

**THE EFFECT OF BUSINESS PROCESS MANAGEMENT ON FINANCIAL
PERFORMANCE OF TIER ONE SUPERMARKETS IN NAIROBI COUNTY, KENYA**

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DECLARATION

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

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LIST OF ABBREVIATIONS

ABPMP	Association of Business Process Management Professionals
BPM	Business Process Management
CAK	Competition Authority of Kenya
CFI	Corporate Finance Institute
RETRAK	Retail Traders Association of Kenya
ROA	Return on Assets
ROI	Return on Investment

DEFINITION OF KEY TERMS

Business Process Management (BPM): A systematic approach that focuses on designing, implementing, monitoring, and continuously improving organizational processes to achieve efficiency, effectiveness, and alignment with strategic objectives.

Financial Performance: A measure of how well an organization uses its assets and operations to generate revenue and profits, often assessed through indicators such as sales turnover, return on assets (ROA), and return on investment (ROI).

Process Discipline: The extent to which employees and managers consistently follow documented procedures, rules, and standards, ensuring uniformity and compliance in daily operations.

Process Improvement: The deliberate and continuous effort to analyze, redesign, and enhance existing processes to increase efficiency, reduce costs, eliminate waste, and improve overall organizational outcomes.

Cross-Process Integration: The degree to which different processes within an organization are interconnected and coordinated, enabling seamless information flow, collaboration, and alignment across departments or functions.

ABSTRACT

The business environment is increasingly challenging as competition intensifies. The success of a business requires the development of a customer-centric approach to differentiate itself and build customer loyalty. Business activities must be aligned with this purpose, forming interconnected processes that execute organizational strategy. This study examined the effect of BPM on the financial performance of Tier 1 supermarket chains in Nairobi County, Kenya, specifically focusing on the effects of process discipline, process improvement, and cross-process integration. The study was anchored on Lee and Dale's BPM model, focusing on three constructs: process discipline, process improvement, and cross-process integration. A descriptive cross-sectional survey research design was employed. The target population comprised seven Tier 1 supermarkets as classified by the Competition Authority of Kenya. Using purposive sampling, 105 respondents in supervisory roles from core departments- Finance, Procurement, IT, Marketing, and Human Resource Management- were selected. Data was collected using structured questionnaires with closed-ended items. The collected responses were sorted, cleaned, and coded, then analyzed using the Statistical Package for Social Sciences (SPSS). The analysis employed the use of descriptive statistics to summarize the data and inferential techniques to test the relationships between variables. The results demonstrated that BPM has a statistically significant and positive influence on financial performance among Tier 1 supermarkets. More precisely, the three BPM dimensions examined were each found to exert a significant effect on the key financial indicators in this study- sales turnover, ROA, and ROI. The study concluded that structured process management enhances financial outcomes and recommends BPM adoption for sustainable competitive advantage.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the corporate world, financial performance is one of the most critical indicators of organizational success, as it reflects a firm's capacity to utilize its resources effectively to generate revenue, profitability, as well as long term sustainability. This is particularly important in the retail sector, specifically within supermarkets. Financial performance in this case is typically evaluated using indicators such as sales turnover, return on assets (ROA), and return on investments (ROI). This performance, however, does not occur in isolation. It is consistently shaped by the continuous changes in the economic environment, which is characterized by shifting consumer demands, recessions, technological advancements as well as other global events such as the Covid19 pandemic. For this reason, firms are required now more than ever to adapt to sometimes extreme changes within the business environment, which is both radical and chaotic (Grigore & Drăgan, 2015). Galbraith (2005) noted that to achieve success and viability in the twenty-first century, a company must remain customer-centric. Products and services on their own commoditize over time and collapse profit margins, making the new foundation of profitability the customer relationship. Customer-centricity makes things simple for the customer, making their choices of purchase easy and maintaining their loyalty. For a customer-facing business like retail, which relies heavily on quick customer conversion and maintenance of loyalty, this is the be-all and end-all (Galbraith, 2005).

To this end, the value chain framework comes into play. It shows the link between value-creating activities and depicts the flow of value from the producer to the customer (Porter, 1985). These activities constitute larger groups, all of which add up to the business processes that execute strategy. A process is a series of activities performed to get to a pre-determined result. Therefore, a business process can be identified as the strings of action that link the operations of a business to the needs of the final consumer (Zairi, 1997). Competitive advantage stems from the many discrete activities a firm performs, their proper performance, and the cohesion of the chain of activities (Porter, 1985). It was noted that the use of this orientation was not as pervasive as it

should be. Even so, the maintenance of competitive advantage calls for one to view management through processes (Lee & Dale, 1998). With increased focus on the hum of operations, companies are constantly seeking ways to improve productivity. Business process management was an approach that is dependent on strategy, operations, the use of modern technology, people involvement, and a horizontal focus (Zairi, 1997).

Heightened competition brought about by changes in the retail sector has been the theme of the 21st century, taking a toll on retailers' profit margins (Lawi, 2022). Retailers serving similar customers and needs get caught following a lockstep, trying to move forward, are forced to invest heavily in similar expansion strategies, willingly forgo profits, and sell products at a loss. Any minimal gains from reduced costs are enjoyed more by customers, but superior profitability remains uncaptured. These inefficiencies lead to declining financial results and attrition in the industry with disastrous economic ramifications. Effective competition, particularly within the retail industry, is vital for the very important balance of value shared among the retailer, suppliers, and consumers (Fleacă & Fleacă, 2016). A flexible BPM solution should improve efficiency, sustain competitive advantage, and handle any exceptions effectively, even in the worst economic times (Fleacă & Fleacă, 2016).

Globally, supermarkets have increasingly turned to BPM strategies to improve operational efficiency, enhance profitability, and adapt to market changes. Retail giants such as Walmart and Amazon have successfully leveraged BPM practices to drive customer-centric innovation and streamline existing value chains, which resulted in stronger financial performances from the pair. In the Kenyan context, however, BPM has remained a relatively unexplored strategic lever for financial performance enhancement. Examining whether it is the shield that keeps the Kenyan retail apocalypse at bay was the purpose of this study.

1.1.1 Business Process Management

Davenport (1993) explains a business process as a collection of actions plotted to use inputs to produce output targeted at a consumer. It is how an organization's assets are utilized harmoniously to attain set targets. Viewing the organization through the process lens emphasizes the importance of how work is done. Business processes work horizontally across various functions, and the

burden of success does not fall on one person (Lee & Dale, 1998). Mapping the right business processes allows organizations to quickly discern the right markets and customers, identify ways to address their needs adequately, design a winning business model, and manage value-adding activities appropriately. It enables any venture, regardless of size, to respond quickly to the changing market demands and bring strategy to operational execution through the right activities and tools (Fleacă & Fleacă, 2016).

DeToro and McCabe (1997) put forward a general definition of the variable posing that a company is seen as a set of processes that link workflows. BPM examines and improves foundational processes and other crucial components of a company's operations. The Association of Business Process Management Professionals expounds further that the discipline empowers proponents to identify, establish, design, implement, and track processes to consistently attain set objectives (Association of Business Process Management Professionals, 2019). It aligns processes with the deliberate objectives of the business and the end consumers' needs. This, however, demands that the company change its focus from functional to process orientation (Lee & Dale, 1998). Under a process management structure, those who do the job are both thinkers and executors. They can decide what their work should be, audit outputs, and remodel systems for improvement. They are in charge of meeting customers' needs, reducing turnaround time, reducing costs, and staying consistent. As the workers have a share in the total results beyond their smaller work groups, the focal point is the customer. Businesses that choose to focus on processes reach top standards of performance and work in a more cooperative environment (DeToro & McCabe, 1997).

To identify attributes of BPM in the organizational setting, Badakhshan et al. (2019) developed a framework on how to measure its application and agility. The structure was based on the definition of agility and its use across different disciplines (Conboy, 2009). The study identified three characteristics of agile BPM: flexibility, leanness, and continuity. For the discipline to exemplify flexibility, it must be at the forefront of change, advancing, reacting to, and learning from the developments within and outside the organization. Leanness is achieved when process management contributes to thrift, quality, and simplicity. Continuity is demonstrated by the company's sustained preparation for continuous scouting of trends and continuous alignment with flexibility and leanness (Badakhshan et al., 2019).

Lee and Dale (1998) established three factors that characterize and are imperative to the prosperity of BPM as follows: cross-process integration, process discipline, and process improvement. Process discipline requires careful application of business processes congruently throughout the organization and perpetual monitoring of performance. Process improvement is explained regarding the quality of information acquired about trends, benchmarking with other companies within the industry, and continuous and breakthrough upgrades. Cross-process integration demands that processes are begun and viewed with the end in mind. Any improvement enterprise must be transparent to the end user (Lee & Dale, 1998).

Consequently, this study adopted Lee and Dale's (1998) multidimensional framework, conceptualizing BPM through three distinct but interrelated constructs: process discipline, process improvement, and cross-process integration. Operationalization of these variables was achieved through a structured perception-based approach, where supervisory staff rated the extent of process alignment, standardization, and inter-departmental collaboration within their organizations. Specifically, cross-process integration was measured using a 5-point Likert scale (ranging from 1=Strongly Disagree to 5=Strongly Agree) to quantify the degree to which goals, workflows, and resources are coordinated across functional lines to achieve a seamless flow of value to the customer.

1.1.2 Financial Performance

A company's performance represents existing and developing outcomes of ongoing business processes (Boschken, 1994). The idea of firm performance assessment has, over time, become an area of importance to management teams and business researchers, more so in the 21st century. Despite its pervasiveness in the business arena, literature on the concept has been deemed disappointing, leaving in its wake an ongoing debate on the issue. The definitions for organizational performance provided are said to fail to account for the complications arising, including how sustained advantage is unstable, the complicated nature of performance, and the limitations of using data based on recollection (Boschken, 1994). Taouab and Issor (2019) conducted a study to define organizational performance and identify useful measurement models. The study identified the main facets of firm performance as financial and non-financial and brought

out a clear evolutionary path of its definition. In the traditional context, the primary focus was placed on the financial aspects of performance, that is, the return on investment and cash flows. Changes in the corporate world have led, in recent times, to more focus on non-financial parameters and external demands such as quality, reliability, variety of products, and the importance of innovation (Taouab & Issor, 2019). The focus of this study was financial performance.

The Corporate Finance Institute (Corporate Finance Institute Team, 2022) defines financial performance as a complete evaluation of an organization's orientation in terms of revenue, profit, assets, and liabilities. The degree to which the financial goals of an organization are met is referred to as financial performance. A firm's performance depends on how efficiently it uses its resources to expand and generate more profit. It is used to indicate an organization's progress measured against its strategic plans. Sustained positive performance is therefore affected by stakeholders' perception of a business and its ability to constantly provide value to all those involved in supply chain activities to the endpoint, the customer. It also has a critical implication for national growth; it reflects the economic conditions of a country and, therefore, the strength of an economy (Mwangi & Murigu, 2015).

Financial performance is measured through several indices that allow users to establish findings regarding a company's potential effectiveness (Corporate Finance Institute Team, 2022). It focuses on elements that influence the financial statements of a business, including solvency, profitability, and liquidity (Mwangi & Murigu, 2015). Solvency is measured by a business's ability to pay all its financial obligations upon the sale of all its assets; it measures a company's long-term debt against its assets to determine its financial stability. Liquidity indicates a firm's ability to make necessary payments as they arise. Profitability is a measure of the efficiency with which a firm utilizes its assets to generate revenue that surpasses all expenditures. Profit is considered the principal indicator for measuring the performance of a company; it is a result of deducting expenses from revenue depicted in absolute terms (Mwangi & Murigu, 2015). Businesses that aim for growth focus on methods to increase profit, whose maximization is the main criterion employed in a firm's decisions on expenditure. As such, this paper views performance from the profitability perspective. Determination of financial performance is done through various ratios, such as

profitability and liquidity. In this study, financial performance was investigated through accounting-based measures to determine sales turnover and profitability through Returns on Assets and Investment ratios (Mwangi & Murigu, 2015).

In this study, financial performance was assessed using accounting-based indicators: Sales Turnover, Return on Investment (ROI), and Return on Assets (ROA). These measures are commonly used and reliable, as they are drawn directly from financial records, which are typically available through internal company reports or regulatory filings. They provide objective, quantifiable insights into a firm's revenue generation, asset utilization, and profitability. Sales turnover reflects operational efficiency and customer demand; ROI shows how well investments generate profits; and ROA captures the effectiveness of asset use in driving returns. These metrics align with the conceptual framework and allow for clear, standardized comparisons across firms, making them suitable and practical for this study's objectives.

1.1.3 Supermarkets in Kenya

Retail trade is defined as the sale of goods from a business to a customer for their consumption (State Department for Trade, 2017). As the link between manufacturers and consumers, the industry is an integral part of any economy, making major financial contributions and linking the manufacturer to the consumer. Retail enterprises fall into categories ranging from general stores to specialized retail stores like food and beverage, oil and gas, building materials and hardware, textiles, apparel, and pharmacies. They are grouped into formal and informal retail markets. Informal markets generally comprise small and medium enterprises, ranging from businesses operating in markets and kiosks to street merchants and hawkers. Formal markets include hypermarkets, supermarkets, convenience stores, and specialized stores (Solarmart Consultants Limited, 2012).

Kenya's formal retail penetration is the second highest in Africa, ranked below South Africa (State Department for Trade, 2017). The significance of the retail trade as a key driver for Kenya's economic growth is emphasized in Vision 2030, where the government is driving the rise of the share of goods sold through the formal retail channels to 30% by 2030 (State Department for Trade, 2017). The sector has since grown in leaps and bounds, and supermarkets now contribute between 30% and 40% of total retail trade in the country. This makes the space extremely attractive to deep-

pocketed financiers, evidenced by the rise of new foreign and local investors establishing retail chains in Kenya.

Locally, supermarkets are classified into three distinct tiers, with the criterion applied based on the supply-side distribution channels utilized by the businesses involved (Retail Traders Association of Kenya, 2022). A supermarket business achieves tier 1 status through direct dealings with registered brand owners, either through manufacturing or importation, for the acquisition of at least 80% of their products. Formal agreements about payment terms, marketing plans, supply arrangements, and corporate social responsibility programs are well stipulated in a legal and binding joint business plan (Retail Traders Association of Kenya, 2022). Tier 2 supermarkets are determined as such if the businesses purchase at least 50% of products for sale from manufacturers and importers. Tier 3 supermarkets largely deal with distributors and wholesalers due to the small size and frequency of their purchases, with most agreements being informal and based on business relationships. Out of the 48 registered supermarkets, seven currently fit in Tier 1, 10 in Tier 2, and the rest in Tier 3 classification (Competition Authority of Kenya, 2019).

This long-ailing industry has experienced uncertainties spanning several years with a tumultuous economic history. These sharp changes of fortune have resulted in the collapse of once-major firms like Nakumatt and Uchumi and the exit of other foreign supermarkets like Shoprite and Choppies from the local market (Lawi, 2022). Due to the nature of the Kenya Company Act, financial debts owed by local retailers amounting to billions of shillings were left undetected by the government and the public due to a lack of scrutiny and accountability (Osman & Kenyuru, 2018). Further, international brands found themselves having to build supply chains from scratch and spur the interest of consumers in unfamiliar products, sometimes futilely. The turmoil left a trail of financial ruin, with businesses involved left unable to pay staff, vendors, and various creditors. This situation forced the Government, through the Competition Authority of Kenya, to conduct a market inquiry into the retail sector (State Department for Trade, 2017). Unfair trading practices such as late payments and blatant abuse of buyer power were cited as the main contributing factors to the massive debt. The studies and inquiries all bring out symptoms of the underlying issue, that is, poor management of the activities that go into a business, such as prompt payment of vendors and an inefficient supply chain driven by customer needs.

Tier 1 supermarkets in Nairobi County were selected because they represent the most formal and financially exposed segment of Kenya's retail industry. Over the past decade, major chains such as Nakumatt, Uchumi, and Tuskys collapsed under mounting debts, liquidity crises, and operational inefficiencies (State Department for Trade, 2017). These failures highlight persistent weaknesses in internal processes, particularly in procurement, inventory, and supplier management. Since Tier 1 retailers operate complex, multi-departmental systems, they provide an ideal context for examining how BPM practices—especially process discipline, process improvement, and cross-process integration—can enhance financial performance and sustainability in the sector.

Findings of unscrupulous dealings led to the Competition Authority of Kenya formulating new rules that leveled the playfield for the business parties (State Department for Trade, 2017). Further, the Authority announced the Buyer Power Department and, in collaboration with the Retail Traders Association of Kenya, the Harmonized Retail Trade Code of Practice (Competition Authority of Kenya, 2019; Retail Traders Association of Kenya, 2022). These moves brought a semblance of sanity and an environment for the expansion of and collaboration in the supermarket business. The focus of this study was the 7 tier one supermarkets in the country as they have stores, head offices, and satellite offices within Nairobi County (State Department for Trade, 2017).

1.2 Statement of the Problem

The financial performance of Kenya's supermarket sector has been unstable over the past two decades, with several leading retailers facing operational and financial distress. Between 2006 and 2020, Uchumi, Nakumatt, and Tuskys—once dominant Tier 1 supermarket chains—experienced liquidity crises, supplier debt accumulation, and eventual collapse (State Department for Trade, 2017). Empirical studies attribute such failures to weak operational processes, poor governance, and limited strategic alignment rather than to market demand alone (Njoroge, 2014; Kihara, 2016). Similar trends have been observed globally, such as in the United States during the “Retail Apocalypse” of 2017, where thousands of stores closed due to inefficiencies in supply chains and poor process adaptation to technological shifts (Thompson, 2017).

Despite these challenges, emerging retailers like Naivas and Carrefour have demonstrated relatively stronger financial performance, suggesting that effective internal process management

may be a key differentiator. Studies show that organizations with well-structured BPM systems experience greater operational efficiency and financial stability (Hung, 2006; Van Looy et al., 2011; Mamoghli et al., 2018). However, in the African context, most research has focused on governance and financial controls (Seymour & Grisdale, 2011) with limited empirical examination of how process-related factors influence financial performance.

This lack of focus has resulted in conceptual, methodological, and contextual gaps.

Conceptually, there is insufficient understanding of how Business Process Management dimensions—process discipline, process improvement, and cross-process integration—translate into measurable financial outcomes. Methodologically, few studies have applied quantitative designs to test these relationships using statistical models. Contextually, no study has specifically examined Tier 1 supermarkets in Nairobi County, a segment critical to Kenya’s retail economy. This study, therefore, sought to fill these gaps by empirically investigating the effect of BPM on the financial performance of Tier 1 supermarket chains in Nairobi County.

1.3 Research Objectives

This section presents the general and specific objectives of the study.

1.3.1 General objective

The aim was to determine the effect of BPM on the financial performance of tier 1 supermarkets in Nairobi County.

1.3.2 Specific objectives

- i. To determine the effect of process discipline on the financial performance of Tier 1 supermarkets in Nairobi County.
- ii. To determine the effect of process improvement on the financial performance of Tier 1 supermarkets in Nairobi County.
- iii. To determine the effect of cross-process integration on the financial performance of Tier 1 supermarkets in Nairobi County.

1.3.3 Research questions

Consequently, these questions were considered:

- i. What is the effect of process discipline on the financial performance of Tier 1 supermarkets in Nairobi County?
- ii. What is the effect of process improvement on the financial performance of Tier 1 supermarkets in Nairobi County?
- iii. What is the effect of cross-process integration on the financial performance of Tier 1 supermarkets in Nairobi County?

1.4 Scope of the study

The study reported on the effect of BPM on the financial performance of supermarkets in Nairobi County. The research's scope was limited to 7 supermarkets that are considered tier 1 (Retail Traders Association of Kenya, 2022). The study focused on these tier 1 supermarkets as they are a representation of both local and international standard operating procedures. They also have stores, headquarters, or satellite offices in Nairobi, enabling ease of access to employees. The study sought to investigate the impact of business process discipline, process discipline, and cross-process integration on the financial performance of their businesses. The timeline of the study was between July and December 2025.

Data was gathered between July and September 2025 through structured questionnaires issued to supervisory-level staff. BPM was measured using three constructs: process discipline, process improvement, and cross-process integration, while financial performance was assessed using sales turnover, return on assets, and return on investment. The study employed a descriptive cross-sectional design targeting a population of Tier 1 supermarkets headquartered or operating within Nairobi County. A purposive sample of 105 respondents was selected from key departments—Finance, Procurement, Information Technology, Marketing, and Human Resources management.

1.5 Significance of the study

This study was significant because it addressed theoretical, methodological, practical, and policy gaps identified in existing literature. Theoretically, it extended the model developed by Lee and Dale (1998) by linking specific BPM dimensions—process discipline, process improvement, and cross-process integration—to financial performance, thereby enhancing understanding of how process management contributes to organizational outcomes. Methodologically, it went beyond the largely qualitative approaches of earlier African retail studies (Seymour & Grisdale, 2011;

Njoroge, 2014) by employing quantitative analysis using correlation and regression techniques, thus providing empirical evidence on the measurable influence of BPM on financial indicators. Practically, the study offers supermarket management teams actionable insights into which BPM practices most strongly impact financial outcomes, enabling them to refine workflows, strengthen supplier relationships, and improve efficiency in ways that directly enhance sales turnover, return on assets, and return on investment. From a policy perspective, the findings are useful to regulatory bodies such as the Competition Authority of Kenya and the Retail Traders Association of Kenya, providing evidence to guide the development of frameworks that promote fair practices, efficient workflows, and sustainable competitiveness in the retail sector.

1.6 Chapter Summary

The focus was on the variables, elaborating different definitions and theories around them. It discusses the general and specific objectives of the study. In addition, it provides details on the statement of the problem and the significance of the industry in which the research was carried out.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Presented herein is an overview of the literature concerned with themes of the inquiry. It covers the theoretical review, empirical review, and identifies research gaps. The chapter also depicts a conceptual framework and a summary of the study chapter.

2.2 Theoretical Review

This study was anchored on two key theories: Dynamic Capabilities Theory and Value Chain Model. The Dynamic Capabilities Theory (Teece et al., 1997) emphasizes a firm's ability to adapt, innovate, and reconfigure resources and processes in response to changing environments, supporting the study's focus on continuous process improvement and performance. It highlights how businesses can evolve and sustain competitive advantage through ongoing transformation of their capabilities. In contrast, the Value Chain Theory (Porter, 1985) examines sequential business activities that add value, from raw materials to the final consumer, underscoring the need to optimize both primary and support functions for efficiency and value creation. While Value Chain Theory provides a framework for analyzing and improving processes, Dynamic Capabilities Theory anchors performance by stressing adaptability, innovation, and alignment of processes with market shifts for long-term success.

2.2.1 Value Chain Model

Every product and service moves through a sequence of activities from concept, production, and distribution to consumption and eventual disposal, with each stage presumed to add value (Zamora, 2016). Porter (1985) introduced the Value Chain Model to show that competitive advantage arises when the value created exceeds the cost of activities. He categorized business activities into primary functions—operations, logistics, sales, and service—and support functions such as procurement, technology development, human resource management, and infrastructure. Together, these activities reflect a firm's strategy, implementation, and economic choices.

Although some scholars argue the model is outdated and manufacturing-oriented (Merchant, 2012; Simister, 2020), it remains useful for breaking down any business into parts to identify inefficiencies and bottlenecks. This was particularly relevant for supermarkets, where process

discipline and improvement directly impact performance. Value addition implies both value creation and value capture (Fleacă & Fleacă, 2016), making a firm's position in the value chain critical for sustaining advantage.

Value chain analysis further enables mapping of participants, costs, and benefits across the chain, highlighting how linkages affect overall performance (Zamora, 2016). Porter (1985) emphasized its role in converting inputs into outputs while integrating operating processes and management processes (Coners, 2015). In the context of this study, value chain processes were seen as drivers of financial performance and customer satisfaction, facilitating standardization of information, finance, and product flows. As part of BPM, value chain analysis helps governance teams understand structures, streamline operations, and identify solutions aligned with financial goals (Fleacă & Fleacă, 2016).

2.2.2 Dynamic Capabilities Theory

The Dynamic Capabilities Theory, advanced by Teece et al. (1997), emphasizes a firm's ability to integrate, build, and reconfigure internal and external resources to respond effectively to rapidly changing environments. Unlike the traditional resource-based view, which focuses on the possession of valuable resources, this theory highlights the capacity to adapt and renew resources as the true source of sustained competitive advantage. Dynamic capabilities involve three core processes: sensing opportunities and threats, seizing opportunities through investments and new business models, and transforming or reconfiguring existing assets to maintain alignment with shifting market demands (Teece, 2007).

This perspective is especially relevant to the retail sector, where firms operate in environments characterized by frequent disruptions such as changing consumer preferences, economic shocks, and technological advances. Supermarkets that can adapt operations, innovate processes, and reconfigure their supply chains are more likely to sustain profitability and market relevance.

In relation to this study, the theory directly anchors the BPM dimensions of process discipline, process improvement, and cross-process integration. Process discipline ensures stability in routine operations, process improvement drives innovation and efficiency, while cross-process integration enables seamless coordination across functions. Together, these capabilities enhance agility, allowing supermarkets to reconfigure workflows and resources to meet customer needs and

respond to competitive pressures. Thus, Dynamic Capabilities Theory provides the foundation for linking BPM practices with financial outcomes such as sales turnover, return on assets, and return on investment, particularly in the volatile Kenyan retail context.

2.3 Empirical review

Globally, Hung (2006) examined BPM maturity and organizational performance among Taiwanese manufacturing firms using a survey and regression analysis. The study found that standardized and continuously improved processes significantly enhance efficiency and profitability. Similarly, Lee and Dale (1998), in a study of British companies, concluded that structured BPM frameworks lead to improved productivity and financial outcomes through effective process coordination. Van Looy et al. (2011) further confirmed this in a cross-sectional study of 245 European organizations, finding a strong positive link between BPM practices and both operational and financial performance.

Regionally, Seymour and Grisdale (2011) analyzed process management in South African retail firms using a qualitative case study approach and found that weak process integration and limited process orientation constrained scalability and performance. Fleacă and Fleacă (2016), studying Romanian enterprises through value chain analysis, also demonstrated that BPM enhances cost control and value creation, directly improving profitability.

Locally, Njoroge (2014) found that weak inventory control, supplier management, and internal processes contributed to the collapse of Kenyan supermarket chains. Similarly, Kihara (2016) established that structured operational processes among SMEs improved overall performance. However, these studies largely focused on governance and strategy rather than empirically examining BPM dimensions and their direct link to financial outcomes.

Overall, prior evidence supports a positive association between BPM and firm performance but reveals contextual and methodological gaps in large-scale retail settings. This study addressed these gaps by empirically testing the effect of process discipline, process improvement, and cross-process integration on the financial performance of Tier 1 supermarkets in Nairobi County.

2.3.1 Process Discipline and Financial Performance

Process discipline denotes the gravity of authority and control over a process, enforced through training and compliance orders. The success of any repetitive business activity begins with learning the nuances of the activity, identifying best practices, adhering strictly to the set practices, monitoring, and controlling (Lee & Dale, 1998). Business processes create products and services that are demanded by the end users; therefore, poor process discipline can have consequences such as negative customer experience, which could translate to financial non-performance (Fleacă & Fleacă, 2016). Firms, therefore, have the difficult task of making processes the base for strategic planning and organizational structure. This then leads organizations to create a structured and systematic methodology whose purpose is to carry out the implementation in an organized and controlled manner. Lee and Dale (1998) put forth that for BPM projects to achieve a favorable outcome, business processes must be applied correctly and consistently across the organization, and performance must be continuously monitored. It is imperative for the firm that processes are delivered within the designed specifications in a managed way.

Tech is now commonplace in business. Management research into the impact of technological improvement in fostering innovation within the organization is therefore on the rise (Al-Mashari & Zairi, 1999). Giudice (2016) conducted a study to understand how the Internet of Things advances forward revolution within firms, its impact on process management, and the ability to compete. It offers a systematic literature review on the matter, presenting a qualitative approach to the research into technological fortification of firms through the Internet of Things. The study shows that there was a rise in the technical contributions using the Internet of Things and an evolution of learning application processes. Furthermore, the ease of installation, use, and servicing allows it to offer value for BPM in any industry (Giudice, 2016). It denotes a progressively increasing application of the concept in business to further revitalize technology. The paper does not explicitly indicate how technological applications in BPM endeavors lead to improved financial performance, which was the purpose of this research study.

Practitioners are showing increasing interest in BPM, and in tandem, many organizations are seeking to further optimize their espousal of the practice. Van Looy (2019) conducted a study that

sought to advance and authenticate an instrument that measures and manages process-centric capabilities. The research was performed using a high standard and multistage procedure, involving practitioners across 4 continents- Europe, Asia, North America, and Oceania- with the application of PLS-SEM. The study provided a reliable tool that could measure a firm's capability to manage its business processes. It identified 4 main areas of capabilities useful to the management of processes. The areas of capability were reported to cover the field and apply to different processes and business contexts. The study did not measure the impact that these measurement tools and strategies have on financial performance, which was the focus of this research paper.

Eldridge et al. (2013) explored a firm's use of controlled processes while operating in uncertainty. The research was exploratory, and it applied the Simons' levers of control model (Simons, 1994) within the context of a technology start-up company based in Europe. The findings suggested that organizations generally counter situations of uncertainty using an amalgam of formal and informal control systems applied to their business processes. A detailed examination of the manifestation of the influence of control systems across the firm was, however, beyond the paper. This research attempts to bridge this knowledge gap in the retail sector.

Kyunguti and Makau (2014) offered managerial guidance on the application of process management systems in Kenyan tour operating companies. They conducted a study targeting 104 tour operators listed under the marketing umbrella, the Kenya Association of Tour Operators. Descriptive research was adopted, and data were collected through questionnaires administered to firm staff. The study concluded that despite the advantages that BPM offers to operational efficiency, firms failed to implement the necessary changes either partially or entirely. The biggest challenge faced was the discipline of the people involved in the implementation process, coupled with a lack of top management support and the historical failure of any IT-related changes applied in the businesses. The researchers put forth recommendations for effective application of process management systems, focusing on staff training, proper change management, and top management involvement. The study did not link process management systems and practices to financial performance, which was documented in this paper

2.3.2 Process Improvement and Financial Performance

Lee and Dale (1998) define process improvement as a systematic approach to closing performance gaps through incremental and breakthrough enhancements in processes that lead to measurable improvements in quality, efficiency, and customer satisfaction. The approach and its application are expected to advance and develop the capacity of business processes that yield value for internal and external stakeholders. Business process improvement programs are applied to firms seeking to revamp their daily operations. In an endeavor to stay ahead of the evolving business landscape, firms are forced to make innovative and technological enhancements to their internal processes. Firms need to constantly ensure that their improvement efforts measure up to industry expectations and to identify new opportunities to improve. This requires that businesses continuously benchmark against other organizations within the industry. The study further magnified that the customer's perspective should be the beginning of all business processes, making all improvement measures visible to the customer. The quality of information that they acquire to take action to improve their processes from within the organization, in relation to competitor activities, and from customer feedback should therefore be critically considered.

Trkman et al. (2015) sought to argue that customer centricity in BPM requires a deep understanding of customer processes, or customer process management as their paper coined. The research involved a study of Hamapol Global Services, a multinational company, with particular focus on the Northern European region. The research team proposed improvements to the company's approach to interaction with customers and the processes involved to be implemented systematically. Data was gathered before, during, and after the implementation of the presented approach. Various methods were applied in the research methodology, including interviews with stakeholders, which culminated in a qualitative analysis of interview responses. The approach was identified by the research team and employed successfully by the firm, which comprised merging BPM and the customer. However, the study does not examine the long-term effects of extending these efforts on customer loyalty and organizational performance.

Brinch (2018) identified that big data in the supply chain was not well understood. He undertook a study to mitigate the little comprehension of the facet's value. Material collection involved

identifying literature on the subjects. The study was conducted through content analysis, applying an inductive test on articles. It inferred data can help in the comprehension of the business environments in which they operate at a more fragmented state, allowing companies to redefine their businesses and gain a competitive advantage. The study found that different dimensions bring a multisided view of realizing true benefits. It offers a framework and constructs to further elucidate the conceptualization of big data. However, the constructs and measures do not have enough empirical evidence to support their application, and there's no indication of the information acquired on the performance of firms.

Shuaib and Inusa (2020) investigated Total Quality Management on the performance of Nigerian banks. 13 commercial banks were considered in the study, and it utilized questionnaires for the collection of data and the scientific analysis undertaken through ordinary least squares regression. A positive relationship existed between the two parts. Innovation capability was identified to influence the performance of the commercial banks. In addition, poor capacity to respond to customer complaints and inferior service delivery were factors that proved calamitous to bank performance. The inference is, however, indeterminate as they failed to identify how efforts to benchmark against other companies within the industry and their total quality management efforts can influence the performance of individual organizations. This paper attempted to link benchmarking as a factor of process to the performance of the supermarket chains.

Aden (2016) did a study on process improvement practices and operational efficiency of microfinance institutions. The design applied was descriptive. It targeted microfinance institutions under the membership of the Association of Microfinance Institutions and registered with the Central Bank of Kenya. A questionnaire was developed and utilized for data collection, while multiple regressions were applied to examine the correlation. It identifies the markers of business process improvement as realignment of strategy, adopting technology, organizational restructuring, and the development of employees. It was found that the variables indeed have a direct and positive effect on operational efficiency, with employee empowerment being the least impactful. The study context was microfinance institutions, which are outside the focus of this research, which was supermarket businesses in Nairobi County.

2.3.3 Cross-process integration and financial performance

BPM applies a comprehensive view of business and endeavors to bridge the disjointed improvements in single units of business processes that result in subpar solutions. Cross-process integration appraises the relationship between people, strategy, systems, and processes across the business to achieve goals. DeToro and McCabe (1997) highlighted that the approach presents all-inclusive improvement options that can be applied throughout the organization. The genesis of any improvement process sits at the highest level of leadership, and how far an organization involves its employees in managing its processes is critical to successful implementation. The organizational structure must outline the responsibilities of departments and draw a connection between various organizational elements to coordinate them in a coherent whole (DeToro & McCabe, 1997). When an organization adopts BPM, it should recognize that the potential impact is firm-wide.

Badakhshan et al. (2019) did a descriptive study assessing agility in processes. It was done to identify the factors that demonstrate how business processes align with the external environment. The data was collected through a systematic literature review of 30 papers on agility in process management acquired from various databases. It was found that the following components define agility in BPM: continual readiness, flexibility, and leanness. The study proposed that agile BPM integrates the use of information technology in its approach, and that management should be organized around the technology. This allows businesses to implement necessary changes in line with the environment and continuously monitor them to evaluate process performance. Further, agility fosters better collaboration, knowledge sharing, and participation. It is not explicitly stated how alignment within and across the company impacts the success of an enterprise, which this study clarified.

Pimenta et al. (2016) commenced a study with the purpose of characterizing the interdependence between the processes of marketing and logistics. The data collection process comprised a literature review, engaging managers from companies in five different industries in Brazil. The study proposed a framework that shows the organizations as a flow of processes from one to the next, indicating the interdependencies between and among them, instead of analyzing disconnected parts. The process perspective clearly outlines the various roles, how they relate to each other, and

the positive effect of proper integration within firms. The results denoted that the level of formality of the process has a level of influence in the Brazilian culture. The nature of the data collected does not leave room to seek parity in other geographical locations; therefore, the implications cannot be applied outside of the context of the study.

Successful resource allotment for the proper execution of business-related activities impacts process execution and related results. The allocation of human resources is emerging as a particularly material issue in processes. Arias et al. (2018) acknowledged the correct placement of the correct people within the context of BPM due to its effect on process execution, cost, and efficiency of resource use during execution. As such, they conducted a study focusing on the interaction of resources during process execution. A systematic literature review and a systematic mapping study of 90 papers published between January 2005 and January 2016 were conducted to classify proposed approaches to the allocation of human resources and the possible influence on BPM. What emerged was an evolving trend of research into human resource allocation and BPM over time, and the creation of fresh proposals applicable to real-life situations, further validating the premise (Arias et al., 2018). It found the research identified methods to make resource allocation more efficient in the enhancement of decision making and allocation of human resources. However, the study did not directly address the effect that proper human resource management and allocation through the execution of business processes should have on the financial performance of organizations, a gap that this paper attempted to bridge.

Mamoghli et al. (2018) provide a useful socio-technical contribution by developing a maturity model that contrasts two development paths—deepening technology capability versus strengthening human–technology cohesion—and by highlighting the interdependence of technological and employee factors in achieving process excellence. However, the study’s design-science orientation, while appropriate for artifact creation, offers limited empirical validation: the maturity model is conceptually persuasive but is not tested against objective performance outcomes, reducing its ability to support causal claims. The empirical base is further constrained by a small sample of SMEs, raising concerns about external validity and transferability to large, modern-trade supermarket chains where processes, scale, and supplier networks differ materially. Measurement issues are also evident: the paper emphasizes capability and cohesion qualitatively

but provides limited information on how technology maturity or human–system alignment were operationalized and measured, which complicates replication and quantitative testing. In addition, the absence of longitudinal or comparative data means the model’s predictive power for sustained financial performance remains unproven. In short, Mamoghli et al. (2018) made a valuable conceptual case for socio-technical interdependence in BPM but left open empirical questions about measurement, generalizability, and the direct link to financial outcomes—gaps this study addressed by quantitatively measuring BPM dimensions (process discipline, process improvement, cross-process integration) and testing their effects on objective financial indicators in Tier-1 supermarkets.

2.4 Research Gaps

From the various studies, it is clear that the business environment keeps changing, and BPM practices are put in place to ensure the organization survives and performs positively. The components of BPM, as stated, are process discipline, process improvement, and cross-process integration. Research has been carried out in various contexts, but there are limited studies on how these constituents change performance.

Previous studies reveal several gaps in linking business process practices to financial performance. These include contextual gaps, where the impact on financial outcomes was not explored, theoretical gaps that fail to connect concepts like TQM or IoT to financial metrics, and methodological gaps from reliance on qualitative data without empirical evidence. Empirical gaps are seen in studies proposing benefits, like big data, but lacking financial validation. Additionally, knowledge gaps exist due to a limited geographical scope. These gaps highlight the need for empirical studies connecting process management directly to financial performance.

Table 2.1: Research gaps

Authors	Research topic	Research findings	Methodology	Research gaps
Eldridge, Van Iwaarden, Van der Wiele, Williams (2013)	Management control systems for business processes in uncertain environments environments.	Firms deal with uncertainty by applying control systems to business processes.	The case study method was applied.	Contextual gap- the study did not explicitly investigate the impact of these control measures on the financial performance of firms.
Van Looy (2019)	Capabilities for managing business processes: a measurement instrument.	Instruments that measure process-centric capabilities apply to different processes and contexts.	PLS-SEM method was applied.	Contextual gap- the study did not measure the impact that measurement strategies have on financial performance.
Giudice (2016)	Discovering the Internet of Things within business process management.	IoT has led to an increase in technical contributions in the business process management field and revitalization of technology.	A systematic literature review was applied.	Theoretical gap- the study did not link the application of technology in business process management to financial performance.
Shuaib and Inusa (2020)	Effect of Total Quality Management and innovation on bank performance: the moderating role of capital strength among the listed commercial banks in Nigeria.	The study found a positive but insignificant relationship between TQM and bank performance.	The field survey method was applied.	Theoretical gap- the study failed to link benchmarking against industry TQM standards to financial performance.

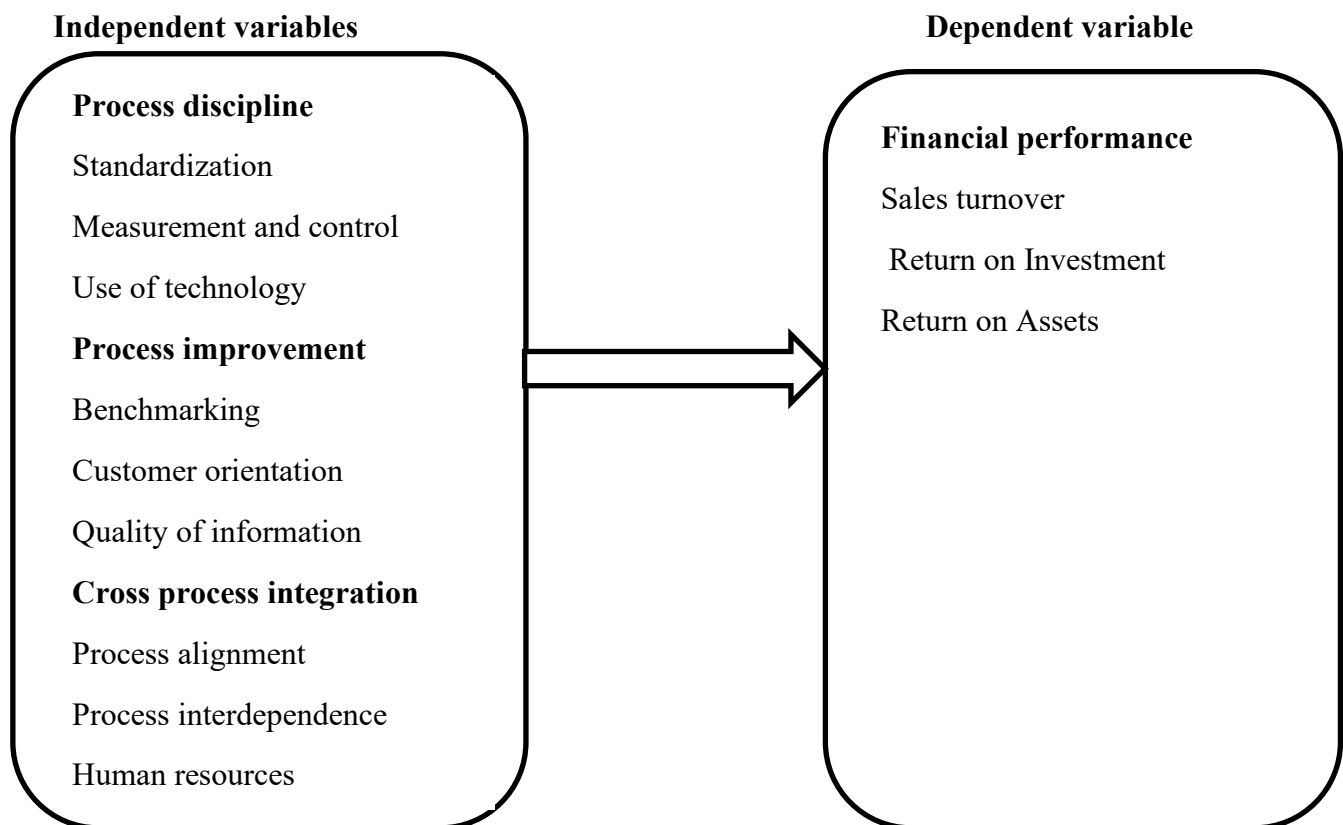
Brinch (2018)	Understanding the value of the big data supply chain and its business processes.	The study found that big data can be applied in different facets. Realize the benefits of supply chain and process management.	A content analysis-based literature review was applied.	Empirical gap- the study lacked empirical evidence to support its application; therefore use of big data cannot be linked to financial performance.
Trkman, Mertens, Viaene, Gemmel (2015)	From business process management to customer process management.	The approach developed by the research team, which involved the combination of business process management and customer internal processes, was successfully applied by the case organizations.	A qualitative analysis of responses to interview questions was applied.	Methodological gap- the paper does not evaluate the longer-term effects of customer orientation on organizational financial performance.
Badakhshan, Conboy, Grisold, vom Brocke (2019)	Agile business process management.	Agile business process management integrates the use of technology, enabling the implementation of changes and fostering collaboration.	A systematic literature review was applied.	Contextual gap- the study does not state how alignment impacts enterprise success.
Pimenta, da Silva, Tate (2016)	Characteristics of cross-functional integration processes.	The study presents the organization in a process view and the positive effect of proper integration of processes within it.	A systematic literature review was applied.	Knowledge gap- the scope was limited to a single geographical region, and the implications may not be applicable across different regions.

Source: The Researcher (2025)

2.5 Conceptual framework

The following details the relationship between the success factors of process management and financial performance. Business process management was measured in terms of process discipline, process improvement, and cross-process integration. Financial performance was examined through sales and profitability.

Figure 2.1: Conceptual framework



Source: The Researcher (2025)

Cross-process integration is a crucial dimension of BPM that ensures all functional areas within the organization work harmoniously toward a common objective. It specifically addresses the boundary-spanning nature of processes, demanding that they are designed and executed with the outcome and end-user visibility in mind (Lee & Dale, 1998). For this study, cross-process integration was measured through several key indicators, including the degree of goal alignment

across departments, the existence of seamless workflows between functional units, the effectiveness of inter-departmental collaboration during process execution, and the proper resource allocation in support of cross-functional processes. These elements collectively quantify the organization's ability to coordinate efforts and minimize hand-offs across functional lines to deliver value

2.6 Operationalization of study variables

It is the specification of observations that strive to empirically capture an abstract concept, defining study variables in measurable terms. A rating scale was used. It ranges from 1= strongly disagree to 5= strongly agree was applied to measure the variables. Indicators used are summarized.

Table 2.2: Operationalization of variables

Variable	Constructs	Operational definition	Measurement scale	source
Independent variable (Business process management)	Process discipline	It is the gravity of authority and control over a process, enforced through training and compliance orders.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree	Lee and Dale (1998)
	Process improvement	The advancement and development of business process capacity to yield value for internal and external stakeholders.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree	Lee and Dale (1998)
	Cross-process integration	Holistic view of addressing the role of planning, people, and tech across the business to achieve goals.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral	Lee and Dale (1998)

			4-agree 5-strongly agree	
Dependent variable (Financial performance)	Sales turnover	The value of sales by a business over a period of time.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree	Mwangi and Murigu (2015)
	Return on Assets	Shows how profitable a firm is in relation to its assets.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree	Mwangi and Murigu (2015)
	Return on Investment	The profitability of a business is in relation to investments.	5-point Likert scale 1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree	Mwangi and Murigu (2015)

Source: The Researcher (2025)

2.7 Chapter Summary

Discussed herein are the theories on which the study was engaged and the empirical studies carried out by scholars on BPM and financial performance. The research gaps identified from previous studies were encapsulated. Further, the conceptual framework was drawn, outlining the relationship.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Highlighted are the methods applicable to gain information about the research study. It encapsulates the design, the target population, the instruments used, data collection, and data analysis methods.

3.2 Research Philosophy

Research is steered by the investigator's own perspective and approach to the study at hand. Research philosophy is the building of assumptions, knowledge, and its nature (Saunders et al., 2015). Assumptions are precursory statements of reasoning rationalized based on insights (Žukauskas et al., 2018). Research in social sciences is mainly underpinned by 2 main philosophies: positivism and interpretivism. Positivist research philosophy proffers that objectivity is possible in the comprehension of the social world. The theory claims that the scientist is purely an observer and should work independently of personal opinions and values. Measurement is based on facts, neutrality, and endeavors to gain prognostic knowledge by the establishment of causality. Research begins from theory, and quantitative data collected was analyzed through various statistical methods to generate results to falsify the theory. The opposite is true of interpretivism. The theory offers that knowledge is a social construct, and reality is subjective rather than objective (Saunders et al., 2015). Interpretivist philosophy is contingent on the idea that a researcher observing the social world plays a particular role, and their study was wholly dependent on their interests. It therefore acknowledges the variety of interpretations of reality and experiences in the social world (Žukauskas et al., 2018). Observation and interviews are popular data collection methods, which makes the data susceptible to the influence of personal viewpoints and values, enabling qualitative research.

This study adopted a positivist research philosophy. The paradigm asserts focus on factual social data collection, personal attitudes, and impressions notwithstanding (Žukauskas et al., 2018). Using this philosophical approach, theory was applied to derive a hypothesis for objective

assessment during the research process. Findings from the positivistic research study are statistically quantifiable (Saunders et al., 2015).

3.3 Research Design

According to Creswell (2009), a research design is a structure that provides techniques for conducting research, helping the investigator answer research questions and test hypotheses. For this study, a descriptive cross-sectional design was adopted. This approach was appropriate because the descriptive component focuses on detailing the who, what, when, and where of the study variables, which in this case involved characterizing the BPM practices (process discipline, process improvement, and cross-process integration) and the financial performance indicators (sales turnover, return on assets, and return on investment) of Tier 1 supermarkets.

Furthermore, the cross-sectional design was relevant because it allows the researcher to obtain data from a defined population at a single point in time. This method made it possible to gather perceptions and practices simultaneously across multiple Tier 1 supermarket chains within Nairobi County during the period of July to December 2025. This design supported the study's objectives by providing a snapshot of the relationships between BPM practices and financial outcomes, enabling the identification of significant variable associations.

3.4 Population of the Study

It includes the elements of interest to a researcher that they examined to generate data for analysis and come up with conclusions for a study (Ingram & Schneider, 1991). These elements share the desired characteristics necessary for their participation in the study and can be used to generate meaningful inferences about the subject matter (Ingram & Schneider, 1991). There are currently 7 recognized modern trade retail chains in Kenya (Retail Traders Association of Kenya, 2022). The target population for this study comprised supervisory-level employees working in the core operational departments —Finance, Procurement, Information Technology, Marketing, and Human Resources management— of selected Tier 1 supermarket chains located in Nairobi County. This group was selected because supervisory employees possess direct operational knowledge of business processes and are actively involved in implementing, monitoring, and evaluating process management practices within their respective departments. They serve as a

critical link between top management and frontline staff, making them well-positioned to provide accurate insights into how process discipline, process improvement, and cross-process integration influence the financial performance of their organizations.

3.5 Sampling Design

The study employed a purposive sampling design, which was scientifically appropriate for selecting respondents with specific knowledge relevant to the research objectives. As Creswell (2014) notes, purposive sampling enables the deliberate inclusion of individuals best positioned to provide accurate and insightful information. The target respondents were supervisory-level employees from key operational departments — Finance, Procurement, Information Technology, Marketing, and Human Resources management— within Tier 1 supermarket chains in Nairobi County. These participants were chosen because they are directly involved in implementing and monitoring BPM practices that influence financial performance.

3.6 Data Collection

Primary data was collected using a structured questionnaire designed to capture information on the key study variables: process discipline, process improvement, cross-process integration, and financial performance. The questionnaire comprised close-ended statements measured on a five-point Likert scale, ranging from “strongly disagree” to “strongly agree.” This design enabled quantification of respondents’ perceptions and experiences, facilitating statistical analysis of relationships between BPM practices and financial outcomes. The items were developed based on validated instruments from prior BPM and performance studies, including Lee and Dale (1998), Hung (2006), and Van Looy et al. (2011), ensuring content validity and theoretical alignment.

Data collection was carried out between July and September 2025. Questionnaires were distributed physically and electronically, depending on each supermarket’s operational preference, with follow-up reminders issued to maximize response rates. Respondents were briefed on the purpose of the study, assured of confidentiality, and requested to provide honest responses. Participation was voluntary, and ethical standards were maintained throughout.

3.7 Data Analysis

Data analysis encompasses the employment of tools to transform data into useful information (Schindler, 2022). The data was cleaned and coded before uploading to SPSS. The Statistical Package for Social Science (SPSS) was utilized for analysis using descriptive and inferential statistics. Mean and standard deviation make up descriptive statistics. Correlation analysis was applied to determine the strength, nature, and direction of the linear relationship between the three independent variables (Process Discipline, Process Improvement, and Cross-Process Integration) and the dependent financial performance variables. Regression analysis was utilized to establish the relationship between them.

The variables whose relationship was being investigated are BPM and financial performance. The relationship model was hypothesized as $Y = \beta_0 + \beta_1 X + \varepsilon$, where β_0 and β_1 are model parameters and ε was a probabilistic error term accounting for variability in Y that was unexplainable by the linear relationship with X (Schindler, 2022). The independent variable, BPM, was regressed against the dependent variable of financial performance. See equation below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon.$$

Whereby

Y = Financial performance

X₁ = Process discipline

X₂ = Process improvement

X₃ = Cross process integration

$\beta_1, \beta_2, \beta_3$, and β_0 = Coefficients of determination of the value of Y.

β_0 = constant

ε = error term.

3.8 Research Quality

Here is an outline of the reliability and validity tests.

3.8.1 Validity Test

Validity is the degree to which data conforms to what it measures (Schindler, 2022). To test content validity, the questionnaire was presented to the study supervisor to seek guidance and make certain that it adequately measures the variables. Construct validity was evaluated through the derivation of study variables from proper related literature. For the pilot study, a sample questionnaire was given to respondents in similar departments in 2 supermarkets outside of the selected final population- Magunas and Powerstar- to establish its pertinence and clarity. This allowed for the elimination of any unclear or irrelevant items to raise the study's validity.

3.8.2 Reliability Test

Reliability of instruments is the level of consistency in scores from one administration to the next (Schindler, 2022). In social science research, Cronbach's alpha coefficient is thought of as a substantial measure of reliability. Kerlinger and Lee (2000) advance rules for the Cronbach's alpha test as follows: $\alpha > .9$ – Excellent, $\alpha > .8$ – Good, $\alpha > .7$ – Acceptable, $\alpha > .6$ – Questionable, $\alpha > .5$ – Poor, $\alpha < .5$ – Unacceptable. It is considered satisfactory if it ranges between 0.7 and 0.9 (Schindler, 2022). Consistent results indicate the strength of the research instrument applied (Kerlinger & Lee, 2000). Bagozzi and Yi (2012) opine that a Cronbach alpha value of 0.5 is considered reliable, while Sekaran and Bougie (2016) point out that a value above 0.7 for each construct indicates consistency in the research instrument. The threshold of satisfactory reliability in this study is 0.7 or higher, as recommended by Sekaran and Bougie (2016). The findings meet the minimum threshold of 0.7.

Table 3.1: Summary of Reliability Results for the Study

Variable	Cronbach's Alpha	Interpretation
process discipline	0.821	Reliable
process improvement	0.850	Reliable
cross-process integration	0.788	Reliable
financial performance	0.850	Reliable

Source: The Researcher (2025)

3.9 Ethical Considerations

Ethics preside over the comportment of researchers in their activities. Ethical principles should be adhered to in all research involving human beings (World Health Organization, 2022). These considerations are required in order to protect the dignity of the targeted population, thus setting limitations in the choices one can make in the pursuit of information (World Health Organization, 2022). The respondents' participation in the questionnaire was voluntary and confidential to eliminate any foreseeable ethical concerns with the study. Participants were duly briefed on the motive behind the research for their consent, and discretions were be assured. The undertaking was guided by Strathmore University's code of ethics. In addition, ethics approval and a permit from NACOSTI were obtained. The study also gives full acknowledgment of all published and unpublished material used to write this thesis. Ethical approval was obtained from the Ethics Review Committee (ERC) of Strathmore University. Confidentiality was ensured by anonymizing responses and securely storing all data, accessible only to the research team.

3.10 Chapter Summary

Covered within the chapter are the research design, population of the study, sampling design, data collection, and analysis methods. In addition, it included the validity test, reliability test, and ethical consideration.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents data analysis as well as the interpretations of the findings. It encompasses the response rate, pilot test results, and general information about the respondents. In addition, the chapter comprises descriptive and inferential statistics as per the study objective. The general objective of the study was to determine the effect of business process management on the financial performance of supermarkets in Nairobi County.

4.2 Response Rate

The sample size of the study was 105 respondents, comprising heads of Finance, Procurement, Information Technology, Marketing, and Human Resource Management in 7 supermarket chains in Nairobi County, Kenya. The questionnaires were dropped off and picked up later after they were filled out by the respondents. Out of 105 questionnaires that were distributed, 98 were duly filled out and returned. The drop-off and pick-up-later method yielded a high response rate of 93.3%. According to Babbie (2017), a response rate of 75 per cent is adequate for analysis as well as making conclusions and inferences about a population. In addition, Kumar (2019) indicates that a response rate of 60% and above is acceptable for analysis. This implies that the response rate of 93.3% was adequate for analysis, concluding, and reporting. This is depicted in Table 4.1 below.

Table 4.1: Response rate

Category	Frequency	Percentage
Returned questionnaires	98	93.3%
Not returned questionnaires	7	6.7%
Total	105	100%

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	45	56.3
	Female	35	43.7
Age Bracket (Years)	18–25	10	12.5
	26–35	30	37.5
	36–45	25	31.3
	46 and above	15	18.7
Length of Service (Years)	Less than 1 year	5	6.3
	1–5 years	40	50.0
	6–10 years	25	31.3
	Above 10 years	10	12.4
Highest Education Level	Diploma	20	25.0
	Bachelor’s Degree	45	56.3
	Postgraduate Degree (Master’s and above)	15	18.7
Total Respondents		80	100.0

Source: The Researcher (2025)

The results in Table 4.1 show that the majority of respondents were male (56.3%), while females accounted for 43.7%. This near-balanced distribution indicates that both genders are fairly represented in the supermarket sector at supervisory levels, though men still slightly dominate in managerial and operational oversight roles. This finding reflects the gender dynamics of Kenya’s formal retail sector, where managerial positions remain somewhat male-oriented despite increasing participation of women in recent years. A balanced gender representation among respondents enhances the validity of the study, as it ensures that the perceptions captured reflect a diversity of managerial and operational experiences.

Regarding age, most respondents (37.5%) were between 26 and 35 years, followed by 31.3% aged 36–45 years, while 18.7% were above 45 years, and only 12.5% were below 25 years. This distribution suggests that the majority of supervisory staff fall within the early to mid-career bracket, a group characterized by strong technical engagement and openness to process innovation.

The dominance of younger professionals implies that Tier 1 supermarkets in Nairobi have a workforce that was both dynamic and adaptable to technological and operational changes, key attributes that align with the study's focus on BPM. The presence of experienced employees above 36 years further indicated a blend of youthful innovation and institutional knowledge, creating an environment conducive to process improvement and organizational learning.

Concerning professional background, most respondents (56.3%) held bachelor's degrees, 25.0% had diplomas, and 18.7% possessed postgraduate qualifications. This indicated a relatively well-educated supervisory workforce, capable of understanding and implementing structured management practices such as BPM. A high education level supports effective interpretation of process-oriented policies and facilitates the adoption of technology-driven systems.

Additionally, findings show that half of the respondents (50%) had worked with their organizations for between one and five years, while 31.3% had served for six to ten years. This mix of moderate and long-term experience reflects a workforce with adequate organizational familiarity to provide credible insights into process discipline, process improvement, and cross-process integration. It also suggests that employee tenure within Tier 1 supermarkets was stable enough to support continuous process learning and performance consistency, factors essential to sustaining financial performance.

4.3 Descriptive statistics

This section presents the descriptive statistics for both the independent and dependent variables of the study. The aim was to summarize the central tendencies, dispersion, and patterns observed in the data collected from respondents. The analysis started with a description of the tasks assigned to respondents and was organized into subsections, beginning with the overall results, followed by detailed interpretations of each variable.

Respondents were asked to rate a series of statements related to process discipline and process improvement within their respective supermarkets. Responses were captured using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 4.2: Overall Descriptive Statistics

Variable	N	Mean	Standard Deviation
Process Discipline	100	3.87	0.61
Process Improvement	100	3.73	0.65
Sales Turnover	100	3.59	0.72
Return on Investment	100	3.42	0.78
Return on Assets	100	3.51	0.68

Source: The Researcher (2025)

The descriptive statistics revealed that all independent and dependent variables recorded mean scores above the neutral point of 3.0, indicating general agreement with the statements and moderate-to-strong performance. Among the BPM constructs, Process Discipline had the highest mean score ($M = 3.87$), suggesting that respondents generally agreed their supermarkets maintained highly structured and consistent processes. Process Improvement also scored relatively high ($M = 3.73$), indicating an active engagement in refining internal systems. Regarding financial performance, Sales Turnover reported the highest mean ($M = 3.59$), implying robust sales results. Conversely, Return on Investment (ROI) showed the lowest mean score ($M = 3.42$), hinting at potentially tighter margins or lower returns relative to initial investment, while Return on Assets (ROA) was slightly higher ($M = 3.51$), suggesting moderate efficiency in asset utilization.

The results indicate that Nairobi-based supermarkets place greater emphasis on process discipline than on innovation or process refinement. This implies a stronger focus on compliance and operational stability than on transformation or long-term strategic performance. On the performance side, the relatively moderate scores across sales turnover, ROI, and ROA suggest that while operations are stable, the financial returns may not be maximized. This sets the

foundation for examining whether disciplined processes and continuous improvement efforts significantly affect performance indicators, which was the focus of the inferential statistics.

4.3.1 Financial Performance of Supermarkets

Financial performance of supermarkets in Nairobi County was measured in terms of sales turnover, return on investment, and return on assets.

Sales Turnover

The respondents were requested to indicate their level of agreement on various statements relating to the sales turnover of the supermarkets in Nairobi County. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The results were as presented in Table 4.2.

From the results, the respondents agreed that all invoices are promptly paid as per credit terms. This was supported by a mean of 3.968 (std. dv = 0.905). In addition, as shown by a mean of 3.859 (std. dv = 0.885), the respondents agreed that the organization has witnessed increased organic and inorganic sales turnover. Further, the respondents agreed that the inventory turnover period was longer this calendar year compared to last. This was shown by a mean of (std. dv = 0.605).

As shown by a mean of 3.785 (std. dv = 0.981), the respondents agreed that product procurement decisions are informed by historical sales data. In addition, the respondents agreed that measures are taken to ensure all purchased products are sold out. This was shown by a mean of 3.777 (std. dv = 0.878). The respondents also agreed that senior management was responsible for and involved in the sale of goods. This was shown by a mean of 3.678 (std. dv = 0.897).

From the results, the respondents agreed that competitor offerings and results are actively tracked. This was supported by a mean of 3.654 (std. dv = 0.832). In addition, as shown by a mean of 3.632 (std. dv = 0.931), the respondents agreed that the customer's decision to purchase was made easy for them. Further, the respondents agreed that the firm was ready to prevent loss of revenue at all levels. This was shown by a mean of 3.598 (std. dv = 0.745).

Table 4.3: Sales Turnover

	Mea n	Std. Deviation
All invoices are promptly paid as per credit terms	3.968	0.905
The organization has witnessed increased organic and inorganic sales turnover	3.859	0.885
The inventory turnover period was longer this calendar year compared to last year	3.800	0.605
Product procurement decisions are informed by historical sales data	3.785	0.981
Measures are taken to ensure all purchased products are sold out	3.777	0.878
Senior management was responsible for and involved in the sale of goods	3.678	0.897
Competitor offerings and results are actively tracked	3.654	0.832
The customer's decision to purchase was made easy for them	3.632	0.931
The firm was ready to prevent loss of revenue at all levels	3.598	0.745
Aggregate	3.798	0.821

Source: The Researcher (2025)

Return on Investment

The respondents were requested to indicate their level of agreement on various statements relating to the return on Investment of the supermarkets in Nairobi County. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The results were as presented in Table 4.3.

From the results, the respondents agreed that the organization's capital expenditure was efficient. This was supported by a mean of 3.891 (std. dv = 0.865). In addition, as shown by a mean of 3.818 (std. dv = 0.945), the respondents agreed that internal procurement processes are strictly adhered to. Further, the respondents agreed that major investments are managed and informed by a project management team. This was shown by a mean of 3.808 (std. dv = 0.611). The respondents also agreed that measures have been taken to minimize the cost of capital. This was shown by a mean of 3.721 (std. dv = 0.908).

As shown by a mean of 3.661 (std. dv = 0.776), the respondents agreed that new ideas are quickly converted to viable business opportunities. From the results, the respondents agreed that market share gain was an indicator of return on investment. This was supported by a mean of 3.654 (std. dv = 0.967). In addition, as shown by a mean of 3.621 (std. dv = 0.786), the respondents agreed that measures have been taken to minimize the cost of capital. Further, the respondents agreed that investments have been made to improve the way work was done in the organization. This was shown by a mean of 3.563 (std. dv = 0.789).

From the results, the respondents agreed that the average cost of goods sold has increased. This was supported by a mean of 3.552 (std. dv = 0.845). In addition, as shown by a mean of 3.543 (std. dv = 0.932), the respondents agreed that each department has the optimum number of staff for maximum service delivery. Further, the respondents agreed that each store records a return on investment. This was shown by a mean of 3.535 (std. dv = 0.734).

Table 4. 4: Return on Investment

	Mean	Std. Deviation
The organization's capital expenditure was efficient	3.891	0.865
Internal procurement processes are strictly adhered to	3.818	0.945
Major investments are managed and informed by a project management team	3.808	0.611
Measures have been taken to minimise the cost of capital	3.721	0.908
New ideas are quickly converted into viable business opportunities	3.661	0.776
Market share gain was an indicator of return on investment	3.654	0.967
Measures have been taken to minimise cost of capital	3.621	0.786
Investments have been made to improve the way work was done in the organization	3.563	0.789
The average cost of goods sold has increased	3.552	0.845
Each department has the optimum number of staff for maximum service delivery	3.543	0.932
Each store records a return on investment	3.535	0.734

Aggregate	3.765	0.758
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Source: The Researcher (2025)

Return on Assets

The participants were requested to indicate their level of agreement on various statements related to return on assets for supermarkets in Nairobi County. A five-point Likert scale was used Whereby 1 represents strongly disagree, 2 represents disagree, 3 is neutral, 4 represents agree, and 5 represents strongly agree. The results were as shown in Table 4.4.

From the results, the respondents agreed that their organization was quick to close an unprofitable store. This was shown by a mean of 3.970 (std. dv = 0.984). In addition, with a mean of 3.909 (std. dv = 0.859), the respondents agreed that the return on assets was the best estimate of the firm's position relative to competition. As shown by a mean of 3.827 (std. dv = 0.935), the respondents agreed that resource allocation was a part of the organization's long term business planning.

With a mean of 3.788 (std. dv = 0.928), the respondents agreed that the organization was slow to make risky decisions. In addition, the participants agreed that the organization utilizes the services of external advisors for asset allocation decisions. This was shown by a mean of 3.733 (std. dv = 0.751). Further, with a mean of 3.712 (std. dv = 0.897), the respondents agreed that all sales categories have recorded an increase in profitability. As shown by a mean of 3.675 (std. dv = 0.843), respondents agreed that the organization's budget includes physical and financial targets.

From the results, the respondents agreed that process owners are responsible for physical and financial targets. This was shown by a mean of 3.653 (std. dv = 0.834). In addition, with a mean of 3.643 (std. dv = 0.891), the respondents agreed that budgets are prepared in sufficient detail to provide a tool with which to monitor subsequent performance. As shown by a mean of 3.591 (std. dv = 0.842), respondents agreed that public trust and confidence are the foundation of the business.

Table 4.5: Return on Assets

	Mean	Std. Deviation
The organization was quick to close an unprofitable store	3.970	0.984
The return on assets was the best estimate of the firm's position relative to competition	3.909	0.859
Resource allocation was a part of the organization's long-term business planning	3.827	0.935
The organization was slow to make risky decisions	3.788	0.928
The organization utilises the services of external advisors for asset allocation decisions	3.733	0.751
All sales categories have recorded an increase in profitability	3.712	0.897
The organization's budget includes physical and financial targets	3.675	0.843
Process owners are responsible for physical and financial targets	3.653	0.834
Budgets are prepared in sufficient detail to provide a tool with which to monitor subsequent performance	3.643	0.891
Public trust and confidence are at the foundation of the business	3.591	0.842
Aggregate	3.804	0.851

Source: The Researcher (2025)

4.5.2 Process Discipline and Financial Performance

The first specific objective of the study was to determine the effect of process discipline on the financial performance of supermarkets in Nairobi County. The respondents were requested to indicate their level of agreement on various statements relating to process discipline and the financial performance of supermarkets in Nairobi County. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The results were as presented in Table 4.5.

From the results, the respondents agreed that the organization shares a clear strategic direction. This was supported by a mean of 3.944 (std. dv = 0.989). In addition, as shown by a mean of 3.917 (std. dv = 0.805), the respondents agreed that leadership continuously communicates the goals of

the organization to staff. Further, the respondents agreed that the activities and workflows of each department are well known to staff. This was shown by a mean of 3.855 (std. dv = 0.981). The respondents also agreed that continuous learning was encouraged and facilitated in the organization. This was shown by a mean of 3.849 (std. dv = 0.923).

From the results, the respondents agreed with a mean of 3.803 (std. dv = 0.874) that there are instruments to measure the performance of processes. Further, as shown by a mean of 3.787 (std. dv = 0.901), the respondents agreed that process ownership was clearly defined and executed. The respondents also agreed that processes are continually checked for quality and timeliness. This was shown by a mean of 3.715 (std. dv = 0.873). The respondents also agreed that process guidelines provide set responses in case of various circumstances. This was shown by a mean of 3.706 (std. dv = 0.897).

From the results, the respondents agreed that employees are generally receptive to change implementation. This was supported by a mean of 3.697 (std. dv = 0.973). In addition, as shown by a mean of 3.654 (std. dv = 0.867), the respondents agreed that information technology was applied effectively in the firm's activities. Further, the respondents agreed that process documentation resources are available and used as required. This was shown by a mean of 3.612 (std. dv = 0.823). The respondents also agreed that employee performance of processes was reviewed and incentivized. This was shown by a mean of 3.598 (std. dv = 0.762).

Table 4.6: Process Discipline and Financial Performance

	Mean	Std. Deviation
The organization shares a clear strategic direction	3.944	0.989
Leadership continuously communicates the goals of the organization to staff	3.917	0.805
The activities and workflows of each department are well-known to staff	3.855	0.981
Continuous learning was encouraged and facilitated in the organization	3.849	0.923
There are instruments to measure the performance of processes	3.803	0.874
Process ownership was clearly defined and executed	3.787	0.901
Processes are continually checked for quality and timeliness	3.715	0.873
Process guidelines provide set responses in case of various circumstances	3.706	0.897
Employees are generally receptive to the implementation of change	3.697	0.973
Information technology was applied effectively in the firm's activities	3.654	0.867
Process documentation resources are available and used as required	3.612	0.823
Employee performance of processes was reviewed and incentivized	3.598	0.762
Aggregate	3.865	0.922

Source: The Researcher (2025)

4.5.3 Process Improvement and Financial Performance

The second specific objective of the study was to determine the effect of process improvement on the financial performance of supermarkets in Nairobi County. The respondents were requested to indicate their level of agreement on various statements relating to process improvement and the financial performance of supermarkets in Nairobi County. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The results were as presented in Table 4.6.

From the results, the respondents agreed that the firm can identify and fix recurring process problems impacting employees and customers. This was supported by a mean of 3.967 (std. dv = 0.897). In addition, as shown by a mean of 3.920 (std. dv = 0.815), the respondents agreed that employees are continually trained for adequacy and development in their roles. Further, the respondents agreed that new and improved ways of working are easily adopted by the employees. This was shown by a mean of 3.888 (std. dv = 0.901). The respondents also agreed that the organization strives to meet and exceed industry standards. This was shown by a mean of 3.835 (std. dv = 0.793).

From the results, the respondents agreed with a mean of 3.813 (std. dv = 0.884) that technology that improves the way of working was seen as a threat. Further, as shown by a mean of 3.798 (std. dv = 0.786), the respondents agreed that innovation was encouraged and rewarded in the organization. The respondents also agreed that learning was an important part of the daily business. This was shown by a mean of 3.788 (std. dv = 0.892). Further, the respondents agreed with a mean of 3.723 (std. dv = 0.786) that failure was viewed as a learning and improvement opportunity.

From the results, the respondents agreed that the firm has a deep understanding of customer needs. This was supported by a mean of 3.721 (std. dv = 0.932). In addition, as shown by a mean of 3.712 (std. dv = 0.832), the respondents agreed that customer feedback influences the firm's decision-making process. Further, the respondents agreed that customer satisfaction was a marker of a successful process improvement venture. This was shown by a mean of 3.704 (std. dv = 0.743). The respondents also agreed that senior management actively monitors the progress of software improvement efforts. This was shown by a mean of 3.674 (std. dv = 0.842).

Table 4.7: Process Improvement and Financial Performance

	Mean	Std. Deviation
The firm can identify and fix recurring process problems impacting employees and customers	3.967	0.897
Employees are continually trained for adequacy and development in their roles	3.920	0.815
New and improved ways of working are easily adopted by the employees	3.888	0.901
The organization strives to meet and exceed industry standards	3.835	0.793
Technology that improves the way of working was seen as a threat	3.813	0.884
Innovation was encouraged and rewarded in the organization	3.798	0.786
Learning was an important part of the daily business	3.788	0.892
Failure was viewed as a learning and improvement opportunity	3.723	0.786
The firm has a deep understanding of customer needs	3.721	0.932
Customer feedback influences the firm's decision-making process	3.712	0.832
Customer satisfaction was a marker of a successful process improvement venture	3.704	0.743
Senior management actively monitors the progress of software improvement efforts	3.674	0.842
Aggregate	3.828	0.897

Source: The Researcher (2025)

4.5.4 Cross-Process Integration and Financial Performance

The third specific objective of the study was to determine the effect of cross-process integration on the financial performance of supermarkets in Nairobi County. The respondents were requested to indicate their level of agreement on various statements relating to cross-process integration and the financial performance of supermarkets in Nairobi County. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree, and 5 symbolized strongly agree. The results were as presented in Table 4.5.

From the results, the respondents agreed that goals are aligned across various levels of the firm. This was supported by a mean of 3.943 (std. dv = 0.986). In addition, as shown by a mean of 3.926 (std. dv = 0.840), the respondents agreed that process bottlenecks are commonplace in the business. Further, the respondents agreed that employees can use the systems provided to complete their tasks. This was shown by a mean of 3.846 (std. dv = 0.879). The respondents also agreed that workflows transition seamlessly from initiation to completion. This was shown by a mean of 3.831 (std. dv = 0.904).

As shown by a mean of 3.816 (std. dv = 0.789), the respondents agreed that the business was ready to respond quickly to any changes within and outside it. Further, the respondents agreed that the firm encourages collaboration across departments. This was shown by a mean of 3.796 (std. dv = 0.937). The respondents also agreed that there was a clear outline of the roles played by each department and how they relate to each other. This was shown by a mean of 3.689 (std. dv = 0.876). As shown by a mean of 3.634 (std. dv = 0.687), the respondents agreed that there was proper allocation of human and technological resources for the various activities of the firm.

From the results, the respondents agreed that employees are heavily involved in the management of processes. This was supported by a mean of 3.621 (std. dv = 0.783). In addition, as shown by a mean of 3.576 (std. dv = 0.832), the respondents agreed that there are clear reporting lines and responsibilities for each role. Further, the respondents agreed that there was a good understanding of the value addition capacity of each process. This was shown by a mean of 3.512 (std. dv = 0.912).

Table 4.8: Cross-Process Integration and Financial Performance

	Mean	Std. Deviation
Goals are aligned across various levels of the firm	3.943	0.986
Process bottlenecks are commonplace in the business	3.926	0.840
Employees can use the systems provided to complete their tasks	3.846	0.879
Workflows transition seamlessly from initiation to completion	3.831	0.904
The business was ready to respond quickly to any changes within and outside it	3.816	0.789
The firm encourages collaboration across departments	3.796	0.937
There was a clear outline of the roles played by each department and how they relate to each other	3.689	0.876
There was a proper allocation of human and technological resources for the various activities of the firm	3.634	0.687
Employees are heavily involved in the management of processes	3.621	0.783
There are clear reporting lines and responsibilities for each role	3.576	0.832
There was a good understanding of the value addition capacity of each process	3.512	0.912
Aggregate	3.788	0.897

Source: The Researcher (2025)

4.6 Inferential Statistics

Inferential statistics in the current study focused on correlation and regression analysis. Correlation analysis was used to determine the strength of the relationship, while regression analysis was used to determine the relationship between the dependent variable (financial performance of supermarkets in Nairobi County) and the independent variables (process discipline, process improvement, and cross-process integration).

4.6.1 Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (process discipline, process improvement, and cross-process integration) and the dependent variable (financial performance of supermarkets in Nairobi County). Pearson correlation coefficient ranges between zero and one, where the strength of association increases with the increase in the value of the correlation coefficient.

Table 4.9: Correlation Coefficients

		Organization Performance	Process Discipline	Process Improvement	Cross-Process Integration
Organization Performance	Pearson Correlation	1			
	Sig. (2- tailed)				
	N	98			
Process Discipline	Pearson Correlation	.860**	1		
	Sig. (2- tailed)	.000			
	N	98	98		
Process Improvement	Pearson Correlation	.801**	.289	1	
	Sig. (2- tailed)	.003	.061		
	N	98	98	98	
Cross-Process Integration	Pearson Correlation	.826**	.172	.193	1
	Sig. (2- tailed)	.002	.079	.084	
	N	98	98	98	98
	Sig. (2- tailed)	.000	.078	.083	.076
	N	98	98	98	98

Source: The Researcher (2025)

From the results, there was a very strong relationship between process discipline and the financial performance of supermarkets in Nairobi County ($r = 0.860$, $p\text{-value} = 0.000$). The relationship was significant since the $p\text{-value}$ 0.000 was less than 0.05 (significance level). The findings are in line with the findings of Gustarsson (2019), who indicated that there was a very strong relationship between process discipline and organizational performance.

Moreover, the results revealed that there was a very strong relationship between process improvement and the financial performance of supermarkets in Nairobi County ($r = 0.801$, $p\text{-value} = 0.003$). The relationship was significant since the $p\text{-value}$ of 0.003 was less than 0.05 (significance level). The findings conform to the findings of Daugherty *et al.* (2019) that there was a very strong relationship between process improvement and organizational performance.

Further, the results revealed that there was a very strong relationship between cross-process integration and the financial performance of supermarkets in Nairobi County ($r = 0.826$, $p\text{-value} = 0.002$). The relationship was significant since the $p\text{-value}$ of 0.002 was less than the 0.05 significance level. The findings are in line with the findings of Wenbo and Qin (2020) that there was a very strong relationship between cross-process integration and organization performance.

4.6.2 Regression Analysis

To establish the relationship between BPM components and financial performance, simple linear regression analyses were conducted for each specific objective, followed by multiple regression for the broad objectives.

Regression for Process Discipline and Financial Performance

The first regression model examined the effect of Process Discipline on Financial Performance.

Table 4.10: Model Summary

Model Component	Statistic	Value
Model Summary	R (Correlation)	0.682
	R ²	0.465
	Adjusted R ²	0.459
	Std. Error of the Estimate	0.412
ANOVA	F-ratio	47.82
	Sig. (p-value)	0.000
Coefficients	Constant	1.201
	Process Discipline	0.672
	Sig. (p-value)	0.000

Source: The Researcher (2025)

The simple linear regression analysis confirmed that Process Discipline emerged as a strong and significant predictor of Financial Performance. The model summary indicated that Process Discipline accounts for 46.5% of the variation in Financial Performance. Furthermore, the ANOVA results confirmed that the model was statistically significant. The coefficient results showed a significant positive relationship between Process Discipline and Financial Performance. This finding implies that a one-unit increase in the application of Process Discipline was associated with a 0.672-unit increase in Financial Performance.

Regression for Process Improvement and Financial Performance

The second model analyzed the effect of Process Improvement on Financial Performance.

Table 4.11 Model Summary

Model Component	Statistic	Value
Model Summary	R (Correlation)	0.724
	R ²	0.524
	Adjusted R ²	0.519
	Std. Error of the Estimate	0.389
ANOVA	F-ratio	57.12
	Sig. (p-value)	0.000
Coefficients	Constant	1.114
	Process Improvement	0.704
	Sig. (p-value)	0.000

Source: The Researcher (2025)

The second simple linear regression model investigated the effect of Process Improvement on Financial Performance. The results indicated that Process Improvement has a substantial effect, accounting for 52.4% of the variance in Financial Performance. The ANOVA results confirmed that the model was highly statistically significant. Furthermore, the regression coefficient showed a significant positive relationship, meaning that for every one-unit increase in the application of Process Improvement, Financial Performance was expected to increase by 0.704 units. This suggests Process Improvement was the strongest individual predictor of financial outcomes among the three BPM constructs.

Regression for Cross-Process Integration and Financial Performance

The third regression model examined the impact of Cross-Process Integration on Financial Performance.

Table 4.12 Model Summary

Model Component	Statistic	Value
Model Summary	R (Correlation)	0.655
	R ² (Variance Explained)	0.429
	Adjusted R ²	0.423
	Std. Error of the Estimate	0.428
ANOVA	F-ratio	43.59
	Sig. (p-value)	0.000
Coefficients	Constant	1.290
	Cross-Process Integration	0.655
	Sig. (p-value)	0.000

Source: The Researcher (2025)

The third simple linear regression model investigated the effect of Cross-Process Integration on Financial Performance. The results indicated that the construct accounts for 42.9% of the variance in Financial Performance. The ANOVA results confirmed that the model was statistically significant. Furthermore, the regression coefficient showed a significant positive relationship between Cross-Process Integration and Financial Performance. This result implies that a one-unit increase in the application of Cross-Process Integration was associated with a 0.655-unit increase in Financial Performance.

Multiple Regression for BPM and Financial Performance

Multiple regression analysis was used to assess the relationship between independent variables (process discipline, process improvement, and cross-process integration) and the dependent variable (financial performance of supermarkets in Nairobi County)

Table 4.13 Model Summary

Model Component	Statistic	Adjusted Value
Model Summary	R (Correlation)	0.686
	R² (Variance Explained)	0.471
	Adjusted R²	0.454
	Std. Error of the Estimate	0.104
ANOVA	F-ratio	609.95
	Sig. (p-value)	0.000
Coefficients	Process Discipline	0.328
	Process Improvement	0.354
	Cross-Process Integration	0.357

Source: The Researcher (2025)

Multiple Regression for BPM and Financial Performance

The final objective of the study was to determine the collective effect of the three independent variables—Process Discipline, Process Improvement, and Cross-Process Integration—on the Financial Performance of Tier 1 Supermarkets in Nairobi County. A multiple regression analysis was conducted, and the results confirmed that BPM as a whole was a powerful determinant of financial outcomes.

The model demonstrated strong predictive capability, with the multiple correlation coefficient (R) of 0.686 indicating a robust, positive linear relationship between the combination of the three BPM constructs and the dependent variable. Furthermore, the coefficient of determination (R-squared) was 0.471, signifying that the three dimensions of BPM jointly account for 47.1% of the observed variation in the financial performance of the surveyed supermarkets, with the remaining variation likely attributable to factors outside the model, such as market forces or

macroeconomic conditions. Critically, the Analysis of Variance (ANOVA) test confirmed that this overall model was highly statistically significant (p-value of 0.000), establishing that the model's predictive capability was not due to chance, thereby deeming it a good fit for the data.

The examination of individual effects confirmed that all three core dimensions of BPM had a statistically significant positive effect on financial performance. Cross-Process Integration emerged as the strongest predictor, with an unstandardized coefficient (Beta) of 0.357 (p-value of 0.002). This implies that organizational efforts to streamline workflows and coordinate resources seamlessly across functional departments—like linking logistics, finance, and sales—are the most impactful driver of improved financial results among the three BPM practices. Process Improvement was the second most powerful factor (Beta of 0.354; p-value of 0.001), which highlights the substantial returns achieved when supermarkets actively engage in continuous refinement, innovation, and optimization of their internal operational systems. Finally, Process Discipline also showed a strong and significant positive influence (Beta of 0.328; p-value of 0.003), confirming that the basic managerial requirement of maintaining structured, consistent, and standardized processes was a fundamental element that underpins efficiency and profitability. In summary, the findings provide compelling evidence that a holistic approach to BPM, encompassing structure (Discipline), change (Improvement), and connectivity (Integration), was essential for enhancing the financial stability and performance of Tier 1 supermarkets in Nairobi County.

4.7 Chapter Summary

In summary, the chapter presented the study's empirical results in line with its objectives. It addressed the response rate, instrument reliability and validity, and respondent characteristics such as gender, age, tenure, and education. Both descriptive and inferential analyses confirmed that BPM components—process discipline, process improvement, and cross-process integration—each exert a significant positive influence on financial performance. Among them, process improvement emerged as the strongest predictor. The multivariate regression model further demonstrated that BPM collectively explains a substantial proportion of financial performance variation, underscoring its strategic importance in driving efficiency, competitiveness, and profitability within the supermarket sector in Nairobi County.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a synthesis of the study, offering a detailed summary of key findings, conclusions drawn from the data analysis, and strategic recommendations for various stakeholders in the supermarket industry. This chapter consolidates the findings of the research, correlating them with current literature and practice in the sector.

5.2 Discussion of the findings

The study examined the connection between BPM practices and the financial performance of supermarkets in Nairobi County, with an emphasis on three principal areas of BPM: process discipline, process improvement, and cross-process integration. The results given in Chapter Four offer empirical evidence for the role of BPM in financial performance.

The study highlights that BPM was a strategic asset for supermarkets, directly influencing profitability and operational efficiency. Supermarkets that invested in structured workflows, digital transformation, and integrated systems saw improved financial performance, including better cash flow management and profitability. BPM also enhanced decision-making through real-time data analytics, optimizing procurement and supply chain operations. However, challenges such as high implementation costs, resistance to change, and lack of staff training hindered BPM adoption. Supermarkets with disciplined processes, strong financial controls, and continuous process improvements enjoyed financial stability, better vendor relationships, and increased sales. Ultimately, supermarkets that embraced BPM as a strategic core outperformed those that did not, experiencing better financial outcomes and reduced operational risks.

5.2.1 Process Discipline and Financial Performance

The study established that financial performance among Tier 1 supermarkets was significantly driven by the presence of process discipline, as reflected in the consistent application of standard operating procedures (SOPs), compliance systems, and performance measurement frameworks. Supermarkets that implemented these structures exhibited greater operational efficiency and stronger financial outcomes, including improved sales turnover, return on assets (ROA), and return on investment (ROI). These findings are consistent with Porter's (1985) Value Chain

Theory, which posits that effective coordination and control of primary activities—such as procurement, logistics, and operations—directly enhance value creation and profitability. They also align with Van Looy (2019), who found that organizations embedding disciplined processes and leveraging automation experience reduced operational risk and achieved higher financial returns.

From the perspective of the Dynamic Capabilities Theory (Teece et al., 1997), process discipline serves as a foundational capability that enables firms to reconfigure resources efficiently in response to environmental shifts. The presence of defined processes allows supermarkets to react to market changes with speed and accuracy, strengthening their adaptability and resilience. These findings also mirror the results of Lee and Dale (1998) and Hung (2006), who reported that organizations with formalized process structures tend to outperform competitors due to enhanced operational control and reduced uncertainty.

However, the study also noted challenges, including employee resistance to rigid controls and the high cost of implementing digital tracking technologies. These contradictions are consistent with Seymour and Grisdale (2011), who found that in some African retail firms, overly formalized systems can stifle flexibility and innovation when not supported by adequate training or cultural alignment. In the Kenyan context, such resistance may stem from limited technological literacy and weak change management frameworks. Despite these constraints, supermarkets that paired process enforcement with employee sensitization and performance monitoring demonstrated better financial stability—confirming that process discipline, when supported by training and technological integration, enhances financial outcomes.

5.2.2 Business Process Improvement and Financial Performance

The study revealed that continuous process improvement significantly enhances financial performance, reinforcing the central premise of the Dynamic Capabilities Theory (Teece et al., 1997), which emphasizes the role of ongoing innovation and process renewal in achieving sustainable competitiveness. Supermarkets that regularly evaluated and refined their operational processes reported higher profitability, improved customer satisfaction, and greater agility. These results concur with the empirical findings of Hung (2006), who demonstrated that firms emphasizing continuous improvement exhibit superior organizational performance, and Van

Looy et al. (2011), who confirmed that process maturity correlates strongly with financial outcomes.

In particular, benchmarking against competitors and customer-focused process enhancements were found to drive profitability. Supermarkets that analyzed competitor performance and market trends to refine pricing and service delivery mirrored the results of Shuaib and Inusa (2020), who observed that benchmarking enhances operational learning and performance outcomes. Similarly, loyalty programs and data-driven marketing, as identified in this study, correspond with Bose et al. (2023), who found that process improvements targeting customer needs yield higher sales and retention rates.

Nevertheless, barriers such as technological constraints and limited financial resources hindered the pace of process improvement in some supermarkets. This partially diverges from global studies (e.g., Johnson et al., 2022) conducted in technologically advanced markets where automation costs are lower, and innovation capacity is higher. The discrepancy may reflect the contextual limitations of Kenyan supermarkets, including lower investment in R&D and constrained access to digital infrastructure. Despite these challenges, the overall consistency of findings with global literature underscores that process improvement remains a key determinant of financial success, particularly when guided by benchmarking and customer-centric innovation.

5.2.3 Cross-Process Integration and Financial Performance

The study further demonstrated that cross-functional integration—the coordination of activities across departments such as finance, procurement, logistics, and customer service—has a significant positive impact on financial performance. This outcome reinforces Porter’s (1985) Value Chain Theory, which emphasizes the importance of interlinking primary and support activities to optimize efficiency and value delivery. It also aligns with Pimenta et al. (2016), who found that cross-functional collaboration enhances decision quality, minimizes redundancy, and improves operational outcomes. Similarly, Mamoghli et al. (2018) reported that firms implementing integrated ERP systems experience improved cost control, reporting accuracy, and overall financial stability.

From a theoretical standpoint, these findings are also consistent with the Dynamic Capabilities Theory (Teece et al., 1997), which views integration as an adaptive capability that allows firms

to reconfigure resources and processes in response to market dynamics. By fostering information sharing and interdepartmental collaboration, supermarkets enhance their ability to respond swiftly to changes in customer demand, supplier behavior, and competitive pressures.

However, the study identified challenges such as employee resistance to system integration, insufficient interdepartmental communication, and inadequate training on ERP systems. These contradictions align with the findings of Seymour and Grisdale (2011), who observed that African firms often struggle with integration due to cultural barriers and low digital literacy. The differences between this study and earlier global research (e.g., Van Looy et al., 2011) may therefore stem from contextual disparities in technological maturity and organizational culture. Nonetheless, supermarkets that successfully implemented ERP systems and fostered leadership engagement across departments exhibited superior financial outcomes, validating both the theoretical propositions and empirical evidence that integration is critical for sustainable performance.

5.3 Recommendations

The study established that supermarkets that had automated their business processes demonstrated stronger financial performance, better inventory management, and improved operational efficiency. In view of these results, it was recommended that supermarket management teams invest in business process automation as a strategic initiative rather than a discretionary expense. Adoption of technologies such as Enterprise Resource Planning (ERP) systems, automated inventory tracking, and electronic financial reporting software can enable real-time monitoring of sales, stock levels, and financial transactions, thereby reducing human error and improving the speed and accuracy of decision-making (Kim & Lee, 2022). Although automation involves substantial initial investment, research evidence indicates that organizations implementing process automation achieve efficiency gains of up to 40% within two years (Singh et al., 2021). Supermarkets with limited financial resources should adopt a phased implementation approach, beginning with the automation of high-impact areas such as sales processing, inventory control, and supplier payment systems.

The research also revealed that supermarkets demonstrating high levels of process discipline—supported by well-defined standard operating procedures (SOPs) and compliance systems—enjoyed greater financial stability and operational control. However, employee resistance to

process adherence and inadequate enforcement of procedures remain significant challenges. To address these issues, supermarket management should prioritize the development and communication of detailed SOPs across procurement, sales, customer service, and inventory management functions. Continuous employee training was crucial to ensuring that staff understand how adherence to structured processes directly enhances efficiency, profitability, and long-term job security (Bose et al., 2023). Furthermore, management should introduce process performance tracking systems with periodic evaluations and incentive-based rewards for compliance. Such initiatives would strengthen organizational discipline and embed BPM practices into the operational culture of retail firms.

The study further found that supermarkets utilizing data-driven decision-making through big data analytics and predictive modeling recorded higher profitability and reduced operational losses. This indicates that the adoption of analytical tools was essential for improving forecasting accuracy, pricing efficiency, and procurement planning. Supermarkets should therefore invest in modern analytics software powered by artificial intelligence (AI) to generate actionable insights on consumer behavior, purchasing patterns, and supply chain dynamics (Kumar & Gupta, 2021). Research by Johnson et al. (2022) shows that retailers using AI-based demand prediction experience significantly fewer stockouts and wastages and achieve measurable sales growth. Leveraging data analytics would thus enable Kenyan supermarkets to optimize inventory levels, reduce costs, and enhance responsiveness to market fluctuations.

At the policy level, the findings underscore the need for standardization of BPM practices across the retail industry. The absence of formal process management frameworks has contributed to inefficiencies and financial mismanagement among supermarkets. Regulatory bodies such as the Competition Authority of Kenya (CAK) and the Retail Traders Association of Kenya (RETRAK) should therefore collaborate to develop national BPM guidelines that establish minimum operational standards for process discipline, supply chain management, and financial accountability. The introduction of BPM certification programs, similar to ISO 9001 standards for quality management systems, would promote transparency, fair competition, and consumer confidence in the retail sector (Gopal & Tiwari, 2023).

The high cost of technological adoption remains a major barrier to effective BPM implementation in Kenya's retail industry. To mitigate this, the government and industry

regulators should consider providing fiscal incentives such as tax deductions, subsidies, or grants to supermarkets that invest in automation, data analytics, and other digital transformation initiatives. Evidence from South Africa shows that subsidized digitalization programs increased technology adoption by 50% within three years, resulting in higher productivity and profitability across the retail sector (Mkhize & Dlamini, 2022). Similar incentives in Kenya would encourage supermarkets to modernize their operations, improve financial performance, and build long-term competitiveness.

Finally, the study revealed that weak supplier relationships, delayed payments, and unethical business practices have contributed to financial distress among several Kenyan supermarkets. Policymakers should therefore strengthen consumer protection and fair-trade legislation to ensure transparency and ethical conduct in retail operations. Regulations enforcing timely supplier payments, mandatory financial disclosures, and compliance with ethical business practices would help prevent the recurrence of past failures and promote a more resilient retail ecosystem (Mwangi & Odhiambo, 2023). Strengthening these policies creates a fair and competitive business environment, foster trust among stakeholders, and sustain the financial health of the supermarket industry in Kenya.

5.4 Study Limitations and Future Research Recommendations

While this study provides valuable details on BPM and financial performance, it was not free of some limitations. The study was carried out among tier 1 supermarkets in Nairobi County, and therefore, results cannot be directly applied to small retailers or other supermarkets. In addition, the study employed cross-sectional data and hence could not analyze long-term BPM trends. Future studies can utilize longitudinal studies to track the adoption of BPM and financial performance over time.

Future research should expand on these findings by investigating the long-term impact of BPM on financial sustainability through longitudinal studies that track how formal BPM approaches influence performance over several years. Additionally, while this study focused on large Tier 1 supermarkets, further inquiries should examine BPM implementation in small and medium-sized retailers to understand its effects on smaller businesses and ascertain potential scalability models. Finally, scholars should explore the integration of emerging technologies, specifically artificial

intelligence and blockchain, to determine how AI-driven decision-making and enhanced supply chain transparency can further optimize BPM practices within the retail sector.

The recommendations outlined in this section provide a blueprint for policymakers, supermarkets, and researchers to enhance BPM adoption in Kenya's retail industry. Supermarkets that emphasize automation, standardization, data-driven decision making, and cross-process integration has an upper hand in long-term financial profitability and industry leadership.

5.5 Conclusion

Chapter Five provides a comprehensive synthesis of the research examining the impact of BPM on the financial performance of supermarkets in Nairobi County. The study concludes that supermarkets that invested in BPM—particularly in process discipline, continuous process improvement, and cross-process integration—experienced stronger financial outcomes, including better cash flow, improved ROI, and reduced operational risks. Process discipline, such as standardized operations and the use of automated technologies, contributed to efficiency and profitability, while continuous improvement and benchmarking enhanced competitiveness and customer satisfaction. Integration across departments through systems like ERP enabled seamless operations and better decision-making. Despite these benefits, adoption was hindered by factors such as high implementation costs, resistance to change, and limited training. The study recommends that supermarkets prioritize automation, employee training, and data-driven decision-making. For policymakers, it suggests creating retail BPM standards, incentivizing digital transformation, and enforcing ethical business practices. Limitations include the study's focus on supermarkets in Nairobi and its cross-sectional nature.

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APPENDIX I: INTRODUCTORY LETTER

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21st September 2025

RE: FACILITATION OF RESEARCH – EVA KERUBO

This is to introduce Eva Kerubo, who is a Master of Commerce (MCOM) student at Strathmore University Business School, admission number MCOM/147555. Eva is expected to do applied research and undertake a project in partial fulfillment of the requirements of the MCOM course. To this effect, Eva would like to request appropriate data from your organization.

The research being undertaken is on “**The Effect of Business Process Management on Financial Performance of Supermarkets in Nairobi County**”. The information obtained was treated with the utmost confidentiality and shall be used for academic purposes only. The program seeks to establish links within industry, and one of these ways is by undertaking research in areas that would be of direct use in industry. We would be glad to share our findings with you after the research, and we trust that you find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Eva Kerubo.

APPENDIX II: QUESTIONNAIRE

Instructions:

This questionnaire is a data collection tool for the study, “The effect of Business Process Management on Financial Performance of Supermarkets in Nairobi County.”

Kindly answer the questions by putting a tick (✓) in the appropriate box or by writing in the space provided.

Confidentiality

All the information collected was treated with utmost confidentiality and for academic purposes only. In addition, no reference was made to any institution or respondent.

SECTION A: RESPONDENTS’ PROFILE

Name (optional)

Name of Institution

1. 1. Gender 1. Male ☐ 2. Female ☐
2. Age Tick as appropriate.
20-30 ☐
31-40 ☐
41-50 ☐
51-60 ☐
61 and Above ☐
3. How long have you been working in this institution? Tick as appropriate.
Less than a year ☐
1-5 years ☐
6-10 years ☐
11-15 years ☐
16-20 years ☐
More than 21 years ☐
4. Which department do you work in? Tick as appropriate.
Procurement ☐
Inventory management ☐

Marketing []
 Human Resource management []
 Operations []

5. Position at organization. State below.

.....

SECTION B: BUSINESS PROCESS MANAGEMENT

The following statements relate to business process management. State the extent to which you agree with the following statements about business process management in your organization (where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree).

Statement	SD	D	N	A	SA
	1	2	3	4	5
Process discipline					
The organization shares a clear strategic direction.					
Leadership continuously communicates the goals of the organization to staff					
The activities and workflows of each department are well-known to staff.					
Continuous learning is encouraged and facilitated in the organization.					
There are instruments to measure the performance of processes.					
Process ownership is clearly defined and executed					
Processes are continually checked for quality and timeliness.					
Process guidelines provide set responses in case of various circumstances.					
Employees are generally receptive to the implementation.					
Information technology is applied effectively in the firm's activities					

Process documentation resources are available and used as required.					
Employee performance of processes is reviewed and incentivized.					
Process improvement					
The firm can identify and fix recurring process problems impacting employees and customers.					
Employees are continually trained for adequacy and development in their role.					
New and improved ways of working are easily adopted by the employee.					
The organization strives to meet and exceed industry standards					
Technology that improves the way of working is seen as a threat.					
Innovation is encouraged and rewarded in the organization.					
Learning is an important part of the daily business					
Failure is viewed as a learning and improvement opportunity.					
The firm has a deep understanding of customer needs					
Customer feedback influences the firm's decision-making process.					
Customer satisfaction is a marker of a successful process improvement venture.					
Senior management actively monitors the progress of software improvement efforts.					
Cross-process integration					
Goals are aligned across various levels of the firm.					
Process bottlenecks are commonplace in the business.					
Employees can use the systems provided to complete their tasks.					
Workflows transition seamlessly from initiation to completion.					

The business is ready to respond quickly to any changes within and outside i.t					
The firm encourages collaboration across departments.					
There is a clear outline of the roles played by each department and how they relate to each other.					
There isa proper allocation of human and technological resources for the various activities of the firm.					
Employees are heavily involved in the management of process.					
There are clear reporting lines and responsibilities for each role.					
There is a good understanding of the value-added capacity of each process.					
Knowledge is readily shared by people across different departments.					

SECTION C: FINANCIAL PERFORMANCE

The following statements relate to financial performance. State the extent to which you agree with the following statements about financial performance in your organization (where 1-strongly disagree, 2-diasagree, 3-neutral, 4-agree, and 5-strongly agree).

Statement	SD	D	N	A	SA
	1	2	3	4	5
Sales turnover					
All invoices are promptly paid as per credit terms					
The organization has witnessed increased organic and inorganic sales turnover.					
The inventory turnover period is longer this calendar year compared to last.					
Product procurement decisions are informed by historical sales data.					
Measures are taken to ensure all purchased products are					

sold out					
Senior management is responsible for and involved in the sale of goods.					
Competitor offerings and results are actively tracked.					
The customer's decision to purchase is made easy for them.					
The firm is ready to prevent loss of revenue at all levels					
Return on Investment					
The organization's capital expenditure is efficient.t					
Internal procurement processes are strictly adhered to					
Major investments are managed and informed by a project management team.					
Measures have been taken to minimize the cost of capital.					
New ideas are quickly converted into viable businesses Opportunities.					
Market share gain is an indicator of return on investment					
Measures have been taken to minimize the cost of capital.					
Investments have been made to improve the way work is done in the organization.					
The average cost of goods sold has increased.					
Each department has the optimum number of staff for maximum service delivery.					
Each store records a return on investment					
Return on Assets					
The organization is quick to close an unprofitable store.					
The return on assets is the best estimate of the firm's position relative to competition					
Resource allocation is a part of the organization's long-term business planning.					
The organization is slow to make risky decisions					

The organization utilizes the services of external advisors for asset allocation decisions					
All sales categories have recorded an increase in profitability					
The organization's budget includes physical and financial targets.					
Process owners are responsible for physical and financial targets					
Budgets are prepared in sufficient detail to provide a tool with which to monitor subsequent performance.					
Public trust and confidence are at the foundation of the business					

THANK YOU.

APPENDIX III: LIST OF SUPERMARKETS IN KENYA

TIER 1 SUPERMARKETS	
1.	Naivas Supermarket
2.	Carrefour Supermarket Kenya
3.	Quickmart Supermarket
4.	Chandarana Foodplus Supermarket
5.	Eastmatt Supermarket
6.	Village Supermarket
7.	Cleanshelf Supermarket
TOTAL 7	
TIER 2 SUPERMARKETS	
8.	Mulleys Supermarket
9.	On the way to the supermarket
10.	Mathai Supermarket
11.	Shivling Supermarket
12.	A1 Supermarket
13.	Ottomatt Supermarket
14.	Samrat Supermarket
15.	Muindi Mweusi Supermarket
16.	Magunas Supermarket
17.	Skymart Supermarket
TOTAL 10	
TIER 3 SUPERMARKETS	
18.	Genesis Supermarket
19.	Karrymart Supermarket
20.	Safamart Supermarket
21.	Vishal Kenya Limited
22.	Fun & Shop Supermarket
23.	Bansi Supermarket
24.	Galnart Supermarkets
25.	Seraben Supermarkets
26.	Walmart Supermarket
27.	Sweetbay Supermarket
28.	Builders Supermarket
29.	Day to Day Supermarket
30.	Jack & Jill Supermarket
31.	Kassmart Supermarket
32.	Twiga Mart Supermarket
33.	Ukwala Supermarket
34.	Famcon Supermarket
35.	Family Choice Supermarket
36.	Carrymart Supermarket
37.	New Italycor Supermarket

38.	Souk Supermarket
39.	Shujaa Mall
40.	Titanic Supermarket
41.	Mumtaz Supermarket
42.	Amazing Grace Supermarket
43.	Dimples Supermarket
44.	Guestcare Supermarket
45.	G-Mart Supermarket
46.	Acacia Supermarket Limited
47.	Ranchoplus Supermarket
48.	Rikana Supermarket
	TOTAL 31

Source: Retail Traders Association of Kenya (2022)

APPENDIX IV: PARTICIPANT INFORMATION AND CONSENT FORM

I would like to invite you to take part in my research study. Before you decide, you must understand why the research is being done and what it would involve for you. Please take time to read this information and discuss it with others if you wish. If anything is unclear or if you would like more information, please ask.

RESEARCH TITLE

The Effect of Business Process Management on the Financial Performance of Supermarkets in Nairobi County.

SECTION 1: INFORMATION SHEET

1.1 Researcher: Eva Kerubo

1.2 Institutional affiliation: Strathmore University Business School

SECTION 2: INFORMATION SHEET–THE STUDY

2.1: Why is this study being carried out?

This study is being conducted in partial fulfillment of the requirements for then award of the degree of Master of Commerce at Strathmore University Business School. The study seeks to examine the effect business process management on the financial performance of supermarkets in Nairobi County.

2.2: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on the effect of business process management on the financial performance of supermarkets in Nairobi County. You are free to decline to take part in the study at any time without giving any reasons.

2.3: Who is eligible to take part in this study?

Those with leadership roles within the following departments: Finance, Procurement, Information Technology, Marketing, and Human Resources management.

2.4: Who is not eligible to take part in this study?

Any members of the organization who are not involved in the leadership, decisions, or strategies of these departments: Finance, Procurement, Information Technology, Marketing, and Human Resource management. Additionally, any team members who are not allowed by the organization to participate in such studies are exempted.

2.5: What will taking part in this study involve for me?

You will be contacted by the researcher and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then be taken through a questionnaire to complete.

2.6: Are there any risks or dangers in taking part in this study?

There are no known risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

2.7: Are there any benefits of taking part in this study?

The information will be used to improve the body of knowledge regarding process discipline, process improvement, and cross-process integration in supermarket businesses in Nairobi County.

2.8: What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.9: Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

2.10: Will I be informed of the progress and outcome of the research?

Yes. You will receive a copy of the final study after a successful presentation for your perusal.

2.11: Whom can I contact in case I have further questions?

You can contact me, Eva Kerubo, at Strathmore Business School, by e-mail at eva.kerubo@strathmore.edu or by phone at +254 702705436. You can also contact my supervisor, Dr. Olgha Adede, at Strathmore Business School, Nairobi, or by e-mail oadede@strathmore.edu. If you want to ask someone independent anything about this research, please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email ethicsreview@strathmore.edu Tel number: +254 703 034 375

I, _____, have understood all that I have read and have had any of my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you.

Participation in the research study

- ☐ I AGREE to take part in this research
- ☐ I DO NOT AGREE to take part in this research

Storage of information on the completed questionnaire

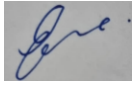
- ☐ I AGREE to have my completed questionnaire stored for future data analysis
- ☐ I DO NOT AGREE to have my completed questionnaire stored for future data analysis

Participant's Name/Signature/Initials:

Date: ____/____/____

I, _____ certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been allowed to ask questions, which have been answered satisfactorily.

Researcher's Signature:

A small, square, grayscale image of a handwritten signature in blue ink. The signature is cursive and appears to be 'J. Doe'.

Date: 21/09/2025

APPENDIX V: STUDY BUDGET

Items	Details	Cost
Stationery	Printing paper	1,000
	Binders	1,000
Airtime		2,000
Data collection	Internet	5,000
Production of the documents	Printing	1,000
	Photocopying	2,000
	Binding	1,000
Transport		5,000
Data analysis		10,000
Total		28,000

APPENDIX VI: ETHICS APPROVAL LETTER

9th May 2024

Ms. Nyakundi Eva,

eva.kerubo@strathmore.edu

Dear Ms. Nyakundi,



RE: The Effect of Business Process Management on Financial Performance of Supermarkets in Nairobi County

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC2114/24**. The approval period is from **9th May 2024 to 8th May 2025**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents, including informed consents, study instruments, and MTA, will be used.
- ii. All changes, including amendments, deviations, and violations, are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events, whether related or unrelated to the study, must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU- ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days before the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU- ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

Mr. Ambrose Rachier, Chairperson; SU-ISERC

APPENDIX VII: RESEARCH LICENSE

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 555097	Date of Issue: 30/June/2023
RESEARCH LICENSE	
	
This is to Certify that Miss.. Eva Nyakundi of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: The Effect of Business Process Management on Financial Performance of Supermarkets in Nairobi County for the period ending : 30/June/2024.	
License No: NACOSTI/P/23/27010	
555097 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Verification QR Code	
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	
See overleaf for conditions	

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014), hereinafter referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology, and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies, and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics, and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities, as well as outcomes, shall be beneficial to the country and shall not in any way;
 - i. Endanger national security
 - ii. Adversely affect the lives of Kenyans
 - iii. Be in contravention of Kenya's international obligations, including the Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
 - iv. Result in the exploitation of the intellectual property rights of communities in Kenya.
 - v. Adversely affect the environment
 - vi. Adversely affect the rights of communities
 - vii. Endanger public safety and national cohesion
 - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location, and specified period.
4. The license and any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission, the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commission, er and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.

8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the licensee, including cancellation without prior notice.
12. Research, findings, and information regarding research systems shall be stored or disseminated, utilized, or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of national strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention, or patent of strategic importance to the country.
15. The Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology, and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke