THE IMPACT OF ELECTRIC POINT OF SALE (EPOS) SYSTEM ON SUPPLY CHAIN COORDINATION CASE STUDY: MEGA STANDARD SUPERMARKET

LUCKY PEACE LAMARO

S23B12/023

A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF BACHELOR OF PROCUREMENT AND LOGISTICS MANAGEMENT OF UGANDA CHRISTIAN UNIVERSITY

May, 2026

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

DECLARATION

I, **Lamaro Lucky Peace**, hereby declare that this research report titled "The Impact of Electronic Point of Sale (POS) Systems on the Coordination of Supply Chain of Retail Businesses with Reference to Mega Standard Supermarket" is my own work and has not been submitted to any higher institution in the achievement of any academic qualification.

All the information cited in the study has been adequately referenced.

Signature: .....

Date: 7th/5/2026.....

APPROVAL

This Research on the Impact of the Electronic Point of Sale system on Supply Chain Coordination, (Mega Standard Supermarket) has been presented for examination by Lamaro Lucky Peace (S23B12 /023) with my approval and is ready to be presented to the School of Business for the Award of a bachelor's degree in Procurement and Logistics Management of Uganda Christian University.

Signature..... Date 07/05/2026

MR. TUMUHAMYE DUNCAN

(Academic Supervisor)

DEDICATION

This study is devoted to my loving parents, whose constant support, sacrifice, and encouragement have been very helpful in making this study successful. Their motivation and confidence in my capacity have been a motivational factor throughout my studies. This study is also dedicated to my supervisor, whose guidance, patience, and academic support were extremely helpful during this study. And this study is dedicated to everyone who has helped and motivated me in my studies to be great in procurement and logistics management

ACKNOWLEGEMENT

First and foremost, I give my warm and sincere appreciation to God Almighty for the ability, knowledge, wisdom, and endurance He has given to me throughout the study. I thank Him also for His continued guidance and support, which have seen me through difficulties till the completion of this study.

I am greatly indebted to my supervisor, who gave me encouragement, patience, and professional advice throughout the preparation of this research. Your criticisms and suggestions help in bringing this work to its present state. I also express my gratitude to Mega Standard Supermarket and the staff for their cooperation and assistance that helped in the completion of this research.

Last, but not least, I thank my family, friends, and loved ones for their great encouragement, patience, and support in my studies. It was through you that my hope did not waver. Also, thank my colleagues for their encouragement and the time they shared in the preparation of this research study.

LIST OF ABBREVIATIONS

EPOS	Electronic Point of Sale
SCC	Supply Chain Coordination
ICT	Information and Communication Technology
SPSS	Statistical Package for Social Sciences
RBV	Resource-Based View
TAM	Technology Acceptance Models
VMI	Vendor Managed Inventory

TABLE OF CONTENTS

DECLARATION i

APPROVAL ii

DEDICATION iii

ACKNOWLEGEMENT iv

LIST OF ABBREVIATIONS v

ABSTRACT x

CHAPTER ONE 1

1.0 Introduction 1

1.1Background of the Study 1

1.2 Statement of the Problem 2

1.3 Purpose of the Study 3

1.4.Objectives of the Study 3

1.5 Research Questions 3

1.6 Significance of the Study 3

1.6.1 Managers of Retail Businesses 3

1.6.2 Policy Makers 4

1.6.3 Academic and Researchers 4

1.6.4 Suppliers and Distributors 4

1.7.0 The Study's Scope 4

1.7.1 Geographic Range 5

1.7.2 Content Scope 5

1.7. 3 Time Scope 5

1.8 Justification of the Study 5

1.9 The Conceptual Framework 6

CHAPTER TWO: 9

LITERATURE REVIEW 9

2.1 Introduction 9
2.2 Theoretical Review 9
2.2.1Resource-Based View (RBV) 9
2.2.2 Technological Acceptance Model (TAM) 9
2.2.3 Supply Chain Coordination Theory 9
2.3 Empirical Review 10
2.3.1Impact of the information-sharing capability of electronic POS systems on supply chain coordination. 10
2.3.2 Impact of inventory replenishment support provided by electronic POS systems on supply chain coordination. 12
2.3.3 Impact of stock control efficiency enabled by electronic supply chain coordination 15
CHAPTER THREE: 18
THE METHODOLOGY 18
3.0 Introduction 18
3.1 Research Design 18
3.2 Area of Study 18
3.3 Study Population 18
3.4 Sample Size Determination 19
3.5 Sampling Techniques 19
3.6 Population and Sample Size Determination 20
3.7 Sources of Data 20
3.8 Methods of Data Collection 20
3.9 Validity of the Instrument 21
3.10 Reliability of the Instrument 21
3.11 Data Analysis 21
3.12 Ethical Considerations 21
CHAPTER FOUR 22

DATAPRESENTATIONANALYSIS AND INTERPRETATION OF FINDINGS.....22
4.1 Introduction.....22
4.2 Response Rate.....22
4.3 Demographic Characteristics of Respondents.....22
4.3.1 Age Distribution.....22
4.3.2 Gender Distribution.....23
4.3.3 Education Level.....24
4.3.4 Job Role / Designation.....24
4.3.5 Length of Service.....25
4.4 Reliability Analysis.....25
4.5 Impact of Information-Sharing Capability of EPOS Systems on Supply Chain Coordination.26
4.6 Impact of Inventory Replenishment Support of EPOS Systems on Supply Chain Coordination.....28
4.7 Impact of Stock Control Efficiency of EPOS Systems on Supply Chain Coordination.....30
4.8 Supply Chain Coordination at Mega Standard Supermarket.....32
4.9 Inferential Statistics: Pearson's Correlation Analysis.....33
4.10 Qualitative Findings from Open-Ended Questions.....34
4.10.1Benefits of EPOS systems on daily operations.....34
4.10.2 Challenges in EPOS Systems Usage.....35
4.10.3 Proposed improvements.....35
4.11 Interpretation of findings.....35
4.11.1 Information-Sharing Capability and Supply Chain Coordination.....35
4.11.2 Inventory Replenishment Support & Supply Chain Coordination.....36
4.11.3 Stock Control Efficiency & Supply Chain Coordination.....36
CHAPTER FIVE:.....37
DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS.....37
5.1 Introduction.....37

5.2 Discussion of Findings 37
5.2.1 Information-Sharing Capability 37
5.2.2 Inventory Replenishment Support 38
5.2.3 Stock Control Efficiency 38
5.3 Conclusions 38
5.3.1 Conclusion on the Information-Sharing Capability. 38
5.3.2Conclusion on Inventory Replenishment Support. 39
5.3.3 Conclusion on Stock Control Efficiency. 39
5.4 Recommendations 39
5.4.1 Recommendations to Mega Standard Supermarket Management 39
5.4.2 Recommendations to Technology Vendors and System Providers 40
5.4.3 Recommendations to Policy Makers 40
5.4.4 Recommendations for Suppliers and Distributors 41
5.5 Limitations of the Study 41
5.6 Areas for Further Research 41
5.7 Contribution of the Study 42
REFERENCES 43
APPENDICES. 46
QUESTIONNAIRE 46

ABSTRACT

This study looked into how electronic point of sale systems affected the coordination of the supply chain in a retail business, specifically, the Mega Standard Supermarket in Kampala, Uganda. The study's three main goals were to ascertain how the supply chain's coordination was impacted by the EPOS systems' information-sharing capabilities, inventory replenishment support, and stock management efficacy.

This study used a case study research design and a quantitative research methodology. 52 respondents completed questionnaires to provide data, which were further examined using the SPSS software, both inferential statistics (correlation analysis) and descriptive statistics (frequencies, percentages, averages, and standard deviations) were used. The results showed a statistically significant positive association between supply chain coordination and the POS systems' ability to share information and their stock control effectiveness. Supply chain coordination was found to have a statistically negligible link with inventory replenishment support, notwithstanding their favorable relationship.

In summary, suggestions were made for improved system integration, provision of comprehensive training, and ensuring reliable ICT infrastructure since even though the use of EPOS systems, which provide real-time data regarding stocks, helps in proper coordination of the supply chain, their role had been restricted by various factors, such as lack of system integration with suppliers and inadequate infrastructure

CHAPTER ONE

1.0 Introduction

With an emphasis on Mega Standard Supermarket, this chapter presented the research on how electronic Point of Sale (POS) systems affected supply chain coordination in retail establishments. The problem statement, objectives, and research questions were clearly stated. This chapter also discussed the scope and importance to relevant parties. It ended with a conceptual framework depicting the connection between the system features and supply chain integration.

1.1Background of the Study

On a global scale, supply chain management is an essential function that helps businesses become efficient and competitive. Efficient coordination of activities within the supply chain requires information flow. Technological advancements, especially in electronic Point of Sale systems, have facilitated better tracking of sales figures by retailers and improved decision making (Laudon, Kenneth C. & Laudon Jane P., 2020; McKinsey & Company, 2021). Studies have shown that the use of EPOS technology improves demand visibility, reduces the bullwhip effect within the supply chain, and facilitates coordination between retailers and suppliers.

As a result, many retailers across the world leverage EPOS performance. In emerging markets, the retail industry has grown considerably due to urbanization and increasing demand (Martin Christopher, 2016; Hau L. Lee, 2002). This growth has increased the need for efficient supply chain systems supported by digital technologies. EPOS systems are increasingly used in modern retailing (e.g., supermarkets) to enhance transaction operations. Yet, despite the adoption, many retailers in the developing world still don’t fully leverage EPOS systems for supply chain coordination, because of issues like low technology skills, lack of infrastructure support, and funding.

The retail industry is a critical driver of growth in Uganda's economy, with supermarkets serving as the connecting links between suppliers and consumers. The research focused on Mega Standard Supermarket, as part of a thriving retail, there was proof of stock-

outs, delayed deliveries, and variations in inventory level. These refute the notion that supply chain coordination has not yet completely benefited from EPOS systems; therefore, the purpose of this study was to evaluate how Mega Standard Supermarket's supply chain coordination was affected by electronic point-of-sale systems.

1.2 Statement of the Problem

Successful supply chain coordination is essential for retailers to deliver product availability, manage inventory and respond to customer needs in a competitive retail environment (Martin Christopher, 2016; Chopra Sunil & Meindl Peter, 2019). The increasing use of technology, including electronic Point of Sale (POS) systems, has revolutionized retail operations through real-time data collection, visibility of inventory levels and data analysis (Laudon Kenneth C. & Laudon Jane P., 2020; Sheffi Yossi, 2020). These are essential for improving supply chain coordination by enabling timely and accurate information exchange among partners.

However, research indicated that some retail organizations failed to leverage EPOS systems for strategic supply chain collaboration. Although EPOS systems provide real-time sales and inventory insights, these data are often not effectively used to support forecasting, replenishment and supplier communication. This left some companies facing problems such as stock-outs, overstocks and late replenishment, even in the presence of digital technologies. This was more evident in emerging markets where the lack of digital literacy, infrastructure and system integration limited the use of EPOS systems (Kraus Sascha et al., 2021; Verhoef Peter C. et al., 2021).

In the case of the Mega Standard Supermarket, which was the subject of this research, electronic Point-of-Sale (POS) systems were employed to support purchase transactions and simple inventory control. Yet, there was scant empirical research on how they are used to improve supply chain coordination, for example in areas like real-time information sharing with suppliers, inventory replenishment and demand forecasting.
As a result, despite the use of EPOS systems, issues including stock imbalances, product restocking delays, and inadequate coordination with supply chain partners still arise. In light of this, this study examined how POS system features affected supply chain

coordination at Mega Standard Supermarket with an effort to shed light on how they may be applied more successfully to improve supply chain efficiency.

1.3 Purpose of the Study

The purpose of this study was to examine the Impact of Electronic POS systems on Supply Chain coordination at Mega Standard Supermarket.

1.4. Objectives of the Study

1) To examine the impact of the information-sharing capability of electronic POS systems on supply chain coordination at Mega Standard Supermarket.
2) To examine the impact of inventory replenishment support provided by electronic POS systems on supply chain coordination at Mega Standard Supermarket.
3) To examine the impact of stock control efficiency enabled by electronic POS systems on supply chain coordination at Mega Standard Supermarket.

1.5 Research Questions

a) What is the impact of the information-sharing capability of electronic Point of Sale (POS) systems on supply chain coordination at Mega Standard Supermarket?
b) What is the impact of the inventory replenishment support provided by electronic Point of Sale (POS) systems on supply chain coordination at Mega Standard Supermarket?
c) What is the impact of the stock control efficiency enabled by electronic Point of Sale (POS) systems on supply chain coordination at Mega Standard Supermarket?

1.6 Significance of the Study

Numerous parties involved in the supply chain and retail industries will gain from the study's conclusions. Retail business managers, legislators, scholars, researchers, suppliers and distributors are some of these stakeholders.

1.6.1 Managers of Retail Businesses

By emphasizing the benefits of EPOS systems, such as real-time sales monitoring, automated inventory management and report production, this study will benefit shop managers at Mega Standard Supermarket. Managers are able to keep inventory levels under control and steer clear of overstocked and out-of-stock items. Additionally, the

study will shed light on how the EPOS data may be utilized to track product performance, predict client demand, and work with suppliers to schedule prompt product replenishment.

1.6.2 Policy Makers

This research will help government agencies and policy makers to better understand the role of digital technologies and information systems in improving the efficiency of retail operations. This will help establish the benefits of EPOS systems in managing stock, coordinating between the retailer and supplier and improving business transparency. This knowledge will help policymakers develop policies and programs to promote the uptake of digital technologies among Ugandan small and medium sized enterprises (SMEs) through gaining digital efficiencies in retail business, help to enhance productivity, retail and supply chain coordination and retail competitiveness.

1.6.3 Academic and Researchers

This research seeks to add to the body of knowledge in the fields of Information Systems, and it fills the gap in research on EPOS use in retail businesses in developing countries such as Uganda and provides insights for future studies on the use of technology and supply chain integration in emerging markets.

1.6.4 Suppliers and Distributors

The findings of this study would assist the suppliers and distributors in comprehending the impact of EPOS systems. The correct data on consumption collected through the EPOS systems integration gives valuable information on demand and consumption trends, which makes production planning, logistics, and delivery more efficient. Therefore, there is no shortage or surplus of stocks, making the process smoother and promoting business relationships.

1.7.0 The Study's Scope

This was considered in terms of time, subject matter, and location.

1.7.1 Geographic Range

The Mega Standard Supermarket in Kampala, Uganda, was used in this study. This supermarket was chosen to be a suitable case study since it conducts its operations in a modern retail environment using the electronic Point of Sale (EPOS) technology in stock control and sales. In addition, the interactions of the supermarket with distributors and suppliers made it perfect research setting in which to analyze the impact of EPOS technology on supply chain coordination in retail.

1.7.2 Content Scope

The study investigated the impact of retail supply chain coordination on EPOS. The study considered critical factors that influenced information exchange with suppliers, quick replenishment with suppliers, and stock management. The study also examined critical factors that influenced the impact of EPOS on coordination, including management support, supplier responsiveness, internet availability, and the information and communication technology literacy of employees.

1.7.3 Time Scope

This study analyzed the current use and influence of the EPOS systems in coordinating the supply chain management processes of retail companies during the last five years. It was deemed relevant to use this period because many retail companies had adopted modern technologies within the last few years to improve their business activities and comply with the requirements of effective retail management systems.

1.8Justification of the Study

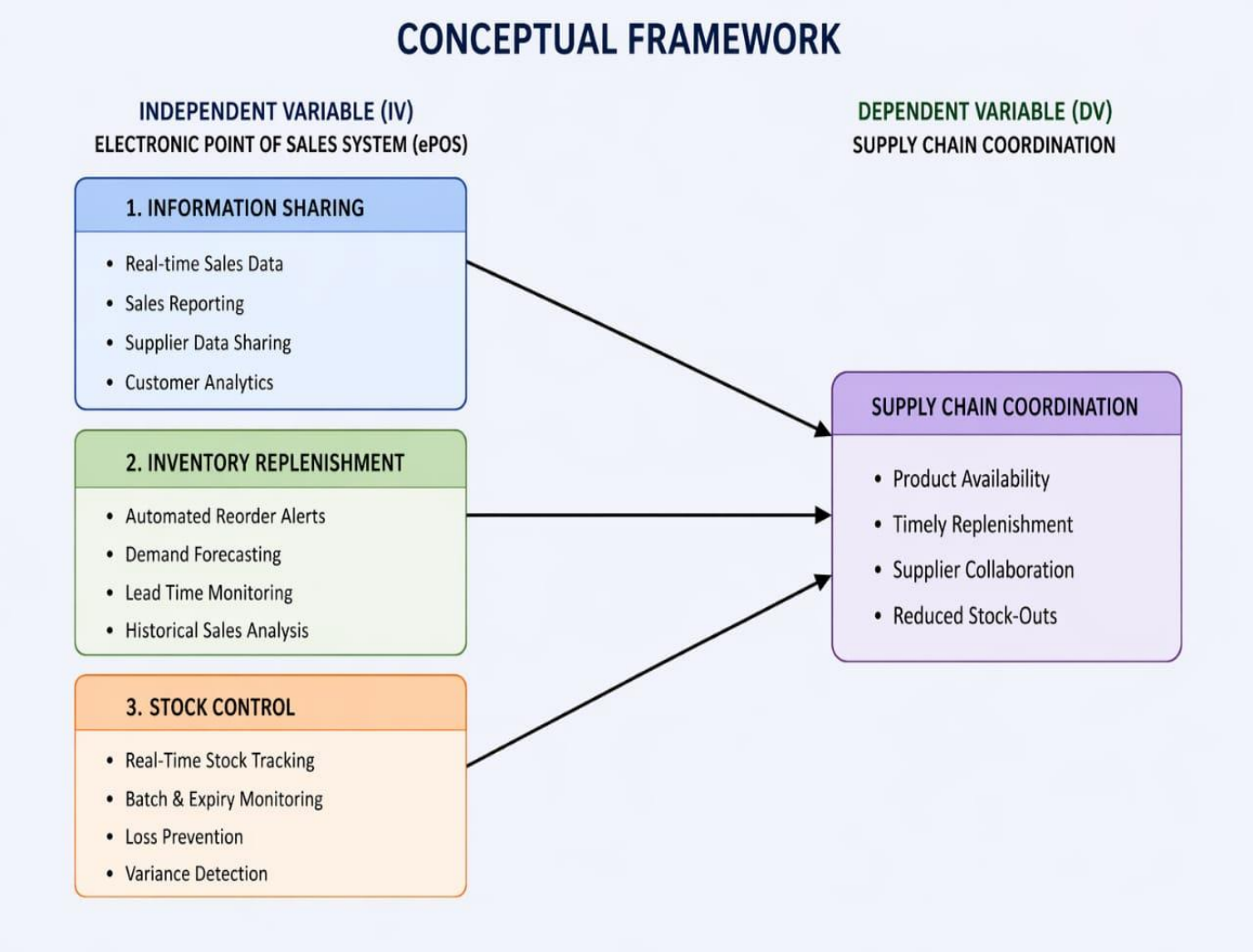
The research was necessary due to the need for digitalization within retail businesses which allows for increased supply chain coordination and efficiency. Electronic Point of Sale (POS) systems provide up-to-date sales information and inventory records which are vital for decision making, better inventory management, and coordination among suppliers (Ivanov et al., 2021; Kamble et al., 2020; Abolghasemi et al., 2021). This creates a research gap where there is need for further empirical studies focusing on the role of Point of Sale (POS) systems in improving supply chain processes from a business perspective, particularly within less advanced technological settings. The recent empirical evidence also shows that integration of the EPOS system increases accuracy of inventory, minimizes inventory mistakes, and makes retail supply chains

agile (Landge et al., 2026; Kayode et al., 2025). Thus, it was clear that real-time visibility could be achieved through proper integration of EPOS and inventory management systems, leading to efficient and flexible supply chain management. POS systems have become increasingly popular in retail businesses within Uganda to enable activities such as stock monitoring, fast billing, and analysis of business performance.

But while this was the case, there was little empirical research on how POS systems affect supply chain coordination in retail enterprises in developing countries like Uganda. The majority of research has been conducted in large firms and technologically advanced developing countries, and there was limited research on how POS systems influenced key supply chain processes such as real-time data collection, information exchange, inventory replenishment, and stock control efficiency at the firm level (Queiroz et al., 2021; Abolghasemi et al., 2021). In addition, research on SMEs in the Ugandan retail industry was limited, even though the use of electronic retail systems is increasing in this sector. As such, this research explored the effects of electronic POS systems on supply chain coordination at Mega Standard Supermarket.

1.9 The Conceptual Framework

conceptual framework is a diagram that shows the relationships between the variables being studied. It provides a description of how independent variables affect the dependent variable and what factors may influence it. In this study, the conceptual framework showed how the features of the electronic Point of Sale (EPOS) system (independent variable) impacted supply chain coordination (dependent variable) in retail stores in the Mega Standard supermarket.



Definition of Key Terms

Point of Sale (POS) System: This is an electronic system used in retail stores for capturing sales data, payments, and real-time inventory management. Kenneth C. Laudon and Jane P. Laudon (2020) defined POS systems as systems that collect transaction information and store the data for processing and decision making. This implies that POS systems play an important role in increasing efficiency in retail businesses since they help to precisely track sales and facilitate fast decision-making, particularly in inventory control and demand forecasting.

Supply Chain Coordination: Is an approach towards coordinating and integrating the efforts of all supply chain partners such as suppliers, distributors, and retailers for

increasing efficiency and effectiveness. Furthermore, it is noted that coordination enables better product movement, reduces delays, and promotes greater satisfaction. This implies that by guaranteeing timely product availability, cutting down on operational inefficiencies, and eventually raising customer satisfaction, efficient coordination among supply chain participants enhances overall supply chain performance.

Information Sharing Capability: Refers to the capability of a system, such as an EPOS system, to produce and disseminate real-time information to supply chain partners. Likewise, Dubey et al. (2021) argued that real-time data sharing promotes collaboration between retailers and suppliers and uncertainty reduction in demand forecasting. This suggests that having a strong information sharing capability improves supply chain responsiveness and visibility, allowing businesses to better coordinate activities throughout the supply chain and forecast demand.

Inventory Replenishment: This is a system's capability to help firms restock demand. Silver, Pyke, and Thomas (2017) state that replenishment systems help maintain inventory to satisfy customers demand and further demonstrated that technology-based replenishment systems help increase product availability and prevent stock-outs in the retail sector. This suggests that efficient inventory replenishment systems, which guarantee continuous product availability while reducing the danger of stock-outs and overstocking in retail operations, are crucial for maintaining ideal stock levels.

The effectiveness of a business in tracking, managing, and controlling stock to reduce waste and maintain stock record accuracy is known as Stock Control Efficiency. Heizer, Render, and Munson (2020) indicated that effective stock control systems reduce waste, stock shortages, and increase stock accuracy. This implies that by guaranteeing accurate inventory records, reducing losses, and facilitating better inventory management decision-making, effective stock control systems enhance operational performance.

CHAPTER TWO:
LITERATURE REVIEW

2.1 Introduction

This chapter examined research on how electronic Point of Sale (POS) systems affected supply chain coordination in Mega Standard Supermarket. It discussed major theories and research on the effects of digital technologies on the supply chain.

2.2 Theoretical Review

2.2.1Resource-Based View (RBV)

According to the Resource-Based View, having uncommon, precious, and unique resources gives businesses a competitive edge (Barney, 1991). Electronic point-of-sale systems are considered technological resources in this study, when utilized appropriately; they support Mega Standard Supermarket through improved inventory management, supply chain coordination and information exchange, and increased operational effectiveness and competitiveness.

2.2.2 Technological Acceptance Model (TAM)

According to Davis (1989), the Technology Acceptance Model is a hypothesis that explains how people embrace and utilize technology by emphasizing its perceived utility and usability. In this case, EPOS systems' ability to improve supply chain coordination depends on how well Mega Standard Supermarket staff members embrace and use the system. The system is more likely to be adopted and used successfully if staff members find it helpful and simple to use, which improves coordination and decision-making.

2.2.3 Supply Chain Coordination Theory

For efficiency and cost savings, supply chain partners must coordinate their actions, information, and decision-making (Kaminsky & Simchis-Levi, 2021). By providing real-time information to promote communication and collaboration between Mega Standard Supermarket and suppliers, electronic point-of-sale (POS) systems enable prompt restocking, demand forecasting, and inventory management.

2.3 Empirical Review

2.31 Impact of the information-sharing capability of electronic POS systems on supply chain coordination.

Empirical research highlighted the value of information visibility, quality, and timeliness in enhancing supply chain coordination, demonstrating the significance of information sharing in improving supply chain coordination. According to groundbreaking research by Hau L. Lee, V. Padmanabhan, and Seungjin Whang (2000), one of the reasons for the bullwhip effect in which demand variability rises as knowledge flows upstream in the supply chain was a lack of information exchange, this suggests that inadequate information flow skews demand signals, increasing order variability and creating chain-wide inefficiencies. Additionally, they demonstrated that increased coordination and reduced demand variability were the outcomes of greater information exchange. This result implies that by enhancing the flow and timeliness of market information across supply chain participants, information exchange functions as an enabling mechanism stabilizes both demand and promotes coordination.

Similarly, Cachon and Fisher (2000) showed that sharing real-time sales and inventory data between suppliers and retailers enables better supply chain coordination, reduced costs, and replenishment decisions. Therefore, by coordinating expectations and decision-making between suppliers and retailers, real-time data exchange improves replenishment efficacy and lowers operational inefficiencies. On a related note, Disney and Towill (2003) found out that organized exchange of information, which includes the time period for order lead, enhances order synchronization and creates supply chains that are flexible and robust. It implies that scheduling problems in the process of placing orders and delivering goods are minimized if all involved parties exchange planning information in a systematic and organized fashion.

A more recent study has backed up the importance of technology in enhancing information flow. According to Yu, Yan, and Cheng (2001), when firms have access to real-time information, forecasting, and coordination, they can respond to actual demand and not forecasted demand. Thus real-time, digitally enabled information

enhances supply chain actors' coordination and increases the accuracy of demand understanding, enabling them to modify planning and replenishment decisions based on observed demand patterns rather than projected assumptions. Kim and Lee (2010) also suggested that the benefits from information sharing are enhanced by information systems integration and trust in supply chain relationships, which both lead to better coordination. This suggests that in order to achieve better coordination and collaborative performance, information sharing effectiveness depends not only on technical integration but also on the degree of trust among supply chain partners.

Additionally, recent research highlighted how digital technologies affected supply chain transparency. Technology-enabled information exchange reduces uncertainty and improves responsiveness, Hau L. Lee (2002), which suggests that the use of technology-enabled information systems improves supply chain agility by enabling businesses to react to shifts in demand faster while reducing operational and planning uncertainty. Further research by Dejonckheere et al. (2004) demonstrated that exchanging demand data enhances forecasts and promotes collaborative decision-making. This suggests that including demand data throughout the supply chain can improve operational performance by strengthening alignment among supply chain participants and reducing information distortions. Additionally, Gavirneni, Kapuscinski, and Tayur and Croson and Donohue (2006) demonstrated how information-sharing techniques improve the integration of supply and demand systems and lessen demand distortion.
This means that efficient information-sharing systems are essential for reducing the bullwhip effect by matching supply to real demand, which enhances coordination and the overall effectiveness of the supply chain. In addition, according to Patnayakuni and Seth (2006), the use of appropriate integrated information systems increases the quality of information and communication, thus facilitating supply chain coordination. This means that the use of integrated information systems increases the level of communication and accuracy of information, which facilitates supply chain coordination.

Thus, it is necessary to note that EPOS systems become crucial tools for enhancing information flow in the retail industry. Sales and inventory data are collected by EPOS systems, and this data can be used by suppliers to estimate demand, make replenishment forecasts, order inventory more quickly, and improve their collaboration and respond to orders faster. Mega Standard Supermarket expected that EPOS systems helped facilitate information flow by providing quick sales data for enhancing coordination between the supplier and the retailer. Furthermore, the use of EPOS reduced inventory uncertainty as it became possible to recognize goods which moved quicker on the market and order them. Nevertheless, the role played by EPOS in enhancing coordination in the supply chain might be limited if it was used only for transaction processing purposes.

2.3.2 Impact of inventory replenishment support provided by electronic POS systems on supply chain coordination.

Replenishment is an important operational management process that influences supply chain coordination, availability of goods, and effectiveness of costs. Several studies indicated that replenishment practices were extremely sensitive to demand information. Cachon & Fisher (2000) explained that replenishment plans based on common demand information had the ability to drastically improve supply chain efficiency by increasing order precision and reducing inefficiencies at various supply chain levels. In this way, the use of common demand information in making replenishment decisions can be seen as a way of enhancing coordination at various supply chain levels and thus improving order accuracy and reducing inefficiencies. In another study, Aviv (2001) found out that coordinating replenishment with demand resulted in increased efficiency since it facilitated coordination between manufacturing and distribution operations with demand conditions. It indicates how coordinating production and distribution operations with demand helps improve efficiency when replenishment decisions are made with respect to real demand.

Further to the above, Chen, Drezner, Ryan, and Simchi-Levi (2000) showed that through centralised and shared demand information, it is possible to mitigate the bullwhip effect since this lowers the variation in demand.
This is another way of showing how the application of shared and centralised demand data mitigates supply chain instability caused by demand variations.
It also emphasizes how lowering such variability reduces the bullwhip effect, resulting in more reliable ordering patterns and better supply chain coordination overall. The authors concluded that with open information flowing across the supply chain, replenishment orders are more stable and forecast accuracy is enhanced. This is proof of how the free flow of information through the supply chain enhances the effectiveness and stability of the forecast in replenishment decisions, while simultaneously showing that better collaboration within the supply chain is facilitated by the constant and reliable exchange of information, reducing disruptions.

Following this, Chen et al. (2000) stated that other techniques of forecasting, including the use of exponential smoothing and moving average methods, also help stabilize replenishment since they get rid of any unnecessary variability in orders. This highlights the importance of the usage of proper forecasting techniques in increasing stability in the process of replenishment by reducing order variability. This further highlights the importance of proper techniques such as exponential smoothing and moving average, which minimize demand distortions and create stable flows of inventories. Similarly, Disney and Towill (2003) also confirmed that coordinated ordering policies with common information reduce lead times, reduce variability in demand, and increase responsiveness to customer demand. This demonstrates that the implementation of coordinated ordering strategies backed by shared information enhances supply chain performance by reducing lead times, stabilizing demand trends, and improving businesses' capacity to successfully address client's needs. Likewise, real-time data integration enhances replenishment accuracy by linking inventory management to consumption, thus reducing safety stock and the uncertainty that is caused by the unknown. This highlights how incorporating real-time data into inventory decisions allows businesses to depend on actual consumption trends rather than forecasts, which

results in more accurate stock planning and lessens the need to have excess inventory on hand as a safety net against unpredictability.

The results from the emerging markets also showed that using an automation system can bring replenishment more efficiently and accurately. Ondiek's (2015) study found that an automation inventory management system, which removes stock imbalance and enables higher stock- replenishment accuracy and improved efficiency through accurate information-driven replenishments, was found to contribute towards minimizing error and the overall inventory visibility, which further improved the coordination between the retailers and the supplier. This illustrates how using automated inventory systems increases operational efficiency by improving stock visibility and reducing errors, which makes it possible for suppliers and retailers to coordinate more successfully through dependable replenishment procedures. Other studies of Kache and Seuring (2017) and Wamba et al. (2017) also suggested that digital technology applications such as SAP (Systems, Applications, and Products in Data Processing) and Artificial intelligence are effective in improving demand forecasting and allow automatic replenishments, through processing historical and current data to forecast future demand and enable better demand and supply integration, as a way to reduce stockouts and overstocking.

Empirical studies also provided insights that coordinated replenishment strategies like vendor-managed inventory (VMI) are able to help achieve optimal replenishment. Sahin and Robinson (2002) stated that VMI can reduce the total supply chain performance since it resolves information asymmetry and misalignment of incentives issues between suppliers and retailers that result in suboptimal inventory decisions. This is an illustration of how VMI improves supply chain performance through shifting the replenishment role from buyers to suppliers. It plays a major role in bridging information gaps between decision-makers within the supply chain, leading to better decisions and coordination. Based on recent research by Wang et al. (2016) and Ivanov et al. (2019), intelligent digital supply chains that use data information for real-time decision-making have been found to improve coordination by eliminating surplus inventory and rapid response. This illustrates how the adoption of intelligent digital

supply chain systems improves coordination by facilitating more precise inventory planning, cutting down on needless stock levels, and enabling businesses to react quickly to shifts in demand.

Replenishment at Mega Standard Supermarket was also impacted by storage capacity, supplier responsiveness and demand fluctuations. By providing real-time sales data to facilitate prompt and effective restocking, the EPOS was anticipated to simplify replenishment. This reduced out-of-stock problems and enhanced supplier collaboration by helping to identify high turnover items and facilitating restocking based on actual demand rather than projections. However, the advantages of EPOS-based replenishment depended on the level of supplier responsiveness and system acceptance, since the advantages of electronic integration was compromised by manual procedures.

2.3.3 Impact of stock control efficiency enabled by electronic supply chain coordination

Achieving the proper inventory balance and coordinating supply chain operations depend heavily on effective stock control. According to research, ineffective stock management (stockouts or surplus stock) raises operating expenses and disrupts the supply chain. Mweshi, Shikaputo, and colleagues (2022) reported that stock mismatches create supply and demand imbalances, which result in production and distribution inefficiencies and in turn, compromise supply chain coordination. This demonstrated how stock level imbalances cause manufacturing and distribution processes to become inefficient, which in turn erodes efficient supply chain coordination.

Technology-based inventory systems have been proven to enhance stock control practices. Immadisetty (2023) showed that real-time inventory systems improve stock accuracy by providing continuous monitoring of stock levels and minimizing stock differences. The example clearly shows how stock visibility allows organizations to have more precise inventories since they can spot any changes in stock and address them instantly. Similar findings were reached by Ivanov and Dolgui (2021) who argued that

digital inventory and real-time information systems help improve supply chain coordination and make the network more resilient through faster and more informed decisions. In other words, real-time information integration is bound to increase supply chain responsiveness and coordination since it permits managers to react immediately to supply or demand fluctuations, decrease decision-making time, and increase flexibility in case of disruptions.

There is other empirical research that proved the significance of real-time visibility in stock control. According to the conclusions drawn by Qiurong, Jian, et al. (2020), a real-time monitoring system may facilitate greater visibility for inventories and assist firms to adjust their actions based on demand variation and perform replenishment coordination more successfully. Consequently, real-time monitoring technologies help to optimize the effectiveness of supply chain by providing more opportunities for observing inventory volumes. In this way, the organization will be able to forecast changes in the demand pattern and perform replenishment activities in a much more efficient and fast manner. Not only the findings, but also research performed by Zhang, Zhao, & Xie (2021) revealed the role played by an advanced stock control system in improving performance indicators such as the level of service, turnover and order rate. Thus, it becomes clear that a stock control system optimized by real-time inventory visibility helps improve organizational performance and conduct stock replenishment and purchasing activities more effectively.

This study was consistent with findings by Immadisetty (2023), whose findings indicate that stock control systems powered by information systems provide better decisions by virtue of having real-time information about stocks. This illustrates how access to accurate and up-to-date information regarding inventory levels can enhance decision making by reducing uncertainty and increasing knowledge of appropriate measures. In addition, research on intelligent inventory management systems showed that connecting POS data to analytics systems helps in automated monitoring and ordering processes. This indicates how the process of managing inventories can become automated when POS systems are linked with analytics systems, resulting in reduced

manual effort for monitoring inventory levels. Thus, this approach reduces the risk of errors, increases data accuracy and facilitates supply chain coordination. Retail research confirmed that POS systems are critical to providing accurate and timely inventory information, allowing constant monitoring of stock levels and timely adjustment.

For Mega Standard Supermarket, efficient stock control was crucial as it has a high turnover of goods, limited space for stock, and variable demand. EPOS systems were anticipated to enhance stock control through real-time stock monitoring and stock recording. This enabled the supermarket to achieve efficient stock levels, avoid out-of-stock items, and reduce slow-moving stock, which resulted into reduced losses and better stock performance. As a result, stock control efficiency allows effective coordination of the supply chain through demand-supply alignment. But if the EPOS system is largely focused on processing transactions without integration with other stock control and inventory management functions, its capacity to enhance stock control and coordination may not be fully exploited

CHAPTER THREE:
THE METHODOLOGY

3.0 Introduction

This chapter outlined the research methodology that was employed in the study on the effects of electronic Point of Sale (POS) systems on supply chain coordination of retail organizations, with a focus on Mega Standard Supermarket. This chapter described the research design, study area, population of the study, sample size and sampling method, data sources and collection methods, data collection instrument, and its validity and reliability.

3.1 Research Design

A case study design with a quantitative approach was used for the study. This design was suitable because it enabled an intensive study of a phenomenon in its natural setting. Babbie (2014) stated that a case study allows a researcher to gain information about a specific topic that is rich and contextual. In this study, the design allowed the researcher to study the effects of electronic Point of Sale (POS) on supply chain coordination at Mega Standard Supermarket. The quantitative design enabled the collection of quantitative data using questionnaires, enabling statistical testing of correlations between variables.

3.2 Area of Study

Mega Standard Supermarket, Kampala served as the location for this research. The supermarket operates in an environment characterized by rapid movement within the retail business and high transaction rates. This area was chosen as one that may be subjected to research regarding the influence of EPOS systems on supply chain coordination due to its extensive utilization of EPOS systems in stock taking and sales recording.

3.3 Study Population

The study sample size consisted of 60 employees of Mega Standard Supermarket. As defined by Kothari (2004), the population refers to all persons or objects that a researcher wishes to investigate. The finance officers, marketing officers, inventory officers, supervisors, and cashiers were among the respondents. The reason for

selecting such respondents is because they were using electronic POS devices and were responsible for essential supply chain activities such as inventory management, supplier communication, and record keeping of sales information.

3.4 Sample Size Determination

Sample size was determined using the formula suggested by Yamane in 1967 because it was simple and precise in calculating a sample size in a small population for the desired level of accuracy. The formula, developed by Taro Yamane (1967), ensured that the sample size selected was large enough to represent the whole population by considering a certain degree of error (level of precision) and thereby reducing sampling bias, which increased the accuracy and reliability of the research results.

Calculation

Yamane's (1967) Formula

$$n = \frac{N}{1 + N(e)2}$$

Where

n = Sample Size

N = Population Size

e =Margin of error (0.05)

Ne2

60*0.05260*0.0025=0.15

1+0.15=1.15

n=60/1.15=52.17

n=52

Thus, the study had 52 respondents. This was an adequate sample size as it had a large sample of the population, which meant that the study findings were more accurate and representative.

3.5 Sampling Techniques

Simple random sampling and purposive sampling were applied in this study. Simple random sampling was used to select cashiers and other staff so that all respondents had an equal opportunity to respond. This minimized bias and increased the sample's representativeness. Managers were selected using purposive sampling due to their

expertise in electronic Point of Sale (POS) systems and supply chain. Purposive sampling was used to select respondents with expertise in each area (Patton 2002). This mix method allowed both the general and expert perspectives to be explored in the study of the impact of electronic POS systems on supply chain coordination.

3.6 Population and Sample Size Determination

Categories of Respondents	Target Population	Sample size	Sampling Techniques
Managers	10	9	Purposive
Finance Officers	8	7	Simple Random
Marketing officers	10	9	Simple Random
Inventory Officers	12	10	Simple Random
Cashiers	20	17	Simple Random
TOTAL	60	52	Mixed

3.7 Sources of Data

Both primary and secondary data were used in this study. Primary data was gathered from respondents and secondary data from journal articles, books, and other publications on electronic Point of Sale (POS) systems and supply chain coordination. This made it possible to compare theoretical and actual evidence, which increased the study's authenticity.

3.8 Methods of Data Collection

Data collection were done both from primary and secondary sources using a quantitative approach. Primary data were obtained using questionnaires. These were collected quantitative data via closed-ended questions measured on a Likert scale, enabling the data to be easily quantified and analyzed. Secondary data were gathered from a review of sources, including research articles, textbooks, reports, and previous studies. This

approach helped to understand the context and interpretation of the primary data results.

3.9 Validity of the Instrument

Validity is the degree to which the research instrument measures what it is supposed to. It helps to ensure that the information being gathered is valid and relevant to the research question, (Babbie, 2014; Kothari, 2004; Kumar, 2019; Creswell, 2018). In the current study, validity was achieved by developing questions that were related to the variables studied. So, validity was ensured to avoid the collection of irrelevant data and to ensure the research findings were true to the problem at hand.

3.10 Reliability of the Instrument

Reliability is the degree to which a research instrument can be used to measure a result with consistent results across multiple trials (Babbie, 2014; Kothari, 2004; Kumar, 2019; Sekaran & Bougie, 2016; Creswell, 2018).When an instrument is reliable, the data is presumed to be accurate with minimal errors. Reliability is crucial in this study as it guaranteed the consistency of responses, which in turn increased the trust in the results of the study.

3.11 Data Analysis

The data were analyzed using quantitative methods using SPSS. Data were coded and analyzed using descriptive statistics (frequencies, percentages, means, and standard deviations) to describe the respondents. Correlation and regression analyses have been used as inferential statistics to test the relationship between the electronic point-of-sale systems' functionality and supply chain coordination. Correlation analysis was used to determine the degree and nature of the relationship, while regression analysis helped to establish the effect of the independent variables on the dependent variable.

3.12 Ethical Considerations

The study strictly followed ethics. Information on the purpose of the study was incorporated into the research. Volunteers were used as respondents in this research study. Their privacy and anonymity were guaranteed to safeguard their personal details.

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presented data presentation analysis and interpretation of findings of the study on the effect of the electronic Point of Sales (EPOS) system on supply chain coordination at Mega Standard Supermarket. The data were obtained from 52 respondents through a questionnaire and analyzed with descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (Pearson's correlation). The chapter was structured according to the three unique objectives of the study: the influence of information-sharing capability, inventory replenishment support, and stock control efficiency of EPOS systems on supply chain coordination. The chapter also provided a discussion in relation to previous empirical findings reviewed in Chapter Two.

4.2 Response Rate

A total of 52 questionnaires were sent to the selected respondents at Mega Standard Supermarket, and all 52 questionnaires were returned, resulting in a 100% response rate. This excellent response rate was achieved by distributing questionnaires and follow-ups during the data collection period. Mugenda and Mugenda (2003) consider 50% response rate acceptable, 60% good, and 70% and above as very good. Therefore, the study's 100% response rate was excellent and supported the validity and reliability of the findings.

4.3 Demographic Characteristics of Respondents

The profiles of the respondents included their age, gender, position, years of employment at Mega Standard Supermarket, and educational background, were presented in this chapter. These specifics were essential to comprehending how respondents used EPOS systems at work.

4.3.1 Age Distribution

The ages of the respondents are displayed in Table 4.1. 27 (51.9%) of the respondents were between the ages of 18 and 25, followed by 17 (32.7%) who were between the ages of 26 and 35, and 7 (13.5%) who were older than 36. Age information for one of the respondents was not provided. It was found out that Mega Standard Supermarket

has relatively young employees, who may be more familiar with digitalization and can easily adapt to new technologies such as EPOS.

Table 4.1: Age Distribution of Respondents

Category	Frequency	Percentage (%)
18 – 25 years	27	51.9%
26 – 35 years	17	32.7%
36 years and Above	7	13.5%
Not Specified	1	1.9%
Total	52	100%

4.3.2 Gender Distribution

The distribution of the respondents' genders is indicated in Table 4.2. Out of the total 52 respondents, 27 respondents (51.9%) were male, while 24 respondents (46.2%) were female, and only one respondent (1.9%) was neither male nor female. The fairly balanced split enhances the reliability of the results because it implies the store hires an equal number of men and women.

Table 4.2: Gender Distribution of Respondents

Category	Frequency	Percentage (%)
Male	27	51.9%
Female	24	46.2%
Not Specified	1	1.9%
Total	52	100%

4.3.3 Education Level

The educational attainments of the respondents were indicated in Table 4.3. Thirty-two (61.5%) of them possessed a degree. Those who had certificates (12 or 23.1%), diplomas (5 or 9.6%), and master's (postgraduate) degrees (2 or 3.8%) followed. Meanwhile, one respondent did not provide any information regarding his/her educational attainment. It can be noted that many of the respondents have been educated, possibly making them able to understand information in the supply chain.

Table 4.3: Education Level of Respondents

Category	Frequency	Percentage (%)
Certificate	12	23.1%
Diploma	5	9.6%
Degree	32	61.5%
Master's Degree	2	3.8%
Not Specified	1	1.9%
Total	52	100%

4.3.4 Job Role / Designation

The roles of the respondents are listed in Table 4.4. Inventory officers made up the greatest percentage of responders (n = 17, 32.7%), followed by managers (n = 8, 15.4%), cashiers (n = 6, 11.5%), marketing officers (n = 13, 25.0%), and finance officers (n = 7, 13.5%). Data was not provided by one respondent. This displayed a wide range of workers who use EPOS systems for inventory management, sales processing, and supply chain coordination.

Table 4.4: Job Role / Designation of Respondents

Category	**Frequency**	**Percentage (%)**
Manager	8	15.4%

Finance Officer	7	13.5%
Marketing Officer	13	25.0%
Inventory Officer	17	32.7%
Cashier	6	11.5%
Not Specified	1	1.9%
Total	52	100%

4.3.5 Length of Service

Table 4.5 displays the duration of service at Mega Standard Supermarket. Thirty (57.7%) of the respondents had been employed for one to three years. A total of 6 respondents (11.5%) worked for less than 1 year, 9 (17.3%) had 4-6 years, and 5 (9.6%) worked for over 6 years. Two respondents did not report their length of service. Many respondents had reasonable tenure (1-3 years), and it was likely that they were familiar with systems in the supermarket, including EPOS.

Table 4.5: Length of Service of Respondents

Category	Frequency	Percentage (%)
Less than 1 year	6	11.5%
1 – 3 years	30	57.7%
4 – 6 years	9	17.3%
Above 6 years	5	9.6%
Not Specified	2	3.8%
Total	52	100%

4.4 Reliability Analysis

Cronbach's Alpha (α) reliability was used to measure the internal consistency of the scales. Table 4.6 shows reliability. The information-sharing capability scale had α =

0.634, the inventory replenishment support scale α = 0.589, stock control efficiency α = 0.446, and supply chain coordination α = 0.590. Nunnally (1978) and George and Mallery (2003) suggested that a Cronbach's Alpha between 0.6 and 0.7 is acceptable, with values greater than 0.7 being good. The information-sharing capability scale and supply chain coordination scale were closed to acceptable levels. While the stock control efficiency scale had a lower alpha (0.446), this was due to the small number of items in the scale and the fact that different staff members had different perceptions. Given the nature of the present study as being exploratory and the small sample size, the reliability values were acceptable in this study.

Table 4.6: Cronbach's Alpha Reliability Coefficients

Variable	No. of Items	Cronbach's Alpha (α)
Information-Sharing Capability	5	0.634
Inventory Replenishment Support	5	0.589
Stock Control Efficiency	5	0.446
Supply Chain Coordination	4	0.590

4.5 Impact of Information-Sharing Capability of EPOS Systems on Supply Chain Coordination

This section discussed the findings from Objective 1: To investigate the influence of the information-sharing capability of electronic POS systems on supply chain coordination at Mega Standard Supermarket. Five statements were assessed on a five-point scale (1 = Strongly Disagree to 5 = Strongly Agree). A mean score of 3.50 or above is agreed, 2.50-3.49 is neutral, and below 2.50 is disagree.

Table 4.7: Information-Sharing Capability of EPOS Systems

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean (SD)
POS provides real-time sales information that positively impacts coordination with suppliers	7.8%	-	21.6%	51.0%	19.6%	3.75 (1.04)
POS systems improve communication between the business and suppliers, enhancing supply chain coordination	9.8%	5.9%	3.9%	49.0%	31.4%	3.86 (1.22)
POS systems enable accurate demand forecasting, which positively impacts coordination with suppliers	3.9%	5.9%	27.5%	39.2%	23.5%	3.73 (1.02)
POS systems reduce uncertainty in ordering decisions, thereby improving supply chain coordination	-	8.0%	20.0%	38.0%	34.0%	3.98 (0.94)
POS systems facilitate the timely sharing of inventory information, which enhances coordination with suppliers	3.9%	3.9%	15.7%	37.3%	39.2%	4.04 (1.04)

The descriptive statistics for the five items measuring the EPOS systems' information-sharing capability are shown in Table 4.7. The composite mean for this section was 3.87 (SD = 0.67), which is considered 'agree', suggested that respondents agreed that EPOS

systems had a positive effect on supply chain coordination via sharing of information. The item ‘POS systems allow timely sharing of inventory information, which facilitates coordination with suppliers’ had the highest mean (M = 4.04, SD = 1.04), and 76.5% of respondents were in agreement or strong agreement. This meant sharing timely inventory information was the most strongly perceived benefit of EPOS systems for supply chain coordination. Likewise, the item eliminating uncertainty in purchasing decision-making also had a high mean (M = 3.98, SD = 0.94), with 72.0% in agreement or strong agreement.

Better communication with suppliers had a mean of 3.86 (SD = 1.22), and real-time sales information had a mean of 3.75 (SD = 1.04). The item on demand forecast had the lowest average (M = 3.73, SD = 1.02), with 27.5% of respondents undecided. This indicated that although the majority of respondents recognized the information-sharing advantages of EPOS, they saw that the demand forecasting feature of EPOS as relatively less valuable, perhaps because of the lack of integration of POS data with forecasting systems.

According to the results, Mega Standard Supermarket was effectively utilizing EPOS for operational coordination (particularly inventory visibility and supplier engagement), but it hasn’t yet made the whole leap to strategic data use (such forecasting and planning). There is a possibility that such supermarkets will benefit significantly from the development of this area, as seen by using EPOS with forecasting or educating the employees on the decision-making process with regard to data. The supermarkets also noted that the use of EPOS systems encourages cooperation and exchange of information even in the underdeveloped countries' retail industry.

4.6 Impact of Inventory Replenishment Support of EPOS Systems on Supply Chain Coordination

This part focuses on Objective 2: Evaluate the influence of the replenishment support system for inventories by using the electronic point-of-sales on the supply chain coordination in Mega Standard Supermarket. Table 4.8 presents the results for five questions about inventory replenishment.

Table 4.8: Inventory Replenishment Support of EPOS Systems

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean (SD)
POS systems help identify when stock needs replenishment, which improves coordination with suppliers	5.9%	5.9%	9.8%	43.1%	35.3%	3.96 (1.11)
POS systems improve the accuracy of replenishment orders, thereby enhancing supply chain coordination	2.0%	3.9%	13.7%	51.0%	29.4%	4.02 (0.88)
POS systems reduce delays in restocking, which positively impacts coordination in the supply chain	2.0%	7.8%	11.8%	58.8%	19.6%	3.86 (0.89)
POS systems support timely stock replenishment, improving coordination with suppliers	2.0%	7.8%	15.7%	51.0%	23.5%	3.86 (0.94)
POS systems help maintain optimal stock levels, which enhances supply chain coordination	9.8%	2.0%	11.8%	43.1%	33.3%	3.88 (1.19)

The mean for the total support for inventory replenishment section was 3.92 (SD = 0.62). This means that the majority of the participants agreed that EPOS systems improve supply chain coordination and facilitate inventory replenishment. For instance, the item that received the highest mean score (M = 4.02, SD = 0.88) is "POS systems

increase the accuracy of replenishment orders, thus improving supply chain coordination." Therefore, reducing the supply-demand gap by increasing order accuracy became one of the main benefits of using EPOS systems in inventory replenishment.

Moreover, 78.4% of the participants agreed with the statement about knowing the time to refill (M = 3.96, SD = 1.11). In addition, about 70–75% of the respondents agreed with the following statements: "POS systems expedite restocking (M = 3.86, SD = 0.89)" and "POS systems enable rapid replenishment (M = 3.86, SD = 0.94)." However, the highest standard deviation value (SD = 1.19) appeared in the item about keeping the best stock levels, suggesting that there is more disagreement than agreement. The reason is that each department operates in its unique way.

This indicated that the company was effective in implementing the EPOS technology to boost inventory replenishment efficiency and effectiveness. Nonetheless, consistent application of the system, proper integration of replenishment practices, and possibly some employee training on managing the inventory could help in optimizing stocks for the entire store.

4.7 Impact of Stock Control Efficiency of EPOS Systems on Supply Chain Coordination

This section reports the findings for Objective 3: To investigate the effect of stock control efficiency due to electronic Point-of-Sales (POS) systems on supply chain coordination at Mega Standard Supermarket. Five items related to stock control were rated as presented in Table 4.9.

Table 4.9: Stock Control Efficiency of EPOS Systems

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean (SD)
POS systems improve the accuracy of stock records,	2.0%	5.9%	7.8%	56.9%	27.5%	4.02 (0.88)

which positively impacts supply chain coordination						
POS systems reduce stock losses, thereby enhancing coordination with suppliers	-	5.9%	13.7%	54.9%	25.5%	4.00 (0.80)
POS systems enable real-time inventory tracking, which improves supply chain coordination	-	2.0%	17.6%	39.2%	41.2%	4.20 (0.80)
POS systems help identify slow-moving products, which supports better coordination in supply chain decisions	-	2.0%	21.6%	49.0%	27.5%	4.02 (0.76)
POS systems reduce stockouts, which positively impacts supply chain coordination	2.0%	4.1%	16.3%	44.9%	32.7%	4.02 (0.92)

The composite mean score for the stock control efficiency section of 4.05 (SD = 0.47) was the highest of the three independent variable sections, and all items scored above 4.00, suggested that respondents were in strong agreement that EPOS systems had a positive impact on stock control efficiency and hence supply chain coordination.

POS systems provide real-time inventory systems, which enhance supply chain coordination, had the highest mean for the study (M = 4.20, SD = 0.80), with 80.4% of respondents in agreement or strong agreement, and none in disagreement or strong disagreement. This demonstrated that real-time stock tracking was seen as the most effective stock control feature of EPOS systems at Mega Standard Supermarket.

The next four items all received the same score of M = 4.02 with accuracy of stock records (SD = 0.88), reduction of stock losses (SD = 0.80), identification of slow-moving

products (SD = 0.76), and reduction of stock outs (SD = 0.92). The low standard deviations of the items in this section, compared to Sections B and C, indicate a stronger agreement among respondents about the stock control advantages of EPOS systems.

The results pointed to Mega Standard Supermarket as a major force behind better supply chain coordination since it has effectively used EPOS systems to increase stock control effectiveness. Stock control seems to be the most fully optimized sector when compared to other tasks like information sharing and replenishment, offering a strong basis for future enhancements in other supply chain components.

4.8 Supply Chain Coordination at Mega Standard Supermarket.

Section E of the survey instrument gauged the level of the dependent variable (supply chain coordination) through four items. Results are shown in Table 4.10.

Table 4.10: Supply Chain Coordination at Mega Standard Supermarket

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean (SD)
There is effective information flow between the business and suppliers	2.0%	2.0%	21.6%	47.1%	27.5%	3.96 (0.87)
There is good alignment between supply and customer demand	4.0%	-	18.0%	44.0%	34.0%	4.04 (0.95)
The business responds quickly to changes in customer demand	2.0%	3.9%	17.6%	47.1%	29.4%	3.98 (0.91)
There is strong collaboration and good relationships with suppliers	2.0%	4.0%	10.0%	42.0%	42.0%	4.18 (0.92)

Overall, the mean score of supply chain coordination was 4.04 (SD = 0.61), implying that most respondents viewed supply chain coordination positively at Mega Standard

Supermarket. The highest mean score belonged to the item measuring strong collaboration and effective relationships with suppliers (M = 4.18, SD = 0.92). Eighty-four percent of respondents indicated their agreement or strong agreement with the statement. It implied that there were effective supplier relationships in place at the supermarket, which played an important role in supply chain coordination.

Information exchange and collaboration between the business and its suppliers were rated M = 3.96 (SD = 0.87). Alignment between supply and demand was rated M = 4.04 (SD = 0.95), while quick responsiveness to changes in customer demand was rated M = 3.98 (SD = 0.91). More than seventy percent of respondents agreed or strongly agreed with all the statements.

4.9 Inferential Statistics: Pearson's Correlation Analysis

For testing the relationships between EPOS system characteristics and supply chain coordination, Pearson's correlation analysis was performed. Results of the test are presented in Table 4.11

Table 4.11: Pearson's Correlation between epos Capabilities and Supply Chain Coordination

Variable	R	p-value	Interpretation
Information-Sharing Capability → SCC	0.377	0.006**	Moderate positive
Inventory Replenishment Support → SCC	0.239	0.091	Weak positive
Stock Control Efficiency → SCC	0.378	0.006**	Moderate positive

Note: Significant p < 0.01 (two-tailed). SCC = Supply Chain Coordination.

From the results of the correlation analysis, information sharing was positively and significantly correlated with supply chain coordination (r = 0.377, p = 0.006). The statistically significant positive correlation indicated that an improvement in the

capability of information sharing performed by the EPOS system can positively influence supply chain coordination. It meant that this result was highly significant statistically at the 1% level of probability, which confirmed that information sharing with the EPOS system can significantly affect supply chain coordination.

Inventory replenishment support displayed a positive but non-significant correlation with supply chain coordination ($r = 0.239$, $p = 0.091$). In spite of the expected positive correlation between the two variables based on theoretical considerations, their correlation was not statistically significant because the calculated p-value exceeded 0.05. It was assumed that replenishment in Mega Standard Supermarket depends on other conditions or external factors such as supplier responsiveness, rather than just the efficiency of inventory replenishment support provided by EPOS.

There was a positive and significant relationship between stock control efficiency and coordination within the supply chain ($r = 0.378$, $p = 0.006$). Stock control efficiency was the second most important predictor of supply chain coordination after information sharing. This showed that stock control with the help of an EPOS system by way of inventory tracking, stock loss minimization, and detection of non-moving products plays a very important role in supply chain coordination.

4.10 Qualitative Findings from Open-Ended Questions

Apart from the quantitative questions, section F of the questionnaire comprised of three open-ended questions where the participants were invited to state their views about the practical uses of EPOS systems in relation to the challenges involved and how these challenges could be overcome.

4.10.1Benefits of EPOS systems on daily operations

The interviewees raised a variety of practical benefits of EPOS systems; the commonly raised benefits included the tracking of inventory in real time, faster transactions, better sales reports, tracking sales demands, and reduced human error. ‘It gives you a day-to-day, weekly, or monthly report stating what items are selling fast, peak selling hours, and sales revenue, etc. This would help to make informed decisions for the business, a respondent said. ‘It enables automated sales tracking and updates inventory in real-time, hence allows one to know exactly what is sold and what is in stock without

any manual counts.' 'Said another one. This confirmed that the quantitative findings that the EPOS system helps to enhance operational efficiency, share information, and control stock at Mega Standard Supermarket.

4.10.2 Challenges in EPOS Systems Usage

The most mentioned problem was poor internet connectivity, followed by downtime and power outages. It was also clear that not many staff members possess enough IT skills to fully benefit from the features available. Integration problems with suppliers' systems were also found, and respondents say, Lack of integration with suppliers' systems' and 'poor interaction between the system and suppliers' systems. The resistance to change from staff, lack of user-friendliness, and high system maintenance costs were other issues cited. These results correlate with the correlation findings, especially why the support SCC-replenishment relationship was weaker, which explained the integration deficiency between EPOS and suppliers' systems, so the full advantage of coordination benefits derived from replenishment features.

4.10.3 Proposed improvements

Proposed improvements in the EPOS system included improving integration with suppliers, more reliable internet access and system speed, staff training and capacity building, adding a real-time automated order alert on stock availability, offline operation of the system, and a user-friendly interface. 'Add automatic data sharing between the system and suppliers,' said one of the respondents, while another one requested more real-time alerts for stock shortages and delivery delays.

4.11 Interpretation of findings

4.11.1 Information-Sharing Capability and Supply Chain Coordination

The study found that there was a statistically significant positive relationship between the information-sharing capability of the EPOS system and supply chain coordination ($r = 0.377$, $p = 0.006$). With a mean of 3.87, respondents indicated that EPOS systems provide information on real-time sales, reduce ambiguity, and allow the flow of timely inventory information. The findings were similar to the work of Lee, Padmanabhan, and Whang (2000), which argued that real-time information sharing would alleviate the bullwhip effect and enable supply chain coordination and reduces uncertainty in demand forecasts. The result of this section was justified by both RBV theory (Barney,

1991) and Technology Acceptance Model (Davis, 1989), which proposed that EPOS was a utilized and effective technology resource.

4.11.2 Inventory Replenishment Support & Supply Chain Coordination

Inventory replenishment support was positive but non-significantly related to Supply Chain Coordination (r=0.239, p=0.091). The composite mean of 3.92 implied that generally EPOS systems aid in replenishment, but this was not significant, possibly due to the limitations discussed in the qualitative section. For instance, limited integration with the supplier system limited its effectiveness in replenishing products with suppliers using a POS system. This finding was moderately similar to Ondiek's (2015) study in automation of inventory control helps in accurate replenishment inretail stores, but it also echoed the limitations discussed by Handfield and Nichols (2015) in infrastructure and system integration with regard to developing country retail stores. The Supply Chain Coordination Theory argued that end-to-end links are necessary for replenishment-based coordination (Simchi-Levi, 2021); however, the systems at Mega Standard Supermarket are currently lacking this linkage.

4.11.3 Stock Control Efficiency & Supply Chain Coordination

Stock Control Efficiency showed the highest means (M=4.05) and was significant and positive with Supply Chain Coordination (r=0.378, p=0.006). All the items loaded into this factor were rated as generally agreed with. This meant that stores at Mega Standard believed that the EPOS system helped with the accuracy of stock records, real-time tracking of inventory, reducing losses in the supply chain, and helped to identify slow-moving products. These findings agreed with Ivanov and Dolgui (2021), who suggested that a real-time information system contributes to increased stock accuracy and supply chain robustness. The single most agreed statement in the whole study came from this factor- EPOS systems make tracking of inventory real-time (M=4.20). According to the RBV, the stock control capabilities of EPOS systems constitute a core technological competence that enables a firm to gain a competitive advantage through supply chain operations.

CHAPTER FIVE:
DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The study results are presented in this chapter, along with recommendations for different stakeholders and conclusions based on the three particular research topics. It also discussed the limitations of the study and made recommendations for potential future lines of inquiry.

5.2 Discussion of Findings

The study investigated how supply chain coordination was affected by electronic Point of Sale (POS) devices at Mega Standard Supermarket in Kampala, Uganda. A total of 52 respondents were surveyed using a structured questionnaire. Three research questions were posed and answered: (i) impact of EPOS systems' information-sharing capability on supply chain coordination, (ii) impact of EPOS systems inventory replenishment support on supply chain coordination, and (iii) impact of EPOS systems stock control efficiency on supply chain coordination.

5.2.1 Information-Sharing Capability

There was a statistically significant positive relationship between information-sharing capability and supply chain coordination ($r = .377$, $p < .01$).The overall composite mean score was 3.87, indicated that respondents agreed that EPOS systems facilitate communication with suppliers, generate real-time sales data, and reduce uncertainty about ordering and information about inventories in stock at a specific point in time. Timeliness of sharing information of stocks (M=4.04) and real-time information of stocks available (M=3.95) were the highly rated components of information-sharing capability. The lowest rated part was sales analysis/demand forecasting (M=3.73), indicated that the function has not yet been put to best use. Qualitative evidence confirmed that information was what respondents highly value with the POS systems, and the information was critical for their decision-making; however, the function of the EPOS system for information sharing has been hindered by poor internet access and limited integration with supplier platforms.

5.2.2 Inventory Replenishment Support

The analysis revealed a significant but negative relationship between inventory replenishment support and supply chain coordination (r=0.239, p>0.05). The mean score for inventory replenishment support was 3.92, indicated that respondents agreed that EPOS systems aid in identifying the stock that should be ordered and in ordering accuracy, as well as in minimizing restocking delays. The highest mean score in this variable was the accuracy of replenishment orders (M=4.02). The findings of the study indicated that the impact of inventory replenishment support provided by the EPOS systems to the supply chain coordination is hindered by a lack of linkage between the EPOS system and the supplier management system, and there is a need for manual information transfer to get that effect on the supply chain.

5.2.3 Stock Control Efficiency

Stock control efficiency showed a strongly significant positive relationship with the supply chain coordination (r = .378, p < .01). The highest composite mean score was found for stock control efficiency (M=4.05), and it was also the only variable with all components' mean scores greater than 4.0. The highest rated component of the variable was accuracy of stock control (M=4.20), which also emerged to be the highest ranked component of all the questionnaire parts. This result implied that it was the stock control function where the benefits of EPOS systems can be felt at Mega Standard Supermarket the most.

5.3 Conclusions

5.3.1 Conclusion on the Information-Sharing Capability.

The information-sharing capability of EPOS systems does significantly influence the coordination process within the supply chain in Mega Standard Supermarket. The findings indicated a statistically significant positive relationship between the two variables because EPOS systems made it possible to timely communicate sales and stock information, which minimizes demand variability and hence improves the coordination with supplier(s). This result was aligned with the Resource-Based View and Supply Chain Coordination Theory that highlighted the importance of information resources in achieving competitive and coordinative advantage. However, it appeared that the full

information-sharing capability of the EPOS system cannot be fully leveraged due to weak internet infrastructure and insufficient integration with the supplier system.

5.3.2Conclusion on Inventory Replenishment Support.

While it was generally true that the inventory replenishment support from the EPOS system had positively affected supply chain coordination, this relationship was not statistically significant within the context of Mega Standard Supermarket. The result revealed that staff recognized the existence of EPOS based replenishment functions like 'need of restock alert' and 'improvement in accuracy of ordering', however, its effect on supply chain coordination cannot reach statistical significance because inventory replenishment function was only one part of the whole supply chain process and the support from EPOS has not be properly integrated into the supply chain coordination process since no strong link was present between EPOS data and supplier's inventory system, hence it was indirectly influenced by other factors within Mega Standard Supermarket's inventory management and replenishment process. Thus, this effect was only partial and dependent.

5.3.3 Conclusion on Stock Control Efficiency.

Stock control efficiency gained from the use of the EPOS system significantly affected supply chain coordination in Mega Standard Supermarket. The results found that the utilization of stock control efficiency features, such as accurate real-time stock keeping, higher stock record accuracy, minimizing loss of stock, and enabling rapid identification of slow-moving items, leading to better supply chain coordination. Mega Standard Supermarket mainly depends on this aspect of epos functions.

5.4 Recommendations

5.4.1 Recommendations to Mega Standard Supermarket Management

In order to automate the real-time exchange of purchase orders, delivery confirmations, and replenishment requests, management should concentrate on linking their EPOS system with the communication systems of their suppliers. The previously insignificant association between supply chain coordination and replenishment support should be strengthened as a result of this integration, which would eliminate the obstacle most frequently noted in the qualitative findings. The management of the

business should also spend money on reliable internet connections, backup power supplies, and system upkeep. This will reduce the disturbances resulting from the power outage or network issues, which according to the interviewees have affected the efficient use of the EPOS systems.

In addition, management must ensure that there is training provided to each of the users of the EPOS system.Limited digital literacy was cited as one of the problems with the EPOS system; staff should be formally trained on how to benefit from the system's reporting, forecasting, and inventory management capabilities beyond the use of the POS in day-to-day transactions.

5.4.2 Recommendations to Technology Vendors and System Providers

Electronic POS systems developers/vendors targeting the Ugandan market should come up with systems that will be more robust under limited, inconsistent internet connectivity in the form of offline functionality with automatic synchronization once a stable internet connection is re-established. Also, they should ensure integration interfaces that allow EPOS systems to be integrated smoothly with other systems, such as the supplier's or enterprise resource planning (ERP) systems. Findings from this study indicated that mobile payment functionality, especially integrating with systems such as MTN Mobile Money and Airtel Money, as well as the functionality of automatic reorder alerts or a supplier notification system, will enhance the supply chain coordination value of an EPOS system.

5.4.3 Recommendations to Policy Makers

The government of Uganda should facilitate and hasten the deployment of affordable and stable internet access across business centers within urban cities by appropriate agencies such as the Uganda Communications Commission (UCC) and the Ministry of Information and Communications Technology (MoICT) to enable the smooth operation of EPOS systems by businesses. Appropriate government policies (such as incentives like subsidies or tax relief for the purchase of ICT hardware or lower interest loans) that would encourage SME retailers to adopt integrated digital supply chain systems and

digital literacy programs for staff in retail distribution businesses will complement the adoption and use of EPOS and allied technologies in Uganda.

5.4.4 Recommendations for Suppliers and Distributors

Suppliers or distributors serving Mega Standard Supermarket and similar retailers should establish or invest in integrated communication platforms that enable them to interact with their customers for real-time inventory data and replenishment. Suppliers could potentially avoid the stock shortages, which are a problem at Mega Standard, by improving their responses and delivery reliability through improved collaboration via integrated digital communication systems and enhancing overall supply chain coordination performance.

5.5 Limitations of the Study

The study was restricted to only one retail organization, Mega Standard Supermarket, located in Kampala, Uganda. It should be noted that this fact may limit the extent to which the findings are generalizable to other retail situations in other geographic locations. The study sample size of 52 respondents, though sufficient for a single case study, is small for regression analyses and may not provide statistically robust results for all inferred results, especially for the non-significant relationship between replenishment support and supply chain coordination. This study is based on the self-reported responses of respondents using the Likert-scale format and is susceptible to issues of social desirability bias, perceptual differences amongst respondents, and Cronbach's Alpha for the stock control efficiency scale (α =0.446) fell below the frequently recommended value of 0.60. A cross-sectional research design means that causal relationships cannot be inferred from correlation.

5.6 Areas for Further Research

Research replicating this study on various other retail organizations operating in diverse locations within Uganda, or even within other countries of East Africa, could assist in confirming and increasing the generalizability of the research findings. A longitudinal study design that would allow tracking of trends in supply chain coordination as EPOS systems mature and are further integrated is also recommended. Specific investigations into the impact of the direct integration of EPOS and supplier systems on replenishment coordination could be conducted using an experimental or a mixed-method design.

Investigating the moderating roles of organizational characteristics, staff digital literacy, IT infrastructure quality, and management commitment would further provide a better and deeper understanding for practitioners and policymakers in retail businesses.

5.7 Contribution of the Study

Both theoretical and practical contributions are provided by the study. Given the paucity of research on EPOS systems and supply chain coordination in Uganda, it is theoretically beneficial to apply the Resource-Based View, Technology Acceptance Model, and Supply Chain Coordination Theory to analyze EPOS system in retail operations in developing nations. Practically speaking, the findings offer evidence-based recommendations for the use and enhancement of electronic point of sale systems in retail operations to Mega Standard Supermarket management, EPOS systems vendors, suppliers, and legislators. While highlighting the limitations in replenishment coordination that call for focused improvements, the findings also demonstrated the important effects of information sharing and stock control efficiency on supply chain coordination.

REFERENCES

Babbie, E. (2014). The practice of social research (14th ed.). Cengage Learning.

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120.

Cachon, G. P., & Fisher, M. (2000). Supply chain inventory management and the value of shared information. Management Science, 46(8), 1032–1048.

Chen, F., Drezner, Z., Ryan, J. K., & Simchi-Levi, D. (2000). Quantifying the bullwhip effect in a simple supply chain. Management Science, 46(3), 436–443.

Chopra, S., & Meindl, P. (2019). Supply chain management: Strategy, planning, and operation (7th ed.). Pearson.

Creswell, J. W. (2018). Research design: Qualitative, quantitative, and mixed methods approach (5th ed.). Sage Publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340.

Dejonckheere, J., Disney, S. M., Lambrecht, M. R., & Towill, D. R. (2004). The impact of information enrichment on the bullwhip effect. European Journal of Operational Research, 153(3), 727–750.

Disney, S. M., & Towill, D. R. (2003). The effect of vendor-managed inventory (VMI) dynamics on supply chain performance. International Journal of Production Economics, 85(2), 199–215.

Handfield, R. B., & Nichols, E. L. (2015). Introduction to supply chain management (2nd ed.). Pearson.

Heizer, J., Render, B., & Munson, C. (2020). Operations management: Sustainability and supply chain management (13th ed.). Pearson.

Ivanov, D., & Dolgui, A. (2021). A digital supply chain twin for managing disruption risks and resilience. Production Planning & Control, 32(9), 775–788.

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.

Kumar, R. (2019). Research methodology: A step-by-step guide for beginners (5th ed.). Sage Publications.

Laudon, K. C., & Laudon, J. P. (2020). Management information systems: Managing the digital firm (16th ed.). Pearson.

Lee, H. L. (2002). Aligning supply chain strategies with product uncertainties. California Management Review, 44(3), 105–119.

Lee, H. L., Padmanabhan, V., & Whang, S. (2000). Information distortion in a supply chain: The bullwhip effect. Management Science, 46(3), 187–204.

Martin Christopher. (2016). Logistics and supply chain management (5th ed.). Pearson.

O. M. Mugenda., & A. G. Mugenda. (2003). Research methods: Quantitative and qualitative approaches. Acts Press.

J. C. Nunnally. (1978). Psychometric theory (2nd ed.). McGraw-Hill.

U. Sekaran., & R. Bougie. (2016). Research methods for business: A skill-building approach (7th ed.). Wiley.

Yossi Sheffi. (2020). The new (ab)normal: Reshaping business and supply chains after COVID-19. MIT Press.

E. A. Silver., D. F. Pyke., & D. J. Thomas. (2017). Inventory and production management in supply chains (4th ed.). CRC Press.

Z. Yu., H. Yan., & T. C. E. Cheng. (2001). Benefits of information sharing with supply chain partnerships. Industrial Management & Data Systems, 101(3), 114–121.

APPENDICES.

QUESTIONNAIRE

Introduction

Greetings, respondent. I am Lamaro Lucky Peace, a student at Uganda Christian University pursuing a bachelor's degree in logistics management and procurement. For my degree, I am conducting research on how electronic Point of Sale (POS) systems affect supply chain coordination at Mega Standard Supermarket. I would like you to respond honestly. Your participation in completing this questionnaire is highly valued. Please tick (✔) the appropriate box or, when necessary, provide brief answers.

The information will be treated confidentially and utilized solely for scholarly purposes.

Section A: Demographic Information

(Please tick where applicable)

1. Age Range

- 18-25 years
- 26-35 years
- 36 years and Above

2. Gender

- Male
- Female

3. Education Level

- Master
- Degree
- Diploma
- Certificate

4 What is your role in this business?

- Manager
- Finance Officer

- Marketing Officer
- Inventory Officer
- Cashier.

5. For what duration have you been employed at Mega Standard Supermarket?

- Less than 1 year
- 1 – 3 years
- 4 – 6 years
- Above 6 years

Instruction for Sections B-E

Use the following scale to show your agreement with the statements provided:
In which 1 means strongly disagree, 2 means disagree, 3 means neutral, 4 means agree, and 5 means strongly agree.

SD = Strongly Disagree
D. = Disagree
N = Neutral
A = Agree
SA = Strongly Agree

Section B: Information-Sharing Capability of POS Systems

SN	Statement	SD	D	N	A	SA
SB1	POS systems provide real-time sales information that positively impacts coordination with suppliers.					
SB2	POS systems improve					

	communication between the business and suppliers, which enhances supply chain coordination.					
SB3	POS systems enable accurate demand forecasting, which positively impacts coordination with suppliers.					
SB4	POS systems reduce uncertainty in ordering decisions, thereby improving supply chain coordination.					
SB5	POS systems facilitate the timely sharing of inventory information, which enhances coordination with suppliers.					

Section C: Inventory Replenishment Support

SN	Statement	SD	D	N	A	SA
SC1	POS systems help identify when stock needs replenishment, which improves coordination with suppliers					
SC2	POS systems improve the accuracy of replenishment orders, thereby enhancing supply chain coordination.					

SC3	POS systems reduce delays in restocking, which positively impacts coordination in the supply chain.					
SC4	POS systems support timely stock replenishment, improving coordination with suppliers.					
SC5	POS systems help maintain optimal stock levels, which enhances supply chain coordination.					

Section D: Stock Control Efficiency

SN	Statement	SD	D	N	A	SA
SD1	POS systems improve the accuracy of stock records, which positively impacts supply chain coordination.					
SD2	POS systems reduce stock losses, thereby enhancing coordination with suppliers.					
SD3	POS systems enable real-time inventory tracking, which improves supply chain coordination.					

SD4	POS systems help identify slow-moving products, which supports better coordination in supply chain decisions.					
SD5	POS systems reduce stockouts, which positively impact supply chain coordination.					

Section E: Supply Chain Coordination

SN	Statement	SD	D	N	A	SA
SE1	There is effective information flow between the business and suppliers.					
SE2	There is good alignment between supply and customer demand.					
SE3	The business responds quickly to changes in customer demand.					
SE4	There are strong collaboration and good relationships with suppliers.					

Section F: Open-Ended Questions (Interview guide)

1. How is your POS system helpful in your business operations on a daily basis?

……

……

2. What are the problems faced in managing your inventories and interacting with suppliers through the EPOS system?

……

……

3. What improvements would you suggest to make electronic POS systems more effective in your business?

……

……

Thank you for your valuable contribution!