow volatility, and leverage and liquidity levels. As suggested by Simons, (2015), in mitigation of fraud and theft risks, the role of the management is to ensure that the enterprise employs effective equipment for counting money & fake detectors, Controls transactions from the credit cards daily, come up with a policy that is clear on discounts for employees, and develops periodic reports, security personnel in their stores if there are high value stocks placed there and install CCTV camera, procures an insurance package against fire and theft and undertakes day to day stock taking on the cash registers then compares the total sales realized against the cash collected.

1.1.3 Control Environment and Financial Risk Mitigation Efficiency

Previous researches for instance; (Rizaldi, 2017; & Doyle, Ge, McVay, 2016) observed that, as long as proper control surroundings on institution are essential to the equipped effectiveness of the organization. Furthermore, Doyle *et al.*, (2016) found that one of the most significant factor in the running of a business is the management of its control environments since it is indicative of the effectiveness of the attitudes and competence of the management. They further established that, generally reins in the supervision of its financial operations are of critical importance since fraud and errors may occur and it is thus central to any financial institution to put in place strong safeguards which ensure that the fiduciary operations are sufficiently executed, which include keeping proper records and book keeping as well as filing and generating accurate and complete annual reports and returns.

Additionally, past studies by (Mawanda, 2018: & Rizaldi, 2017) affirmed that a robust and a well maintained internal control system will mitigate against operational and financial risks and may enhance a firms financial performance Mawanda, (2018) in their study sought to explore the effect of the business control systems on the financial performance in the audit processes. The study concluded that all the aspects of the internal control practice had a positive influence on the performance of the audit processes as well as the reporting of the internal audit. In addition, Rizaldi, (2017) found that the aggressiveness of the control mechanism needs to be better streamlined in order to ensure enhanced performance in the long run through proper management of financial risks.

Negus, (2010) argued that, inner control exercises are persuasive in achieving the associations set crucial destinations; thusly Value for Money (VFM). The prudent way to deal with VFM is through the association's acceptable command on the utilization of the assets in order to realize the set goals. On the other hand, Seider and Dan, (2014) identified related several risks characterizing a weak control environment which manifest in; lack of approved policies and procedures, absence of permitted procedures and policies, absence of the accountability of employees, fraud and ethical issues, lack of internal control design and oversight, lack of information about the relationships between reporting procedures, duplication of operations, management decisions that lack control and supervision, inadequate training of the employees and lack of competence to operate among the employees, breakdown of communication and internal controls, taking shortcuts, imposing unrealistic set targets of performance, absence of accountability among the employees and lack of conducive working environment promotes waste and fraud. Muhunyo and Jagongo, (2018) found out in their study that, organizations flourish when they establish control environments that further along the efficient execution of operations. They further argued that, when control environments is done properly, it can enable an organization to provide value to their customers and other stakeholders and also attain their set objectives and align the performance of the organization with the best practices in the industry, regulations, laws and the competencies to manage fraud and financial risks that they encounter.

1.1.4 Financial risk analysis of supermarkets in Nairobi City County

A supermarket or a retail store is a publicizing intercessor that bids to customers for their private consumption (Mageto, 2009). For the most part, Supermarkets make utility for purchasers, at the end of the day, the need-fulfilling limit and worth that an organization adds to products and administrations by partaking them more significant and accessible to clients. The Kenyan grocery store division comprise of different categorizations of neighborhood cuffs and the main part of general supplies is in Nairobi. General supplies in Kenya flourished from higher salary rural areas in vast city populations to white collar group and less fortunate customer markets.

Njenga, (2016) featured foundation of supermarkets that is all more obvious in relation to the way that the five major towns that is, Nakuru, Nairobi, Mombasa, Kisumu and Eldoret had in excess of 165 markets. By and by, Kenya has in extra of 300 hypermarkets disseminated the state over (Economic Survey, 2016). As per Mageto, (2009) the grocery stores area is classified into three levels. The study additionally expressed that, Uchumi, Nakumatt and Tuskys general stores have a place with the principal level since they have local capital chains speaking to 65% of the grocery store segment. Ukwala and Naivas binds have a place with the second level since have 28% of the immense plan stores in Kenya. What's more, ultimately, the third level comprises of small chain stores that are around 40 as well as the relatively smaller single general stores.

The central members in this segment in Nairobi are; Tuskys, and Naivas just as fresh unfamiliar participants like Game stores with South African sources and Choppies Enterprises from Botswana (Okibo *et al.,* 2014). The clashing clienteles preferences from the numerous products and brands and is in line with the buyer extra cash has guaranteed extensive development in the market. In supermarkets, transitory product needs to be separated appropriately in order to guarantee its marketability. Many items usually are adequate in fitting with the shopper's purchasing power. Cashiers operate transparently with cash and the amount to be paid by the merchant is figured out by the book keeper. Interior systems of control limit the clients or the representative's proneness to abuse or inadvertently take advantage of the capacity of the store to misquote the monetary recordings (Okibo *et al.,* 2014).

1.2 Statement of the Problem

Across the globe, the progress of business activities faces serious impacts from the situations such as the COVID-19 pandemic which led to the general fall or slowdown in economic productivity. Supermarket businesses all over the world received great shock in financial capacity due to the hit of covid-19 (Neuninger & Ruby, 2020). For firms, financial risk has become increasingly significant. Nothing seems to be stable in today‘s changeable climate except risk. Establishing a satisfactory risky context, detecting as well as assessing financial riskiness, minimizing risk exposures, evaluating risks, as well as establishing measures to safeguard firms from financial risks are all part of regulating financial risk. Kenya's authorities and corporate market have created a really favorable framework and have extensively engaged in enterprises such as supermarkets (Odipo, 2020).

This pandemic led to the closure of so many businesses including supermarkets, companies and other economic productive units of various economies of the world. As a result, it exposes the financial risk of retail businesses notably supermarket businesses in the UK recorded 40%, Netherland 35%, China 42% and America 29% respectively (Statistica, 2021). In Kenya, supermarkets are facing a myriad of financial and operational risks in the course of their day to day operations (Gitau, 2018). In addition, supermarkets in Nairobi have also encountered with the challenges related to financial and operational risks most especially during COVID-19 in their activities have been encountering the challenge of operational and financial risks which may have contributed to the collapse of most of the major players in the supermarket sector in Nairobi City County among many other regions in Kenya. For instance, recent cash crunch that forced Tuskys Supermarket to shut more branches throughout the Country with similar case for Nakumatt Supermarket, all attributed to financial risk (Grashuis, Skevas & Segovia, 2020).

The COVID-19 situation negatively impacts on the Kenya's shopping business as well as society overall. Leading to a downward trend in financial productivity and real wages, several merchants have faced some financial risk. Despite the continuous growth in supermarket chains in Kenya, the subsector still face mirage of financial risk challenges. Supermarkets function in a risky setting, putting themselves at risk of shortfalls if such concerns materialize. Risk mitigation is therefore critical, with the goal of guaranteeing certain risks are recognized and preventive actions are implemented.

Several studies have been conducted in an attempt to address the exposures of business financial risk in Kenya. For instance, Mwakimasinde *et al* (2014) established that Leverage and liquidity emerged as to have zero significant impact on the financial distress experienced by the corporates and hence the current study seeks to explore other variables which affect supermarkets financial risk as the other study focused on banks. Similarly, Mohamed (2017) found out that recording of inventory, stock taking, training on the management of inventory and e-procurement have a significantly positive impact on the financial performance and sustainability of a business organization. On the other hand, the present study analyzes financial risk against control environment of supermarkets.

Furthermore, Matayo and Muturi (2018) demonstrated that financial risk variables had a significant impact on the financial outcome of supermarket’s liquidity risk. While the present study had several similarities, the current study despite being similar, deviated on the basis that the current study focused on all supermarkets in Nairobi County of Kenya. Nonetheless, the studies conducted in an attempted to address financial risk of organization in Kenya had failed to incorporate physical control assets, authorization and approvals, ICT integration and management efficiency as variables that affect financial risk management of supermarkets in Nairobi City County, Kenya, also the studies did not address financial risk mitigation during the pandemic. Thus, depicting research gaps which the current study sought to address by establishing the effects of control environment on financial risk mitigation efficiency among supermarkets during COVID-19 in Nairobi City County of Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

To investigate the relationship between control environment and financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

1.3.2 Specific Objectives

i. To evaluate information communication and technology integration effect on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

ii. To examine management efficiency effect on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

iii. To examine physical control of assets effect on financial risk mitigation efficiency of supermarkets chains during COVID-19 in Nairobi City County, Kenya.

iv. To investigate how approval and authorization of transactions affect on the on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

1.4 Research Hypotheses

H_{o1}: Information communication and technology integration has insignificant influence on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

H_{o2}: Management efficiency has insignificant influence on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

H_{o3}: Physical control of assets has insignificant influence on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

H_{o4}: Authorization & Approval of transactions has insignificant influence on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya.

1.5 Significance of Study

The outcome of this work will be relevant to the following:

The findings of the proposed study on control environment and financial risk of Kenya's supermarket in Nairobi city County will aid firms in reducing risks associated with weak domestic control instruments as key mechanism for the maximization of shareholders wealth will be explore and thus, enhancing the creation and structuring of in-house control system by various firms. The outcomes of the study will also assist in extenuating financial threats resulting from inadequate internal control measures adopted by firms toward the success of supermarket value chains.

The authorities and management will greatly profit from the investigation. This will assist management in determining the amount of the risk given for by the operator as well as methods to improve the firm's processes in aspects of strategies to evaluate the appropriateness of the risk given for through management. The results will assist supermarket administrators in determining the efficiency or weakness of control environments linked to financial risks. When corporate financial risk administrators comprehend the impact of the control environment on financial risk, managers will be capable of developing guidelines and provide advice to help the store enhance its productivity.

The reason for future studies work on grounded hypotheses seeking answers to the connection between inner control environment and firm risks. More so, the work may likewise append to the body of knowledge on the link between the variables under investigation.

1.6 Limitations of the study

The study instruments received suboptimal response from some audience who felt it's not necessary to attain to the matter under investigation. As proof to support the argument of the study for scholarly purpose, the researcher provided evidence to convince the audience on the genuineness of the research purpose and hence, such responses were to be treated with utmost good faith. Having foreseen the likelihood of top administrative staff absence due to serious engagement, the researcher drew up a small sample representation to cushion the effect on the study outcomes.

1.7 Scope of the Study

Control environment and financial risk of Kenya's supermarkets chain in Nairobi county Kenya will be the focus of the study. ICT integration, Management efficiency, physical controls of assets and authorization and approval of transactions were the control environment activities which are peculiar to supermarkets chains retail businesses. 66 departmental chain stores (supermarkets) as recognized by Kenya's yellow pages directory comprised the study's target population. The study exclusively targeted branch accountants and managers/heads of the 66 supermarkets chains in Kenya's Nairobi County. The significant turn of supermarket events spurred the choice of 2015 to 2020 period for the study which was occasioned by their establishment in Nairobi Central District for the past 10 years.

1.8 Organization of the study

Five chapters form the organization of the work. First chapter is introduction, which comprised background, problem statement, objectives, hypotheses, relevance and scope. Second chapter presented review of literature which has control environment and financial threats of Nairobi County's supermarket chains, review of empirical studies, review of literature summary, gaps and conceptual presentation. Third chapter is research design, targeted population, study sample, data gathering and examination approach, diagnostic test and ethical considerations. Fourth chapter is the scrutiny, interpretation and presentation. Finally, the fifth chapter is summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

An elaborate review and the analysis of the theories related to the subject matter in the study will be presented in this section of the work. Theoretical grounds of the research problem will be provided to the reader. Summarily, conceptual framework, theoretical review, empirical review and the research gap will be considered in this chapter.

2.2 Theoretical Review

The theoretical foundations of the control environment and how it impacts on the financial risk of supermarkets chains were explored in this segment of the work. The foundation upon which the subject matter were discussed based on the theories on control environment and financial risk of supermarkets chains. Contingency Theory (CT), Cressey's Fraud Theory and Firm Value Maximization Theory are theories to be considered.

2.2.1 Contingency Theory

Contingency theory was advanced by Burns and Stalker in 1961. The theory established the link between organizational behavior and contingency factors including external environment, cultural impacts and technological aspects which affects the design and organizational functionality. The theory assumed that organizational structure's uniqueness do not cut across all organization as each has peculiar features. Relatively, information system, technology, the organizational size, environmental volatility and the characteristics of organizational structure determine the organizational effectiveness which in most cases serves as a fit or match with all these factors (Mintzberg, 1979). Depending on the situation at hand, organizational financial managers adopt situational approach in practical planning process, ICT integration decisions and internal control activities in management (Woodward, 1965). According to Mintzberg, (1979) the theory appended to management theory by hinging on managerial decision making which is hinged on the operational business environment. The quality of decision making in tackling situational unknown variables has helped organizational management (Woodward, 1965).

Despite the importance of this theory to managerial decision making process, contingency factors are still being debated upon and continuous suggestions therefore is hitherto difficult to ascertain the numbers of situational factors consequently, the embedding of symmetrical and non-monotonic assumptions in the theoretical arguments (Mintzberg, 1979). In support, Morgan (2007) poured out his vengeful intent pointing out that the integration of different schools of thoughts formed the basis for this situational approach to management decision process thus; actions are taken based on managerial situation of the organization. However, this theoretical framework finds application in the present study due to the fact that it provides the bases upon which supermarkets carry out decisions regarding physical controls in controlling the financial threats given the principles that guides the operations of the business in Nairobi County of Kenya.

2.2.2 Technology Acceptance Model

The model was created in 1986 by Fred Davis as an information system and shows how consumers acknowledge and adapt to technology. Bouziane and Elaasri (2019), argue that the model theorized on why users accepted or rejected information technology. The user behavioral intention to apply the technology based on its usefulness and the utilization of the technology. The usefulness perceived is the belief that the technology will increase performance while perceive use means that the use of the technology will be effortless to some extent. Perceived usefulness and perceived use are predictors of attitude and desire to use the technology. The technology acceptance model informs the present study since it provides knowledge on integration of technology within an organizational context. This model thus helps in comprehending how technology is employed in an organisation helps in prevention of financial risks.

2.2.3 Cressey's Fraud Theory

Cressey, (1953) figured a model, referred to as the fraud triangle in the modern literature. This theory argued that, people who are trusted may turn out to be violators of trust when money related matter as imagined by themselves is indivisible owing to the fact that the issue can be settled furtively by encroaching on the situation of monetary confinement that is applicable directly to them in the event of moralizations that allow them to vary their roots of clients of the endowed assets and properties.

The deterrent to preventing fraud as internal control measures focused on enhancing organizational performance via individuals. The model, also referred to as fraud triangle explains factors that engineers someone to enter into occupational fraud. In the model, three things lead to fraudulent behavior: perceived opportunity, rationalization and indivisibles perception. Wolfe and Hermanson, (2004) however highlighted that, on a very basic level, justification is a cognizant choice by the perpetrator to put their necessities over the requirements of others. The moral choice procedure varies by individual, culture, and experience. The examination completed in harmony through literature on misrepresentation in showing the circumstances identified with unethical behavior, crises, expanded requirements, inversions in the business condition, and an exclusive expectation of living are significant for infringement of trust (Cressey, 1953). Therefore, opportunity, legitimization and weight are the measurements which molded misrepresentation (Cressey, 1953).

Cressey (1953) theory relevance to the current study emanates from the idea that, fraud occurrence is engineered flanked by 3 perspectives: opportunity, rationalization and pressure, thereby relating to financial risk. Consequently, the management has a responsibility to institute proper authorizations and approvals procedures and mechanisms in place to safeguard against fraud hence clients and stakeholders who rely on them to put in policies and measures to detect and prevent fraud in supermarkets in Nairobi County in Kenya.

2.2.3 Theory of Firm Value Maximization

The theory of firm value maximization was propounded by Freeman (1984). According to the theory, capital market imperfections related to cash flow volatility can curb cost via hedge (Mayers & Smith, 1982). They further noted that, all firms should endeavor to maximize their total market value, and maximizing social welfare as a result. The present value of cost flows of firms profit over the future years measures the firm’s value (Modigliani & Miller, 1958).

Hedging has the tendency of reducing burden costs of financial distress, aggravated by tax incentives and increase the capacity of the firm to sustain higher debt levels through the generation of higher leverage (Mayer & Smith, 1982; Leland, 1998). However, this implied that corporate hedging appends value to firms’ face of progressive cost of tax and bankruptcy costs. An organizational sustaining choice would be impacted by tax composition (Mackay & Moeller, 2007). Whenever the duration of hedge cost is excessively enormous, firms who lessen the infidelity of its pre-charge worth furrow supporting would alternative to decline the normal assessment obligation and jerks in post-charge value of the firm. At the heart of theory of Modigliani-Miller is insignificance submission that the value of a company's budgetary choices has no effect.

Modigliani-Miller (1980) clarifies that for a markets that is functioning well (and impartial assessments) and sane, the market evaluation obligation of the firm's value depends on the payment stream established by the benefits conditions which is determine by speculators who can change the corporate money composition associated with positive or negative obligation measures. In view of the tenets of this theory, it remains imperative in explaining the necessities of managerial decision making process regarding profit maximization.

Due to the stiff competition that is prevailing in the free market of goods and capital, firms are forced to maximize their profit value in shareholders wealth than promoting own best utility maximization which in this case is safeguarding the entities assets. Therefore, the theory is relevant to the present study in that it provide the base for laid down procedures toward the maximization of supermarkets shareholders wealth in the midst of financial threat surrounding the business environment in Nairobi County in Kenya. This theory relates to management efficiency, in order to maximize firm value, financial risk is reduced through the efficiency of managers.

2.3 Empirical Literature

2.3.1 ICT Integration and Financial Risk

The influence of utilization of technology on the performance of retail business was investigated by Razali, Adnan and Rahman (2012) in Malaysia. The study conducted a case analysis using structured surveys, this study takes a subjective and quantitative study strategy. Result established that many of the retailers Malaysia make use of IT application gadgets in business transactions. Such gadgets as desktop, internet, Microsoft office, web browsers, document readers, emails and clock-in system. It was realized that majority of the businesses gain profit with the application of IT application in their business. Additionally, they recommended that, IT applications gives a significant impact to real estate growth in Malaysia. Despite the effort of the study in establishing the importance of information technology in retail businesses, this study's findings cannot be applicable to Nairobi County of Kenya due to its unique features.

The impact of ICT on effective financial management was examined by Andrabi *et al*. (2015) who observed that the use of information technology enhanced effectiveness, performance, reliability, efficiency among other features of contemporary day business functioning. Qualitative research design was utilized. More so, ICT jack up the quality and quantity of renovated financial composition. It was further established that the robustness of the financial systems employed by an organization with the optimization of the efficiency and financial performance in business transactions has been guaranteed through ICT classiness. Consequently, they recommended that, it is about time for corporations to facilitate their business transactions by putting up ICT maintenance facilities. ICT has advanced the manner operations are handled in every finance sector to ensure maximum efficiency. This is the moment to look further than blinds and guarantee that information communication equipment is properly installed as well as maintained. In view of the findings of the study, this study only considered ICT and financial management while the current study was at control environment and the financial and operational risks of supermarkets operating in Nairobi City County.

Patterson (2015) advanced his work information technology usage in risk management, data advancement proceeded the advance and give associations more and better capacities in distinguishing, gathering, sorting out, breaking down, and overseeing information in South Africa. The equivalent applies to hazard information. With time and venture, the development of hazard innovation will keep on helping drive further speculation and the coordination of center hazard and control forms across associations to permit chiefs to misuse chance logical functionalities, also. This current study focused on information technology in meddling financial threat ignoring the role of other control factors which this current study sought to establish in Nairobi County in Kenya.

The analysis of the risk management related to information technology among business organizations was carried out by Kumsuprom *et al*. (2018) in Thai, where the studies indicated that effective risk management using ICT focusing on the management and operational level activities was crucial in guaranteeing collaboration. Furthermore, the use of COBIT framework and ISO/IEC 17799 standard report of the organization was effective and efficient in putting risks under control. The study recognized the giant stride of the study, this study did not consider the uniqueness of other countries business features in the application of ICT in business and hence, difficulty of such findings application in Nairobi City County of Kenya.

Faris, Syed, and Mohammed (2019) look at the effect of utilization of information technology on the six Gulf Cooperation Council (GCC) nations' financial progress indices between 2000 through 2016. The findings are presented using 2 key ICT factors: permanent broadband as well as Online services as substitutes for ICT, and home loan to the business sectors as a proportion of Income as well as broad money supply/GDP as 2 substitutes for the finance progress indicator. Fixed effects assessments were utilized in this approach, as well as the findings reveal that a rise in fixed bandwidth has a quantitatively substantial and favorable impact on both financial progress indicators. The research's key recommendation is that Nations must make steps to create a comprehensive integrated data network to aid in the development of productive major industries. The study rested on financial success, the study will be rested on financial risk. The study used fixed effects evaluation method, this study used descriptive analysis instead.

2.3.2 Management Efficiency and Financial Risk Mitigation Efficiency

Financial distress condition effect on companies' performance in Malaysia was evaluated by Choy *et al.,* (2011). The study used an exploratory approach based on statistics from the Malaysian stock exchange, Bursa Saham. The findings suggest that share values are favorably affected by corporate profitability (ROE, EBIT/TA, EPS), effective business reorganization, including managerial turnover. The success of second crisis situation businesses, on the other hand, has an adverse impact on share market performances. The discovery showed that one of the causes of corporate failures or bankruptcy is due to the management, the characteristics that include, for example, inappropriate management skills and qualities, poor strategies implemented and corporate policy that might include inefficient governance structures. The study established the link between financial distress and firm's performance, the present study concentrated on superstores businesses in Nairobi City County in Kenya.

Wright and Stigliani (2013) research which reviewed literature on the association between entrepreneurship and growth highlighted that a management team that does not identify the internal determinants of failure and hold responsible external changes for decline of their business will not be able to react appropriately to environmental variations. Similarly, the perceived management reputation and the policies adopted by the management to run the company and to minimize bank financial distress will affect how signals of a firm distress will be handled. In view of the study's findings, the present study hinged more on supermarkets business, taking into account the control environment and financial threats associated with businesses in Nairobi City County in Kenya.

Poletti- Hughes and Ozkan (2014) explains that management efficiency level is reflected in the level of operating expenses, with a lower level of operating expenses being an indicator of higher level of management efficiency, and therefore higher profitability and value of the firm. Researchers demonstrate that economically challenged enterprises with managers are greater prone to be bankrupt versus broadly owned companies, with the likelihood of failure being higher if managers are community or banking entities, utilizing a dataset of 484 UK companies, 81 of which declared for financial crisis. Similarly, the level of employee motivation, extent of deterrence and detection of fraud, strength of the internal control systems, management culture, consistency and perception in the market are used as a measure. The study considered management efficiency levels in operating expenses which remains outside the scope of the present study as it considered control environment in the supermarkets to address financial risk in Nairobi County in Kenya.

Matayo and Muturi, (2018) studied the effect of financial and operational risk on financial performance of large scale supermarkets in Nairobi County. The researcher implemented a quantitative method and utilized a descriptive study methodology. The survey’s key demographic included 13 substantial stores registered with Nairobi’s district council. The study used selection as a population of Nairobi County’s full big stores. Secondary data used for the research were gathered via collecting information papers completed out by accounting professionals from several Nairobi District big stores. With the help of SPSS Version 23, the gathered Information was examined utilizing description and inferential analysis. Findings revealed market and operational risks had an appreciable effect on Kenya’s large supermarkets financial performance. Consequently they submitted that, the managers of large supermarkets should continually aim at minimizing the financial and operational risks through effective and efficient management of inventory, cutting down on idle capacity and employees as well as investing in the most current technologies which stimulate innovation across the management of the supermarkets. This includes interchange of electronic data and eventually the management of the financial and market risk to a low level. Despite the scope of the study on supermarkets in Kenya, the study only focused on big supermarkets whereas this current study focused on all categories of supermarkets in Nairobi, Kenya.

2.3.3 Physical Controls and Financial Risk Mitigation Efficiency

Physical controls basically allude to the use of locks, cameras, physical boundaries, among others to secure property (COSO, 1992). The institution likewise featured that; physical protections may perhaps forestall unapproved access to these benefits therefore; all advantages of an association ought to be defended consistently particularly the important and versatile resources, for example, money, supply or rather stock and motor vehicle. This looked at physical control of the business environment while the present study considered comprehensive environmental factors effects on supermarkets financial threats.

Dan and Richard (2013) concentrate on physical security: the feeble connection in inward control configuration set up that, while physical-get to boundaries help keeps guilty parties from accessing the ensured resources, the method of reasoning of alert frameworks is to distinguish a breech. Moreover, noticeable virtual cameras and redistribution signals that read possible assailants of the nearness of caution frameworks and checking may fill in as an impediment to assaults. Thus, it isn't just imperative to have working alert frameworks, yet to likewise tell the open that the environment is safe. They likewise discovered that, a vital segment of whichever physical control diagram is preparing and checking representatives to respond to dangers to the business security apparatus. They supplementary settled that, notwithstanding of whether the sum of the physical control systems are operational properly, it is believable so as to breeches are permissible by representatives who have not been accurately equipped or who are remiss in the presentation of safety techniques. The study focused on physical security of business environment without taking into account how this security affects supermarket's financial risk in Nairobi County, Kenya.

Seider and Dan (2014) work entitled, Sarbanes-Oxley data innovation consistence review of a redistributes SAP-Microsoft framework pro a forte maker featured that, security of benefits have to be intended to warrant the entrance to resources is restricted to approved people in order to ensure that no advantage is taken without prior notice. They advance presentation that, as the evaluation of the advantage and the threat of adversity builds, the advancement of the substantial entrance reins have to likewise increment. This can without much of a stretch be found in banks where gracefully storerooms might be made sure about with just bolts on door handles while huge reserves of money are made sure about in vaults with time locks. Ultimately they suggested that, locks ought to experience ordinary assessment and support. The study only considered Microsoft and SAP frameworks in businesses but the present study focused on control environment and supermarkets financial threats in Nairobi County, Kenya.

2.3.4 Authorization/Approval of Transactions and Financial Risks Mitigation

Generally, the extension and size of retail business bookkeeping exchanges restrict the proprietors from approving each action or item in the association driving them to recruit supervisors to accomplish the work. Conventionally, this exertion is basically done by someone who is various leveled prevalent (Ondieki *et al.*, 2015). The theory of agency bolster this set up as the specialists think about their interest before value proprietors.

As indicated by Ondieki, (2012) stock review reins, which prevailed in the research work, guarantee that all exchanges happening for the duration of the time have been approved and that they have all been effectively and precisely documented and prepared with respectability. The study concentrated on warehousing administration comparison with seventh day Adventist church in Kenya without considering supermarkets operations in relation to financial risk and control environment which this study intended to look at.

Mwakimasinde, Odhiambo and Byaruhanga (2014) study inspected the connection flanked by internal frameworks of the control environment as well as the presentation of budgets among the sugarcane producer organizations across Kenya. A descriptive Pearson correlation questionnaire survey was used in this investigation. All of the sugarcane famers businesses were investigated. Data was gathered from both secondary and primary data sources. The primary data was collected from the relevant respondents using questionnaires administered from across all 9 out grower enterprises in Kenya. Financial statements, articles, including content examination provided secondary data. The personal interview technique was utilized; therefore all finance managers as well as inner auditing directors from each out grower firm were chosen to participate in the study. All 9 sugarcane out grower institutes were given the survey tool. To obtain aggregate counts and proportions, the information was conducted with aid of SPSS data processing and analysis software edition 19.0. The outcomes set up a direct and critical impact of inner control framework on money related execution. It added that, inventory reviews are basic with respects genuine assessment of stocks held as opposed to documented. Therefore stock reviews in the sugarcane cultivator organizations in Kenya assumed the most persuasive job having a direct and critical effect on the execution of money related operations of sugarcane producers' organizations in Kenya. The study only consider internal control of sugarcane producers in Kenya whereas the present research focused on the environmental control of supermarkets as it related to its financial risk in Nairobi County in Kenya.

Wambua, Okibo, Nyang'au and Ondieki (2015) goal was to explore the effect of stocking storage methods on the level of profitability of the Seventh Day Adventist

Organization. The particular goal of this study was to see how stock storing mechanisms affected the financial success of Adventist Book Centers. In order to conduct this research, the researchers employed a descriptive methodological approach. At HHES, the targeted audience comprised 216 personnel, with a random sample of 30percent of the population of interest, or 64 workers. Since the demographic is varied, a stratified random sampling approach was used. The collected data were examined using regression and correlations in the statistical program for social science (SPSS). Quantitative results were then used to display the information. At the confidence threshold of 0.05, the statistical evidence demonstrated a strong substantial association among profitability and stock storage mechanisms. They also discovered that stock storage methods, featuring a beta value of 0.311, provided a considerable impact on productivity. According to the findings, ABC owners/managers use excellent stock storage facilities as a strategy to improve its profitability as well as the overall quality of the company. In their investigation, observed that there ought to be an arrangement of assessments confirming the documented things contrary to the physical inventory. The study was conducted on seventh day Adventist organization, but this study was conducted on supermarkets in Nairobi City County, Kenya.

Songhor, (2018) aim of the research was to see how debt financing affected finance struggles for Kenyan companies registered on the Nairobi Securities Exchange. The investigation adopted a descriptive survey methodology as the study approach, with secondary data gathering methodologies used to get information from all these companies' certified reported accounting records for the years 2013 to 2017. A number of respondents of 24 enterprises were received out of 37 non-financial businesses registered on the NSE. Altman's Z score was employed in establishing the companies' fiscal instability. The determination coefficient (R squared) score of the multiple regression analysis used was 58.7%, indicating that the strategy was capable to forecast the dependent parameter (finance difficulty) to a threshold of 58.7%. The study revealed that debt financing has the possibility of predicting financial distress to the tune of 58.7%. The null hypothesis was rejected on the basis of the F statistic obtained through the use of the ANOVA table which exceeded the critical value of F statistic. The study found out that there was a remarkable negative impact caused by the debt financing to the financial distress experienced by the firms. In addition, the financial leverage and financial distress exhibited a negative correlation while productivity, liquidity, utilization of assets and the solvency both of which correlated positively with the financial distress experienced by financial organizations. Despite the study in Nairobi, the study was only focused on debt financing and financial distress whereas the current study focused on environmental control of supermarkets in Nairobi County in Kenya.

2.4 Summary of reviewed Literature and Research Gap

In summary, majority of past scholars have tried to address the relationship which exists flanked by internal control activities systems and performance of various organizations for example; (Mwakimasinde *et al.,* 2014; Ngari, 2017; and Andrabi *et al.,* 2015) established a mixed findings were reported between the internal control environment and the firm's financial performance. To them, internal controls have a positive effect on organizational performance while others suggested negative effects on organizational performance. Other studies have also addressed the link flanked by management techniques and financial performance for example; (Ondieki *et al.,* 2015;

and Poletti- Hughes & Ozkan 2014) who argued that management technique recorded a remarkable impact on organizational performance. However, another study conducted by Matayo and Muturi (2018) establish a remarkable effect of the market and operational risks on performance of large scale supermarkets in Kenya. However, it is clear that most of the study carried on the subject matter have looked at financial performance of organization which establish a gap in the reviewed literature as there was no clear position in the direction of link flanked by environmental control and financial risk of supermarket in Nairobi County in Kenya and therefore this research tried to empirically cover the research gap by looking at the impacts of the control environment on financial risk of super markets in Nairobi County in Kenya.

Table 2.1: Summary of Literature Review and Research Gap

Researcher	Aim	Discoveries	Research Gap	Study Focus
Mwakimasinde, Odhiambo and Byaruhanga (2014)	Corporate financial distress among the non-financial companies listed at NSE	The findings of the study suggested that levelage and liquidity had minimal impact on the financial distress in the organizations when tested using a two tailed t-test at 95 percent confidence level.	The study did not observe key control environment variables	The focus of the current study is basically on financial risk expressed as a function of control environment for supermarket chain in Kenya.
Choy, Munusamy, Chelliah and Mandari (2011).	What is the impact offinancial distress on the financial performance of companies operating in Malaysia	The findings suggest that share values are favorably affected by corporate profitability (ROE, EBIT/TA, EPS), effective business reorganization, including managerial	The study was carried on companies in Malaysia.	This study will be carried out on supermarkets in Nairobi City County Kenya.

		turnover.		
Henage, T and Henage, D. (2013)	Investigated Physical Security: The Weak Link in Internal Control Design	The findings of the study demonstrated that most managers do not fully comprehead their role in putting in place effective security procedures in their organizations. Also, majority of the employees are unaware of the basic measures of security.	The study focused predominantly on physical security only while the current study focuses on finance risk based on control environment	The ongoing research focuses majorly on testing the reliability of control environment on financial risk
Wright and Stigliani (2013)	research reviewed literature on the association between entrepreneurship and growth	The association between entrepreneurship and growth highlighted that a management team that does not identify the internal determinants of failure and hold responsible external changes for decline of their business will not be able to react appropriately to environmental variations.	The study employed a qualitative approach	A quantitative methodology will be used in this study.
Poletti-Hughes and Ozkan (2014)	Investigated management efficiency on the level of operating expenses	Researchers demonstrate that economically challenged enterprises with managers are greater prone to be bankrupt versus broadly owned	The study considered management efficiency levels in operating expenses which remains outside the scope of the current study.	This study will consider management efficiency supermarkets control environment in the management of financial risk in

		companies, with the likelihood of failure being higher if managers are community or banking entities		Nairobi City County in Keny
Wambua et al.(2015)	Impact of stocking storage methods on the profitability of the Seventh Day Adventist Organization.	According to the findings, ABC owners/managers use excellent stock storage facilities as a strategy to improve its profitability as well as the overall quality of the company.	The study was conducted on seventh day Adventist organization.	This study will be conducted on supermarkets in Nairobi City county, Kenya
Mohamed, (2017)	The study sought to examine the relationship between inventory controls and the financial performance of the Garissa County Government	The findings of the study suggested that stock taking, recording of inventory, training on inventory management and e-procurement are positively correlated to the financial sustainability of an organization.	The proposed study focuses on testing the efficacy of management control environment activities against the inherent financial risk.	This study did not look at other control environment elements such as ICT integration and Authorization
Ngari, (2017)	The study sought to determine the impact of internal business controls on the financial and economic performance of the Micro Finance Institutions	The outcomes of the study indicated that the differentiation of duties, approval of transactions, vouching, internal audit and authoritization of transactions influence the financial performance of an organization	The study focused on financial performance while the current study focuses on financial risk	The current study focuses on financial risk with control environment being the determinant

	in Kenya	significantly.		
Matayo and Muturi, (2018)	The study sought to explore the impact of financial and operational risks on the financial and operational performance of the large scale supermarkets operating in the Nairobi County	The outcomes of the study suggested that each of the variables studied had an appreciable impact on the financial performance of the business organization and also impacted on the liquidity of the large scale supermarkets operating in Nairobi County	The study analyzed financial risk as an independent variable while the current study treated financial risk as a the dependent variable	The current study will concentrate on the impact of the effectiveness of the control environment in mitigating financial risk amongst supermarkets in Kenya
Songhor, (2018).	aim of the research was to see how debt financing affected finance struggles for Kenyan companies registered on the NSE	The study found that the debt financing has the possibility of predicting financial distress to the tune of 58.7%.	Despite the study in Nairobi, the study was only focused on debt financing and financial distress.	This current study will focus on environmental control of supermarkets in Nairobi City County in Kenya

Source: Author, (2022)

2.5 Conceptual Framework

The appreciation of the connection of any study could be done given the theoretical linkage between the various variables considered in the study. They provide avenue for the appreciation of the study phenomenon for effective interpretation to the general society. Therefore, the study unpacked control environment into; ICT integration, Management efficiency, physical controls of assets and authorization &

approval of transactions and attempted to establish the association it has with financial risk. The diagrammatical presentation of the study conceptual framework depicts the connection flanked by the research variables as is presented in Figure 2.1.

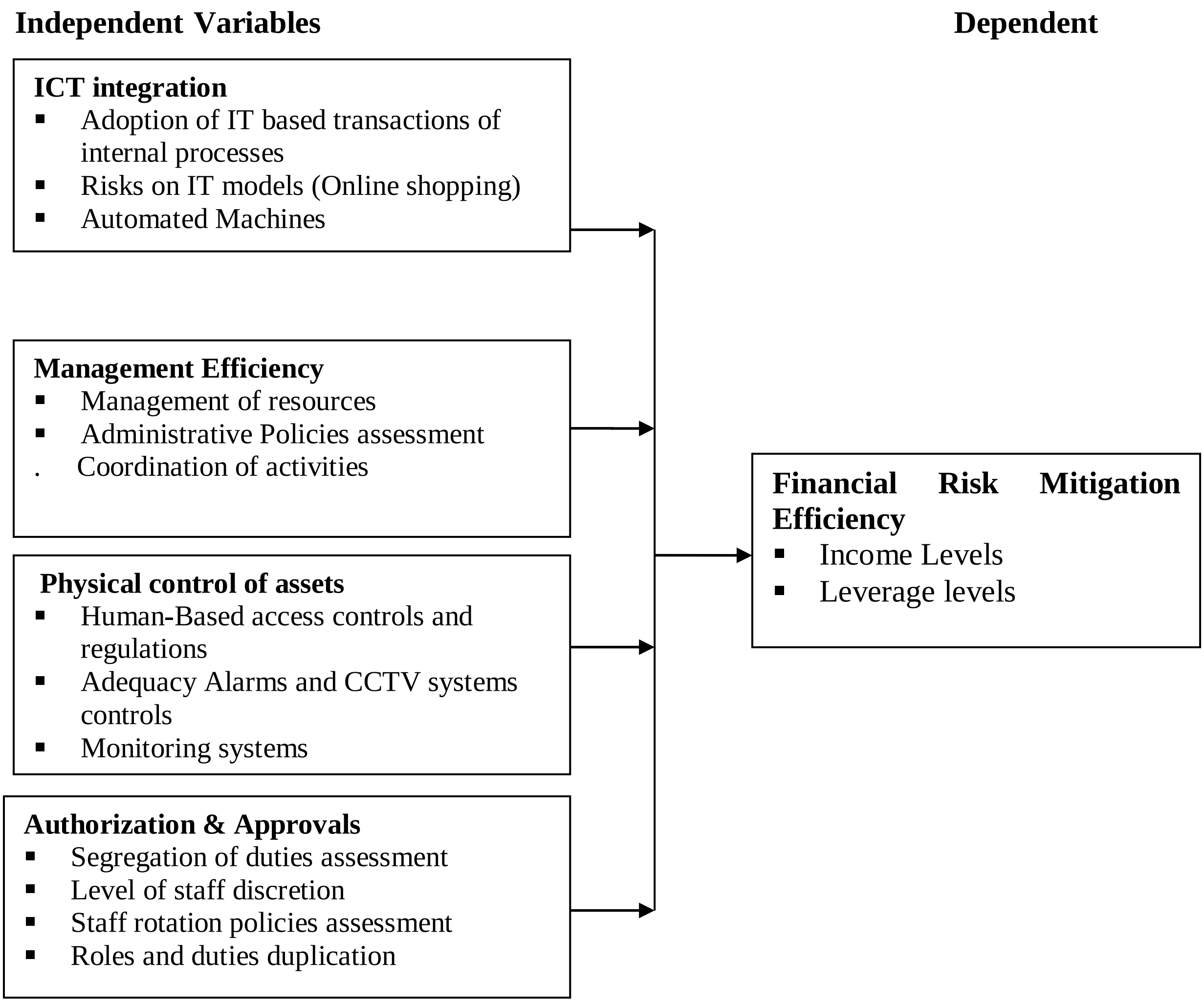

Figure 2.1:Conceptual Framework

Source: Researcher (2023)

Financial risk was measured by income levels, and leverage levels, thus, serving as the dependent variable. Control environment attributes denoted the independent variables of the study which were ICT integration, management efficiency, physical control of assets and authorization and approvals. ICT integration was assessed using adoption of IT based transactions of internal processes, risks on IT models (Online shopping) and automated machines.

Management efficiency was measured using management of resources, administrative policies assessment, and coordination of activities. Physical control of assets was assessed based on human-Based access controls and regulations, adequacy alarms and CCTV systems controls and monitoring systems. Authorization and approvals was captured using segregation of duties assessment, level of staff discretion, staff rotation policies assessment and roles and duties duplication.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focusses on the methodological procedures employed for the research study. It details the routine map that will be in use accurately, impartially, efficiently and validly proffer solutions to the questions that the study seeks to address. Therefore, this segment of the study describes the plan of the research, population target, and tools of data gathering, measures and data analysis.

3.2 Research Design

It entails the map out strategy in which a study objective can be attained; simply, it is the structural map out of plans in investigating a particular phenomenon for the purpose in which it is set out through the utilization of data instruments, measurement and evaluation (Mugenda & Mugenda, 2013). In order to adequately capture the nature of the relationship that exists between the effectiveness of the control environment and the financial risk experienced by the supermarkets in Nairobi County in Kenya, a descriptive research design will be adopted. Accordingly, descriptive statistics ascertain and features of the study variables (Cooper & Schindler, 2009). A descriptive research design is considered as a process of gathering the data in order to provide solutions to the stipulated research questions concerning the characteristics of the population under investigation (Mugenda & Mugenda, 2013).

Descriptive research design is considered most suitable for the proposed research in that, it accounts for quantitative approach coupled with non-experimental proportional design that indicates the track, extent, enormity and vigor of the association flanked by the study variables which were considered explanatory and dependent in nature (Mugenda & Mugenda, 2013). This research design was deemed appropriate because it gave an accurate description of the study variables.

3.3 Target Population

The population under investigation entails all the elements, items and persons of concern, possessing related features which a researcher wishes to induce from the findings (Mugenda & Mugenda, 2009; Mugenda & Mugenda, 2010). Cooper and Schindler (2010) asserted that a population so desired is that which possess descriptive similar features to be investigated. 66 departmental chain stores (supermarkets) comprised the study's target population. The study exclusively targeted branch managers/heads of the 66 supermarkets chains in Kenya's Nairobi City County.

Table 3.1: Target Population

Sections	Population	Percentage
Branch Managers/Heads	66	100
Total	**66**	**100**

Source: Researcher (2021)

In view of Table 3.1, the target population used in the study was made up of 66 respondents which was arrived at using census technique. However, the choice of Nairobi City County is adduced from researchers convenience and the high level of supermarket activities coupled with it customers base.

3.4 Sample Frame and Sample Size Determination

Sampling entail the method of determining the unit of analysis drawn out of the population in which the researcher intends to study. Cooper and Schnidler (2010) define sampling as course of action and modus operandi pursued by a researcher in choosing elements of the study sample of the population. For the purpose of the present study, 66 respondents was employed. However, these comprised the total population investigated due to its small and manageable size. Thus, Suresh, Thomas and Suresh (2011) stated that total population is opted in any research investigation where the entire population that shows a particular set of feature is determined.

The justification of using the entire population (managers) according to Mugenda and Mugenda (2010) makes it possible for analytical generalization to be made on the whole population under study. Therefore, the study will be based on purposive sampling. Purposive sampling is employed based on the researcher's judgment in line with certain characteristics of suitability (Cooper & Schindler, 2010). The choice of using the whole population (managers) is due to the inclusion criteria which align the features of all elements of the population to be investigated based on certain characteristics which is largely time scope of 2015 to 2020. Therefore, all 66 supermarkets chains in Nairobi County, Kenya were covered (See Appendix V: List of supermarkets).

Table 2.2: Distribution of Sample Size

Category	Population	Sample Size	Percent
Branch Managers/Heads	66	66	100
Total	**66**	**66**	**100**

Source: Researcher (2021)

Table 3.2 indicates the distribution of the sample which was purposely based on one respondent (branch manager/head) of each of the sixty-six supermarkets)

3.5 Data Collection Instrument

As defined by Mugenda and Mugenda (2010), instrument of data collection is a text that includes questions that are answered in a structured and highly detailed manner. The instrument for gathering data helps the evaluator to obtain standard data that can bemeasured, summed up and subjected to further statistical analysis. Structured questi onnaire would be the key instrument for primary data collection. The study instrument was structured in a closed ended Likert scaled format to measure the strength of the respondents' response about a particular item. A five point Likert scale questionnaire were employed because it utilizes items where the respondents' total score is high about the items and thus excluding those whose scores are low. In this case, the item with the highest score were assumed to have met the selection criteria for the final instrument for the study (Kothari, 2010).

3.5.1. Test for Validity

The magnitude to which study findings can be represented correctly and applied to cer tain populations is validity. It is the extent to which testing tools calculate that which is supposed to evaluated (Mugenda and Mugenda, 2010).

A pilot study was carried out to check for constancy and legality of the research tool.Validity would be improved by consulting the supervisor and experts as aided by Kothari, (2010), testing the instrumentitems on their content suitability, and in identifying all potential areas that require adjustment to achieve the study's objectives. The use of factor analysis was thus used to conduct validity analysis. This is an analytical method of reducing of the factors to ensure that only factors that have a significant impact on the relationships are included while those with a marginal impact are dropped. Thus, the use of factor analysis method aided in identification of the factors that correspond to significant factor loadings.

3.5.2 Reliability of the study

Reliability is the degree to which findings are unswerving over time. In addition, it enhances the precision of the representation of the whole inhabitants being studied is depicted as consistency, and if the findings of a test can be replicated using a similar technique, then the research tool is considered consistent (Kothari, 2010).

The Cronbach alpha was employed whichis the most common indicator of interior acc uracy (reliability). According to Mugenda and Mugenda, 2010), it is most widely used in a survey / questionnaire when you have several Likert questions that shape a scale as used in the report. A generally appropriate thumb rule for using Cronbach's to defin e internal consistency is as follows. When the coefficient of Cronbach Alpha is $\alpha \geq 0.9$, $0.7 \leq \alpha \leq 0.9$, $0.6 \leq \alpha \leq 0.7$, $0.5 \leq \alpha \leq 0.6$ and $\alpha < 0.7$ respectively, it is interpreted as to be excellent measure, good with low stake testing, implying acceptable, too low and thus unacceptable. It this case, inflated value can be said to opt high the value while that which is deflated is said to narrow the range of the items. Therefore, the rule of thumb was used to caution the effect.

According to Kothari (2010) reliability in research refers to the degree to which the findings of the research are consistent over time. Further, it refers to the precision or replicability of the findings using a similar technique for a given set of subjects. In this study, Cronbach’s alpha was used to determine the internal reliability of the research instrument used to collect the data on the same pilot group. Table 4.2 displays the Cronbach Alpha test results obtained.

Table 3.3: Cronbach Alpha Reliability test results

Case Processing Summary			
		N	%
Cases	Valid	57	96.6
	Excluded[a]	2	3.4
	Total	59	100.0

Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**
.817	**.809**	**43**

a. Listwise deletion based on all variables in the procedure.

Source: Research data (2022)

Cronbach’s alpha reliability coefficient ranges between 0 and 1. The closer the output is to 1, the greater the reliability and vice versa. A Cronbach alpha greater that .9 is considered excellent, greater than .8 as good, greater than .7 as acceptable, and less than .5 unacceptable. In this study, the cronbach alpha obtained was .809 suggesting that the reliability of the research instrument used was good and within the acceptable range.

3.6 Data Collection Procedure

Information for the study was conducted using structured questionnaire. This involved the use of trained research assistants to save time and energy due to the distance of the different supermarkets in the Nairobi City County. In the event of absence of the identified respondents, drop and pick approach was used to ensure all the respondents were represented in the study. In other words, in the event where the respondents were not clear of the questionnaire items, the respondents were guided by the research assistants. The data gathering lasted for four weeks' duration. In this case, the structured questionnaire served as a pre-requisite for the research problem studied.

3.7 Operationalization and Measurement of Study Variables

Operationalization basically involves the process of defining variables into measurable factors. In this study, Table 3.2 highlights measurement scale, Parameters for the variables, categorizes the variables and identifies each variable according to the category.

Table 3.3: Operationalization of variables

Name	**class**	**Operationalization**	**Measurement**	**Measurement Scale**
ICT Integration (ICTI)	Independent Variable	Process of information and telecommunication technology application in the business entity (supermarket) with the aim of improving efficiency and effectiveness of business transactions.	▪ Adoption of IT based transactions of internal processes ▪ Risks on IT models (Online shopping) Automated Machines	Ordinal scale
Management Efficiency (ME)	Independent Variable	Maximization of business profit goal through optimum utilization of resources	▪ Management of resources c ▪ Administrative Policies assessment ▪ Coordination	Ordinal scale
Physical Control of Assets (PCA)	Independent Variable	Putting in place structural organizations/business security measures toward safe-guarding the integrity of business ventures from internal and external threat	▪ Human-Based access controls and regulations ▪ Adequacy Alarms and CCTV systems controls ▪ Monitoring systems	Ordinal scale
Authorization & Approvals (AA)	Independent Variable	System upon which monetary exchange is either accepted or rejected by a relinquishing agent of the supermarket at differing levels of sales	▪ Segregation of duties assessment ▪ Level of staff discretion ▪ Staff rotation policies assessment ▪ Roles and duties duplication	Ordinal scale
Financial Risk Mitigation Efficacy (FR)	Dependent Variable	The elimination or reduction of likelihood of any financial threat associated with supermarket market business that could either increase or mar the growth of the business financial base.	▪ Income levels ▪ Leverage levels	An interval Scale

Source: Author, (2022)

3.8 Data Analysis Model and Presentation

Tools of data assessment included inferential and descriptive analytical procedures with aid of SPSS statistical software. Data gathered through the use of questionnaire was coded and analyzed. Inferential analysis included correlation and regression analysis. Findings were presented in tables and figures as well. The level of association between two or more variables was determined by use of correlations of statistics evaluating method (Levin & Rubin, 1998). The research is the first step in deciding how the independent and the dependent variables apply to statistical modeling.

Before performing an inferential analysis of using multilinear regression, Pearson correlation will be conducted so as to determine the strength and direction of the relationships between the variables. This is to show the degree of association between the independent variables as well as the dependent variable to ensure the creation of a reliable multiple prediction models which shows a non-existence association where the correlation value is 0. If the correlation is ±1.0, it implies that the relationship is absolutely negative or positive (Hair *et al.*, 2010). Values definition indicates that there is no relationship if the value is 0, and relationship increases towards ±1, where 1 implies that the relationship is perfect.

For analysis and quantification relationships between variables expressed through an equation, multiple regression of the ordinary least squares will be in use to predict values for a typical variable based on values of other variables. The researcher analyzed data with the aid of SPSS statistical software.

3.8.1 Empirical Model

Following from the conceptual construction, financial risk mitigation efficiency during Covid-19 (FR) is affected by control environment of supermarkets in Nairobi City County of Kenya whose selected components are; ICT integration (ICT); Management Efficiency (ME); Physical Controls (PC) and Authorization & Approval (AA). Therefore, the functional form of the model is expressed as:

$$\mathbf{Z = \beta_0 + \beta_1 E_1 + \beta_2 C_2 + \beta_3 K_3 + \beta_4 L_4 + \varepsilon}$$

Where:

Z = Financial Risk

β_0 = Fixed

$\beta_1 - \beta_4$= coefficient

E_1 = ICT integration (ICT);

C_2= Management Efficiency (ME);

K_3= Physical Controls (PC)

L_4= Authorization & Approval (AA)

B_0, β_1, β_2, β_3, M_4=Regression model coefficients.

ε = Error Term.

The effect of control environment and financial risk of supermarkets was tested by the model to model the cause-effect relationships among the variables, ANOVA (F) statistic, R-square statistic and beta or coefficients of the regression were appraised using the p- values measured at .05 level of significance.

3.9 Diagnostic Tests

In order to ensure valid and reliable conclusion from the study, the researcher validated the regression model by testing for problems associated with ordinary least squares estimation. Therefore, multicollinearity, heteroscedasticity, normality and autocorrelation tests were conducted.

3.9.1 Normality Test

The normality assumption of OLS was assessed using Kurtosis and Skewness values. To test the normality, skewness acceptable will fall within the range of ±2. Kurtosis acceptable range fell within the range of ±7. The null hypothesis that the disturbance terms are non-normally distributed were tested.

Data normality was tested using the Shapiro-Wilk one sample assessment. A population that is normally distributed was considered if the resulting p-value is above 0.05. Pearson analysis was used to test for linearity of the selected variables, in which the direction of the linear relationship was assessed using the coefficient of Pearson's correlation. When the coefficient is negative, it entails an indirect relationship between variables denoting movement of the variable in opposite direction. Contrarily, positive coefficient means movement of unknown variables in the same direction.

3.9.2 Multicollinearity Test

Multicollinearity is seen as a problem under regression analysis when more than one variables are highly correlated; in this case, it was difficult for one to isolate the specific marginal effects a given variable and its impact on the dependent variable (Robert, 1967). In the case where multicollinearity is 1 or -1, it makes the result of the estimated model unreliable due to increase in the variances of the parameters and thus making the model sensitive to slight changes and uninterruptable. For this study, Variance Inflation Factors (VIF) was employed to test for degree of association (collinearity) among the variables. Using a threshold of 10, multicollinearity is said to be a problem when VIFs values > 10. Contrarily, VIFs values are considered < 10, when collinearity is not a problem and hence there is no significant hindrance in regression analysis.

3.10 Ethical Considerations

Standard morals of any researcher are guided by ethical conduct in carrying research work at different steps of the study design process (Mugenda & Mugenda, 2013). Diligence was duly followed in the conduct of the study involving the procedural steps. However, a research permit was issued from Kenyatta University's authorities. Ethical clearance was obtained from the school review board i.e. license permit was obtained from NACOSTI and letter from Nairobi County Commissioner prior instigation data collection.

Other ethical properties which were considered in the study process include: deliberate involvement, secrecy and obscurity and sprite on the respondents, implying that whoever feels inconvenient with the research may willingly withdraw without coercion. Data obtained by the field researcher assumed utmost good faith and was used strictly for this study's purpose only.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter covers the data analysis, presentation, and discussion in accordance with the goals of the study. The research used a quantitative methodology and was of a descriptive character; hence, the data was analysed primarily using descriptive statistics and inferential statistics, such as percentage, means, correlations, and regression analysis. The data was presented using charts, graphs, and tables to increase clarity. The first part describes the rate of response, the second section describes the sample's characteristics, and the third portion describes the empirical results as well as the discussion of the findings.

4.2 Response Rate

The investigator dispersed 66 questionnaires. The total number of questionnaires returned was 59, with a return rate of 89.39%. Table 4.1 illustrates the study's response rate.

Table 4.1: Questionnaire Return Rate

Questionnaires	Frequency	Percentage (%)
Completed questionnaires	59	89.39
Questionnaires not completed	7	10.61
Total	**66**	**100**

Source: Research data (2022)

Mugenda & Mugenda (2003) argues that a questionnaire return rate of 80 % and above is excellent and that below 40% is unreliable. This response rate obtained in the present study was therefore considered sufficient to give credible findings.

4.4 Sample Demographics

In order to understand the profile of the sample used in this research, the demographics of the sample on the gender, age bracket, highest education level and length of experience working for supermarket were used.

4.4.1 Gender of the Respondent

The respondents were drawn from both gender. Figure 4.1 displays the gender distribution of the sample.

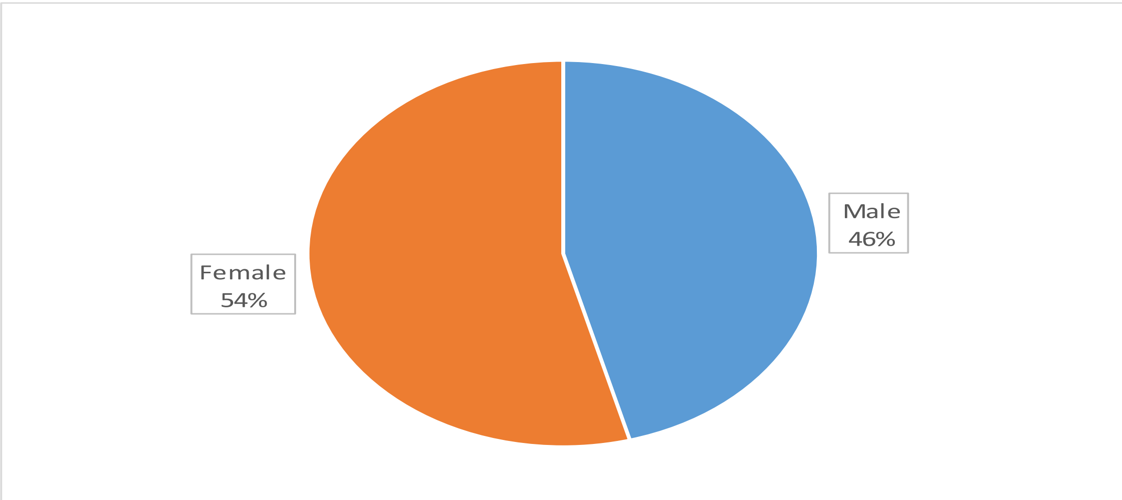

Figure 4.1: Gender of Respondents

Source: Research data (2022)

The data presented in Table 4.1 suggests that, there is near parity in the gender representation with males accounting for 46% and females accounting for 54% of the total sample. The findings suggest that the larger proportion of the respondents were females and leading to deduction that female employees dominate the supermarkets sampled in the study.

4.4.2 Age Bracket of the Respondents

The researcher wanted to establish the profile of the respondents’ age and ascertain whether or not they were mature and informed of the study's aims. Respondents were asked to provide their ages, and the following findings emerged:

Table 4.2: Age Bracket

	Age bracket	Frequency	Percent
Valid	Below 25	14	23.7
	25-35 Years	11	18.6
	36-45 Years	18	30.5
	46-55 Years	10	16.9
	Above 55 Years	6	10.2
	Total	**59**	**100.0**

Source: Research data (2022)

According to the data in Table 4.3, the many of respondents were between the ages of 36 and 45, comprising about 30.5% of the sample, followed by those under 25 years of age, comprising approximately 23.5% of the sample. Those between the ages of 25 and 35 placed third with a frequency of 11 and about 18.6% of the total respondents, followed by those between the ages of 46 and 55 with a frequency of 10 and approximately 16.6% of the total respondents who were engaged. 10.2% of the sample was constituted of respondents aged 55 and older, which was the lowest percentage of respondents. The researcher determined that the bulk of study participants were between the ages of 25 and 45.

4.4.3 Highest Education Level of the Respondent

The respondent was asked to indicate the highest level of education they attained.

Table 4.3 summarizes the results obtained.

Table 4.3: Highest Education Level

		Frequency	Percent
Valid	O-Level	8	13.6
	A-Level	6	10.2
	College Diploma/ Certificate	21	35.6
	Undergraduate	18	30.5
	Post Graduate	6	10.2
	Total	**59**	**100.0**

Source: Research data (2022)

The outcomes of the study indicated that the many of respondents had a graduate degree or certificate level of education and training as staff members with a frequency of 21 constituting approximately 35.6%, followed by those with an undergraduate level of education with a frequency of 18(30.5%), and those with O-Level educational qualifications with a frequency of 8 constituting approximately 13.6% of the total respondents. Those with both an A level and a postgraduate degree accounted for 6 (10.2%) of all responses. The majority of responders have either a college diploma/certificate or an undergraduate degree.

4.4.4 Length of experience working for supermarket

The researcher further sought to determine the length of work experience of the respondents working in the supermarket. The results were as summarized in Table 4.4.

Table 4.4: Length of experience

		Frequency	Percent
Valid	Less than 1 Year	8	13.6
	1-5	10	16.9
	6-10	22	37.3
	11-15	8	13.6
	16-20	7	11.9
	More than 20	4	6.8
	Total	**59**	**100.0**

Source: Research data (2022)

The results of the research indicated that the majority of respondents, 22 (37.3%), had served between 6 and 10 years, followed by 10 (16.9%) who had worked between 1 and 5 years. Those who had worked for 11-15 years and those who have worked for the same or less than 5 years each made up 13.6% of the total number of participants with a frequency of 8 each. Seven (11.9%) of the respondents had worked at the store for 16 to 20 years, while four (6.7%) had worked for more than 20 years.

4.5 Descriptive Statistics

Descriptive statistics tries to define the variables as well as the data, to meaningfully summarize the data, and to highlight the patterns that characterised the data. This study use descriptive statistics such as frequencies, means, and standard deviations. The descriptive analysis findings are given using tables, charts, and graphs for clarity. The descriptive analysis is objectively arranged.

4.5.1 ICT Integration and Financial Risk Mitigation Efficiency

The first objective sought to assess the influence of ICT integration (ICTI) on the financial risk mitigation efficiency. The participants were to indicate the level to which they agreed or disagreed with a set of statement relating to the relationship between ICT integration and financial risk mitigation. A Likert scale of 1-5 was used where 1represented Strongly Agree (SA) and 5 represented Strongly Disagree (SD). Table 4.5 displays the means and standard deviations obtained for each construct.

Table 4.5: ICT Integration (ICTI) and Financial Risk Mitigation Efficiency

ICT Integration (ICTI)	M	SD
The information communication technology adopted during the pandemic by the entity has greatly improved efficiency of internal processes	2.61	1.352
Specifically, technology based transactions emanating from ICT integration has significantly reduced errors and fraud related cases during the pandemic and overtime	2.47	1.223
The online ICT shopping integration instituted by the entity has been great success especially during the pandemic and after in relation to risk mitigation and improved operation efficiency	2.25	1.154
ICT Integration significantly reduced the cost of transactions per unit and increased the breadth and access to the customers during and after the COVID-19 pandemic	2.25	1.421
ICT Integration in the organization has brought about a more effective model and approaches for handling client information (CRM).	2.07	1.201
ICT adoption has brought about the opportunity of branching into business venture and more effective instruments for regulating internal operations efficiency during and after COVID-19	2.31	1.263

Source: Research data (2022)

On the Likert scale of 1 to 5, a grand mean of 2.9 indicates broad agreement, while a grand mean of > 2.9 indicates substantial disagreement. Based on the descriptives provided in Table 4.6 and the grand mean of 2.327, it can be concluded that the respondents agree that ICT integration has a substantial influence on the financial risk management efficiency of a supermarket.

The findings of the study on the ICT integration as a significant factor affecting financial risk mitigation efficiency in a case of a supermarket are consistent with those documented by Patterson (2015) who found that information technology usage in risk management, data advancement proceeded the advance and give associations more and better capacities in distinguishing, gathering, sorting out, breaking down, and overseeing information in South Africa. Further, the study by Kumsuprom *et al*. (2018) in Thai made similar findings where the study indicated that effective risk management using ICT focusing on the management and operational level activities was crucial in guaranteeing collaboration. Finally, the link between ICT integration and financial risk management found in the present study concurs with those of Faris, Syed, and Mohammed (2019) whose findings presented using 2 key ICT factors: permanent broadband as well as online services as substitutes for ICT, and home loan to the business sectors as a proportion of Income as well as broad money supply/GDP as 2 substitutes for the finance progress indicator.

4.5.2 Management Efficiency (ME) and Financial Risk Mitigation Efficiency

The second purpose of the research was to evaluate the impact of management efficiency on the effectiveness of financial risk reduction. Respondents were asked to indicate their degree of agreement or disagreement with a series of statements about the link between ICT integration and financial risk management. On a scale from 1 to 5, 1 indicated Strongly Agree (SA) and 5 indicated Strongly Disagree (SD) (SD). Each construct's averages and standard deviations are shown in Table 4.7.

Table 4.6: Management Efficiency (ME) and Financial Risk Mitigation Efficiency

CODE	Management Efficiency (ME)	M	SD
ME 1	The management of the organization has instituted an appeal process in place in which, if the employee disagrees with the appraisal.	2.31	1.263
ME 2	The management has separated the duties authorizations and approvals to different persons hence mitigating against fraud especially during the pandemic	2.37	1.299
ME 3	Here, performance Standards are consistent during the pandemic across the organization and equity principle upheld as per the corporate policies & regulations	2.27	1.257
ME 4	There is proper coordination of activities during COVID-19 by management	2.34	1.266
ME 5	There is effective level of supervision by managers especially during the pandemic	2.56	1.022
ME 6	In this organization, managers are held accountable for doing effective appraisals.	2.42	1.262
Grand Average		**2.378**	**1.228**

Source: Research data (2022)

On the Likert scale of 1 to 5, a grand mean of 2.9 indicates broad agreement, while a grand mean of > 2.9 indicates substantial disagreement. Based on the descriptives shown in Table 4.6 and the grand mean of 2.378, it can be concluded that the respondents agree that management efficiency has a considerable impact on the financial risk mitigation efficiency of a supermarket.

On the influence of management efficiency on the financial risk mitigation, the study found that management efficiency has a strong influence on the financial risk mitigation. Other studies had similar findings. For instance, Wright and Stigliani (2013) found that management reputation and the policies adopted by the management to run the company and to minimize bank financial distress will affect how signals of a firm distress will be handled. Further, Poletti- Hughes and Ozkan (2014) found that management efficiency level as reflected in the level of operating expenses, with a lower level of operating expenses being an indicator of higher level of management efficiency, and therefore higher profitability and value of the firm. Also, Matayo and Muturi, (2018) found that market and operational risks had an appreciable effect on Kenya's large supermarkets financial performance and thus managers of large supermarkets should continually aim at minimizing the financial and operational risks through effective and efficient management of inventory, cutting down on idle capacity and employees as well as investing in the most current technologies which stimulate innovation across the management of the supermarkets.

4.5.3 Physical Control of Assets (PCA) and financial risk mitigation efficiency

Examining the impact of physical control of assets on the effectiveness of financial risk mitigation was the study's third objective of the study. A series of statements about the connection between physical control of assets and financial risk mitigation were presented to the respondents, and they were asked to express their level of agreement or disagreement. The Likert scale was employed, with 1 denoting "Strongly Agree" (SA) and 5 denoting "Strongly Disagree" (SD). The obtained standard deviations and mean values for each construct are shown in Table 4.8.

Table 4.7: Physical Control of Assets (PCA) and financial risk mitigation efficiency

CODE	Physical Control of Assets (PCA)	M	SD
PCA 1	Security system installed, do identify and safeguard institutional assets effectively especially during COVID-19	2.54	1.222
PCA 2	Astonishment cash checks are generally shown to alleviate against instances of swarming and lading of cash	2.32	1.224
PCA 3	All resources obtained are calculated and scrutinized preceding to admittance on pantry/inventory records during the pandemic	2.56	1.173
PCA 4	Stock accounts are kept grounded on intermittent physical tallies or a everlasting scheme	2.25	1.092
PCA 5	Human-Based Regulator Actions e.g. check in/out time are excellently established and obeyed to during COVID-19	2.90	0.995
PCA 6	Alarms and CCTV systems are properly mounted and function effectually in abetting physical controls of all resource in the unit	2.63	1.015
Grand Average		**2.533**	**1.120**

Source: Research data (2022)

A grand mean of 2.9 indicates general agreement, whereas a mean of > 2.9 indicates general disagreement on the Likert scale of 1 to 5. Given the grand mean of 2.533 and the descriptives shown in Table 4.7, it is implied that the respondents agree that physical control of assets has a considerable impact on the effectiveness of financial risk reduction in the case of a supermarket.

The link between physical control of assets and financial risk mitigation documented in the present study was also found by Dan and Richard (2013) found that noticeable virtual cameras and redistribution signals that read possible assailants of the nearness of caution frameworks and checking may fill in as an impediment to frauds. Further, their study found that notwithstanding of whether the entirety of the physical control systems are functioning properly, it is plausible so as to breeches are permissible by representatives who partake not been properly primed or who are remiss in the presentation of safety techniques. Further, Seider and Dan (2014) found that, as the evaluation of the advantage and the threat of adversity builds, the advancement of the substantial entrance reins have to likewise increment.

4.5.4. Transactions Approval/ Authorization (AA) and financial risk mitigation efficiency

Evaluation of the impact of transaction approval and authorization on the effectiveness of financial risk mitigation was the study's fourth objective. A series of statements about the connection between ICT integration and financial risk mitigation were presented to the respondents, and they were asked to express their level of agreement or disagreement. The Likert scale was employed, with 1 denoting "Strongly Agree" (SA) and 5 denoting "Strongly Disagree" (SD). The obtained averages and standard deviations for each construct are shown in Table 4.9.

Table 4.8: Approval/Authorization (AA) and Financial Risk Mitigation

Authorization & Approvals (AA)		M	SD
AA 1	In this retail outlet, employees endure obligation based on position held	2.17	1.289
AA 2	There is efficacy in validation of bookkeeping booklets	2.56	1.086
A 3	Permission and endorsement of bookkeeping booklets is accurately organized during COVID-19	2.44	0.970
AA 4	There are negligible likelihoods of conspiracy amongst countersigners especially during COVID-19	2.71	0.811
AA 5	In this institute. Signature/s of approvers of booklets are acknowledged crosswise the corporate unit	2.20	0.961
AA 6	All booklets are permitted prior to expenditures	2.32	1.196
AA 7	Confirmation processes are well predictable and signified out	2.44	1.103
Grand Average		**2.406**	**1.059**

Source: Research data (2022)

A grand mean of 2.9 indicates general agreement, whereas a mean of > 2.9 indicates general disagreement on the Likert scale of 1 to 5. Given the overall mean of 2.406 and the descriptives shown in Table 4.8, it can be deduced that the respondents believe that the effectiveness of financial risk reduction in the case of a supermarket is significantly influenced by the permission and authorization of transactions.

The findings of the present study on the influence of the authoritization and approvals on the financial risk mitigation are consistent with the findings of other research studies. For instance, Mwakimasinde, Odhiambo and Byaruhanga (2014) found that in the sugarcane cultivator organizations in Kenya assumed the most persuasive job having a direct and critical effect on the execution of money related operations of sugarcane producers’ organizations in Kenya. Further, Wambua, Okibo, Nyang'au and

Ondieki (2015) in their study found a strong statistical evidence of association between profitability and stock storage mechanisms. They also discovered that stock storage methods, featuring a beta value of 0.311, provided a considerable impact on productivity. Also, Songhor, (2018) study revealed that debt financing has the possibility of predicting financial distress to the tune of 58.7%. Also, the study found out that there was a remarkable negative impact caused by the debt financing to the financial distress experienced by the firms. In addition, the financial leverage and financial distress exhibited a negative correlation while productivity, liquidity, utilization of assets and the solvency both of which correlated positively with the financial distress experienced by financial organizations.

4.6 Diagnostic Tests

4.6.1 Normality Test

The K-S explanation was employed since the two sample Kolmogorov-Smirnov test is a non - parametric test that analyzes the collective distribution of two data sets (1, 2). The K-S statistic furthermore offers a quick technique to evaluate the level of normality in the data (Mugenda and Mugenda, 2003). As the value deviates from zero, it becomes more likely that the data does not closely resemble a normal distribution, providing a relative indicator of normality. According to Mugenda & Mugenda, 2003, data is considered to be regularly distributed in the Kolmogorov-Smirnov statistic test if the significance value is > 0.5. The study's findings revealed that all of the variables—credit processing management, information security, data management, communication management through the control environment, and financial risk mitigation had Kolmogorov-Smirnova Sig. > 0.05, demonstrating that the data was normally distributed as shown in Table 4.9.

Table 4.9: Test for Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Information Communication Technology Integration (ICTI)	.132	59	.492
Management Efficiency (ME)	.148	59	.136
Physical Control of Assets(PCA)	.112	59	.153
Authorization and Approvals(AA)	.109	59	.063
Financial Risk Mitigation Efficiency(FR)	.141	59	.132

a. Lilliefors Significance Correction

Source: Research data, (2022)

The results obtained from the data indicates that all the Kolmogorov-Smirnov[a] Sig.>0.05 suggesting that the data was normally distributed.

4.6.2 Collinearity Diagnostic Test

To measure the multicollinearity in the data, the study used the Variance Inflation Factor (VIF) and tolerance. If the tolerance value is low, it should not be included in the regression equation because it implies that the variable under evaluation is almost a strong linear combination of the predictor factors already present in the equation. All of the factors at play in the linear connection should have a reasonable tolerance. More research on tolerance values higher than three should be conducted, according to Cooper and Schindler (2010). The variance inflation factor measures the impact of collinearity among the variables in a regression model (VIF). The VIF, defined as 1/Tolerance, is always greater than or equal to 1. Although in weaker models, readings above 5.0 may be cause for concern, VIF values above 10 are usually believed to definitively indicate multicollinearity concerns (Cooper and Schindler, 2010). Multicollinearity, according to Cooper and Schindler (2010), is probably an issue when VIF values for any of the model's variables are high. The results of tests for collinearity are shown in Figure 4.10.

Table 4.10: Collinearity Statistics Coefficient[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Information Communication Technology Integration (ICTI)	.384	2.604
	Management Efficiency (ME)	.538	1.858
	Physical Control of Assets(PCA)	.504	1.984
	Authorization and Approvals(AA)	.373	2.684

a. Financial Risk Mitigation Efficiency (FR)

Source: Research data, (2022)

According to the results obtained from the data as tabulated in Table 4.11, all test categories had a variance inflation factor (VIF) of less than 3.0. As a result, there were no problems that called into question the multicollinearity of the research variables.

4.7 Inferential Statistics

Inferential statistics seeks to draw inferences, generalizations, conclusions and estimations based on the empirical data obtained from the sample. In this case, inferential statistics enables the researcher to draw conclusions about the population using the data obtained from the sample.

4.7.1 Correlational Analysis

The Pearson R, commonly known as linear or product-moment correlation, is one of the most used forms of correlation coefficients. The two variables under consideration for this study are presumed to be monitored on at least interval scales. To ascertain how the research variables connected to one another in this study, Pearson correlation was used. The strength of the linear relationships between two variables is shown by Pearson's correlation. It falls between +1 and -1. A correlation of 1 indicates a perfect linear positive link between the two variables (Mugenda & Mugenda, 2003).

Table 4.11: Bivariate Correlation Analysis

		ICT	ME	PCA	AA
ICT	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	59			
ME	Pearson Correlation	.463**	1		
	Sig. (2-tailed)	.000			
	N	59	59		
PCA	Pearson Correlation	.318*	.721**	1	
	Sig. (2-tailed)	.014	.000		
	N	59	59	59	
AA	Pearson Correlation	.576**	.406**	.590**	1
	Sig. (2-tailed)	.000	.001	.000	
	N	**59**	**59**	**59**	**59**

Source: Research Data, (2022)

According to the results tabulated in Table 4.10, the Pearson's R values for all the relationships between the variables are statistically significant at .05 level. That is, .463, .318, .576 and .590 suggesting that the independent variables were highly positively correlated to the dependent variable.

4.7.2 Multiple Linear Regression Analysis

Multiple regressing analysis was computed to derive the relationship between the variables. The diagnostic tests of normality, collinearity, and linearity were fulfilled and thus the multiple regression analysis could be computed. The findings of the regression analysis were as displayed in Table 4.11.

4.7.2.1 Model Summary

The model summary table gives a report on the strength of the relationship that exists between the model and the dependent variable. The multiple correlation coefficient R is the linear correlation between the model predicted values and the observed values of the dependent variable. Table 4.12 displays the model summary for the results.

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.198	.885

Source: Research data, (2022)

The information displayed on Table 4.13 indicates that the four variables tested, ICT Integration (ICTI), Management Efficiency (ME), Physical Control of Assets (PCA) and Authoritization and Approvals (AA) explain 25.5% of the variability in the dependent variable, Financial Risk (FR).

4.7.2.2 ANOVA

The Analysis of Variance (ANOVA) presents the calculations that give information on the levels of variability that exists in the regression model and forms a basis for the tests of significance. The information on the ANOVA table estimates the level of significance of the model as a predictor of the outcome variable. Table 4.13 displays the ANOVA table for the data collected.

Table 4.13: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	13.963	4	3.491	4.459	.004[a]
	Residual	40.704	52	.783		
	Total	**54.667**	**56**			

Source: Research Data, (2022)

The test for the statistical significance of the relationship between the variables using Analysis of Variance(ANOVA) indicates that there is a statistically significant relationship between the variables and that the independent variables statistically significantly predict the dependent variable($p<0.05$). In addition, the F value calculated was 4.459 which was higher that the F critical value of 2.70 at 5%, indicating that the overall model is statistically significant.

4.7.2.3 Regression Coefficients

The parameter, regression coefficient signifies the amount by which a change in the independent variable must by multiplied to provide the corresponding mean change in the dependent variable. Further, it shows the amount of the dependent variable that changes for every unit change in the independent variable. The results of the regression coefficients were as displayed in Figure 4.15.

Table 4.14: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.963	.426		2.26	.028
ICT Integration	.191	.134	.275	2.42	.004
Management Efficiency	.339	.122	.453	2.77	.008
Physical Control of Assets	.123	.153	.135	3.80	.047
Authoritization and Approvals	.733	.238	.705	3.07	.003

Source: Researcher (2023)

The regression model estimated indicated that when the dependent variables tested, ICT Integration (ICTI), Management Efficiency (ME), Physical Control of Assets (PCA) and Authoritization and Approvals (AA) are at constant zero, the Financial Risk (FR) is at .963. Further, it was established that Authoritization and Approvals predict 73.3%, management efficiency predicts 33.9% and ICT Integration predicts 19.1% and Physical Control of Assets control 12.3% of financial risk.

As can be seen in Table 4.14, ICT Integration (ICTI), Management Efficiency (ME), Physical Control of Assets (PCA) and Authoritization and Approvals (AA) are significant predictors of Financial Risk mitigation($p<.05$). Hence there was no adequate evidence to reject the null hypotheses. The relationships between the variables were found to be statistically significant at .05 significance level. Based on the relative levels of influence on the dependent variable, the results suggest that the model that links the variables in the study may be expressed as follows; $\mathbf{Z = 0.963 + 0.191\ E_1 + 0.339\ C_2 + 0.123\ K_3 + 0.733\ L_4 + \varepsilon}$

The study sought to determine how different aspects of the control environment influences the financial risk mitigation. The multiple regression breakdown outcomes displayed that there survives a substantial association amongst approval and authorization of transactions and financial risk mitigation efficiency ($p<.05$). The study further found that physical control of assets is a statistically significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.733$, $p<.05$). The results also indicate that the relationship is positive suggesting that a greater investment in approval and authorization of transactions corresponds to greater financial risk mitigation efficiency. The findings of the study therefore suggest that financial risk mitigation can be optimized by making adequate positive changes on the independent variables tested.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the precipitate, conclusion and commendations on the exploration outcomes of the study. The universal objective of the study was to investigate the associated link between control environment and financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. Specifically, the study sought to institute the consequence of information communication and technology integration, management efficiency, physical control of assets and approval and authorization of transactions on financial risk mitigation efficiency. This section presents the summary of findings, conclusions, recommendations, limitations of the study and recommendations for further study.

5.2 Summary of the Study

The study sought to investigate the associated link between control environment and financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. Multiple regressing analysis indicated that the four variables tested, ICT Integration, management efficiency, physical Control of Assets and Authoritization and approvals explain 25.5% of the variability in the dependent variable, financial risk.

The first objective of the study sought to determine information communication and technology integration effect on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. The multiple regression breakdown consequences exhibited that there exists a noteworthy association amongst information communication and technology integration effect on financial risk mitigation efficiency ($p<.05$). The study further found that information communication and technology integration is a statistically significant predictor of financial risk mitigation efficiency ($\beta_{1=}0.191$, $p<.05$). The results also indicate that the relationship is positive suggesting that a greater investment in information technology integration corresponds to greater financial risk mitigation efficiency.

The second objective of the study sought to examine management efficiency influence on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. The multiple regression breakdown outcomes exhibited that there survives a noteworthy association between management efficiency effect and financial risk mitigation efficiency ($p<.05$). The study further found that management efficiency is a statistically significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.339$, $p<.05$). The results also indicate that the relationship is positive suggesting that a greater investment in management efficiency corresponds to greater financial risk mitigation efficiency.

The third objective of the study sought to examine physical control of assets influence on financial risk mitigation efficiency of supermarkets chains during COVID-19 in Nairobi City County, Kenya. The multiple regression breakdown outcomes exhibited that there survives a noteworthy association between physical control of assets and financial risk mitigation efficiency ($p<.05$). The study further found that physical control of assets is a statistically significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.123$, $p<.05$). The results also indicate that the relationship is positive suggesting that a greater investment in physical control of assets corresponds to greater financial risk mitigation efficiency.

The fourth objective of the study sought to determine the how approval and authorization of transactions impacts on the on financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. The multiple regression breakdown outcomes exhibited that there survives a noteworthy association between approval and authorization of transactions and financial risk mitigation efficiency ($p<.05$). The study further found that physical control of assets is a statistically significant predictor of financial risk mitigation efficiency ($\beta_{2=}0.733$, $p<.05$). The results also indicate that the relationship is positive suggesting that a greater investment in approval and authorization of transactions corresponds to greater financial risk mitigation efficiency.

5.3 Conclusions of the Study

The study was to investigate the associated link between control environment and financial risk mitigation efficiency of supermarkets chain during COVID-19 in Nairobi City County, Kenya. Multiple regressing analysis indicated that the four variables tested, ICT Integration, management efficiency, physical Control of Assets and Authoritization and approvals jointly significantly affect financial risk mitigation efficiency in business organizations. When analysed individually, the different aspects of the control environment have varying influences on the financial risk mitigation efficiency. Information Communication and Technology (ICT) integration, management efficiency, physical control of assets and authoritization and approvals of transactions are statistically significant predictors of financial risk mitigation efficiency.

5.4 Recommendation of the Study

The proposed study's findings on the control environment and financial risk mitigation will help businesses reduce the risks associated with shoddy domestic control mechanisms as a key mechanism for maximizing shareholders' wealth will be explored, which will improve the development and organization of internal control systems by various businesses. The study's findings will also help to lessen the financial risks brought on by companies' poor internal control procedures in an effort to support supermarket value chains.

The inquiry will be extremely beneficial to the administration and management. This will help management calculate how much of the risk the operator has assumed, as well as ways to enhance the company's operations in terms of evaluation techniques for the suitability of the risk assumed by management. The findings will help grocery store managers assess the strength or weakness of control settings related to financial threats. Managers may create policies and offer guidance to assist the shop increase efficiency when corporate financial risk administrators understand how the control environment affects financial risk.

Grounded on the outcomes, recommendations are:

First, business organizations such as supermarkets should invest heavily in information technology integration into theory operations. This can be achieved by automating more operations to enhance their efficiency and effectiveness. Secondly, business organizations can enhance their financial risk mitigation by enhancing their managerial efficiency to minimize wastes and losses thus enhance the overall business efficiency. Thirdly, business organizations need to enhance their control of physical assets by installing more efficient control and monitoring systems. Finally, business organizations such as banks need to enhance their systems of tracking, approving and authenticating transactions to reduce fraud and enhance transparency.

5.5 Limitations of the Study

As a result of the study's use of a descriptive correlational research methodology, it was initially restricted to the associations that already existed between the variables and was unable to infer any causal connections between the variables that were being assessed. In order to overcome this constraint, the study conducted a bivariate correlation between the variables in addition to relying solely on the findings of multiple regression to determine the degree of link between the variables.

A single key informant strategy was used to gather the data of this investigation, which restricts access to information. Instead of using absolute figures, the response was based on self-reported statistics that represented the respondent's impressions. Additionally, even if the answers to each question were taken from earlier research, not all options might have been taken into account. In order to mitigate this, the study conducted validity and reliability tests on the instrument used to collect data, and it sufficiently developed enough pertinent questions to address the study's objectives.

Last, the study's responses were limited to certain staff classifications. This indicates that the findings may not apply to all the supermarkets in Kenya as a whole. The sample selection may also limit the generalization of results to the overall population.

5.6 Suggestions for Further Study

First, this study can be replicated in other organizations and supermarkets in other towns to establish whether similar findings would be made. Also, the scope of the study may be expanded to include other types of businesses as well as the public sector organizations.

Lastly, this study has found that the four variables tested predict only 50.5% of the variability in the financial risk mitigation in the supermarkets. It would be imperative that further study be conducted to test other variables that may account for the remaining variance and thus obtain other determinants of financial risk mitigation in the business organizations.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Dear Participant,

I'm **James Kamau Kimani,** enrolled for a MBA (Finance Option) at Kenyatta University. Presently, I am in the process of undertaking a research which explores the association that may exist amongst control environment and financial risk mitigation efficiency of hypermarket during Covid-19 in Nairobi City Kenya. This work is virtuously for academics devotions and will not be used for any other resolve. Any information you provide for this research study will be treated with utmost anonymity and confidentiality. Your participation as one of the respondents for the present study is highly appreciated.

Thank you.

James Kamau Kimani

D53/CTY/PT/27318/2018

APPENDIX II: QUESTIONNAIRE

SECTION I: DEMOGRAPHCI INFORMATION

(Please tick (√) as appropriate in the provided boxes)

1. **Sex**

☐ Male ☐ Female

2. **Age**

☐ Below 25 Years ☐ 25-35 Years

☐ 36-45 Years ☐ 46-55 Years

☐ Above 55 Years

3. **What is your highest level of education?**

☐ Primary ☐ O-Level

☐ A-Level ☐ College Diploma/Certificate

☐ Undergraduate ☐ Post Graduate

4. **How long have you worked for Supermarket?**

☐ Less than 1 Year ☐ 1-5 Years

☐ 6-10 Years ☐ 11-15 Years

☐ 16-20 Years ☐ More than 20 Years

SECTION II: ICT INTEGRATION (ICTI)

4. Please tick (√) as appropriate in the provided boxes against the option that that reflects the extent to which you agree or disagree with the statements given. Use **1**for Strongly Agree (SA) to **5** for Strongly Disagree (SD) by ticking (√) the appropriate response.

ICT Integration (ICTI)		**1- SA**	**2**	**3**	**4**	**5 - SD**
ICTI 1	The information communication technology adopted during the pandemic by the entity has greatly improved efficiency of internal processes					
ICTI 2	Specifically, technology based transactions emanating from ICT integration has significantly reduced errors and fraud related cases during the pandemic and overtime					
ICTI 3	The online ICT shopping integration instituted by the entity has been great success especially during the pandemic and after in relation to risk mitigation and improved operation efficiency					
ICTI 4	ICT Integration significantly reduced the cost of transactions per unit and increased the breadth and access to the customers during and after the COVID-19 pandemic					
ICTI 5	ICT Integration in the organization has brought about more efficient system and techniques for dealing with information on customers (CRM).					

ICTI 6	ICT adoption has brought about the likelihood of varying into new commercial and more efficient tools for controlling internal processes efficiency during and after COVID-19					

SECTION III: MANAGEMENT EFFICIENCY (ME)

Management Efficiency (ME)		**1-SA**	**2**	**3**	**4**	**5 - SD**
ME 1	The management of the organization has instituted an appeal process in place in which, if the employee disagrees with the appraisal.					
ME 2	The management has separated the duties authorizations and approvals to different persons hence mitigating against fraud especially during the pandemic					
ME 3	Here, performance Standards are consistent during the pandemic across the organization and equity principle upheld as per the corporate policies & regulations					
ME 4	There is proper coordination of activities during COVID-19 by management					
ME 5	There is effective level of supervision by managers especially during the pandemic					

ME 6	In this organization, managers are held accountable for doing effective appraisals.					

SECTION IV: PHYSICAL CONTROL OF ASSETS (PCA)

Physical Control of Assets (PCA)		**1- SA**	**2**	**3**	**4**	**5 - SD**
PCA 1	Security system installed, do identify and safeguard institutional assets effectively especially during COVID-19					
PCA 2	Astonishment cash checks are generally shown to alleviate against instances of swarming and lading of cash					
PCA 3	All resources obtained are calculated and scrutinized preceding to admittance on pantry/inventory records during the pandemic					
PCA 4	Stock accounts are kept grounded on intermittent physical tallies or a everlasting scheme					
PCA 5	In this entity Human-Based Control Procedures e.g. check in/out time are excellently established and obeyed to during COVID-19					
PCA	Physical checks e.g. Alarms and CCTV					

6	systems are properly mounted and function effectually in abetting physical controls of all assets in the unit					

SECTION V: AUTHORIZATION & APPROVALS (AA)

Authorization & Approvals (AA)		**1-SA**	**2**	**3**	**4**	**5 - SD**
AA 1	In this retail outlet, employees endure obligation based on position held					
AA 2	There is efficacy in validation of bookkeeping booklets					
AA 3	Permission and endorsement of bookkeeping booklets is accurately organized during COVID-19					
AA 4	There are negligible likelihoods of conspiracy amongst countersigners especially during COVID-19					
AA 5	In this institute. Signature/s of approvers of booklets are acknowledged crosswise the corporate unit					
AA 6	All booklets are permitted prior to expenditures					

AA 7	Confirmation processes are well predictable and signified out					

SECTION V: FINANCIAL RISK (FR)

Tick where appropriate within which range of income and leverage levels within which your supermarket falls in the various years listed below. The incomes is in terms of millions Kenyan Shillings.

Year	Income Levels (KSH in Millions)						Leverage levels(Debt capital)				
2015	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2016	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2017	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2018	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2019	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2020	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											
2021	-20-10	10-50	50-200	200-400	400-600	600-900	200-300	300-400	400-500	500-600	600-800
✓											

APPENDIX III: LIST OF SUPERMARKET CHAIN

1. White Candle Supermarket
2. Wateule Supermarket
3. Waiyaki Way Supermarket
4. Venture Mini Supermarket
5. Uthiru Fair Price Supermarket
6. Uchumi Supermarket (Aghakhan Walk)
7. Tumaini Supermarket Nairobi City
8. Tumaini Supermarket
9. Sundus Supermarket
10. Stop & Shop Supermarket
11. StageMatt Supermarket
12. Souk Bazaar Supermarket
13. Skymart Supermarket
14. Shoprite Westgate Nairobi.
15. Seraben Supermarket
16. Rikana Supermarket
17. Quickmart Supermarket
18. Power star Supermaket
19. Panje Supermarket
20. PakMatt Supermarket
21. Naivas Supermarket – Westlands
22. Naivas Supermarket - Moi Avenue (Development House)
23. Naivas Supermarket – Eastgate
24. Naivas Limited

25. Naivas Head OfficeSupermarket
26. Naivas - CBD (Moi Avenue)
27. Mumtaz Supermarket
28. Midas Supermarket
29. Mesora Supermarket
30. Mathai Supermarket (Ronald Ngala)
31. Lumumba Drive Supermarket
32. Leestar Supermarket
33. Kibao Supermarket
34. Kassmart Supermarket
35. Jossics Supermarket
36. Jopampa Provision Store
37. Jokies Supermarket
38. JJanamu Supermarket
39. Jaharis Supermarket
40. Homechoice Supermarket
41. Homecare Enterprises Ltd
42. Home Depo Supermarket
43. Home Choice Supermarket
44. G-Mart Supermarket
45. Galmart Supermarket
46. Fourty Six Supermarket
47. FoodPlus Two Rivers Mall
48. Foodies Supermarket
49. Fairlane Supermarket

50. Fairdeal Shop & Save Ltd

51. Fair Price Supermarket

52. Esajo Supermarket

53. Ebrahim & Co Ltd Supermarkets

54. Ebrahim & Co Ltd Supermarket

55. Easy Mart Supermarket

56. Eastmatt Supermarket (River Road)

57. EastMatt Mfangano Supermarket

58. Eagles Supermarket

59. Daily Basket Supermarket

60. Cleanshelf Supermarket

61. Choppies Supermarket (Mfangano St)

62. Chandarana Supermarket (Ngara Rd)

63. Chandarana Foodplus Supermarket (Yaya)

64. Chandarana Foodplus Supermarket (Lavington Branch)

65. Chandarana Food Plus Supermarket Ltd (Head Office)

66. Carrefour Sarit Center

Source; (RETAK, 2019)

APPENDIX IV: RESEARCH AUTHORIZATION

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/27318/2018

DATE: 22nd August, 2022

Director General,
National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR JAMES KAMAU KIMANI– REG. NO. D53/CTY/PT/27318/2018

I write to introduce James Kamau Kimani who is a Postgraduate Student of this University. The student is registered for M.B.A degree programme in the Department of Accounting and Finance.

Jacob intends to conduct research for a M.B.A Project Proposal entitled, **"Control Environment and Financial Risk Mitigation Efficiency of Supermarkets During Covid-19 in Nairobi City County, Kenya."**

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

AM/mo

APPENDIX V: RESEARCH PERMIT

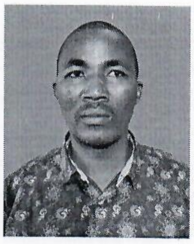
REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **150569**

Date of Issue: **31/August/2022**

RESEARCH LICENSE



This is to Certify that Mr.. james KAMAU kimani of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: Control Environment and Firnancial Risk Mitigation Efficiency of Supermarkets During covid 19 in Nairobi City County, Kenya for the period ending : 31/August/2023.

License No: **NACOSTI/P/22/20079**

150569

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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