

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF INTELLIGENCE AND SECURITY STUDIES



**THE IMPACT OF INFORMATION AND COMMUNICATION
TECHNOLOGY (ICT) ON RETAIL SECTOR PERFORMANCE. A CASE OF
TM BINDURA (Period 2021-2022)**

BY

WENSLEY. T. MUTINHIMA

(B1851032)

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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APPROVAL FORM

Topic: The impact of information and communication technology (ICT) on retail sector performance: a case of TM Bindura (period 2021-2022).

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(Signature of Chairperson)

.....

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Signed
(Author's signature)

Permanent address Zambuko Primary School
P. O. Box 195
Nyazura

Email
twmutinhima@gmail.com

DECLARATION FORM

I, Wensley. T. Mutinhima, solemnly declare that the information of this dissertation, prepared in partial fulfilment of the Bachelor of Commerce (Honors) Degree in Financial Intelligence and submitted to the Department of Intelligence and Security Studies, Faculty of Commerce at Bindura University of Science Education has not been presented, submitted or published in this nature or part. Previous works have been duly accredited and acknowledged properly.

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DEDICATION

This research project is dedicated to my parents Mr and Mrs Mutinhima who are my source of inspiration. It is their unwavering support that has driven me this far.

ABSTRACT

The study sought to investigate the impact of information and communication technology (ICT) on the retail sector performance. Research objectives were to: assess the impacts of ICT on the performance of TM Bindura, determine the role of ICT in the retail sector, ascertain the types of ICT used by TM Bindura, investigate the challenges related with the usage of ICT by TM Bindura and to recommend on the appropriate measures to be taken to overcome challenges associated with ICT usage in the retail sector. The research employed both quantitative and qualitative approach using both primary and secondary sources of gathering data. Research design was descriptive case study approach. The research used stratified random and purposive data sampling techniques and a sample size of 40 respondents. The researcher used questionnaire and interviews as instruments. The researcher used Microsoft excel to analyse and interpret data. The study revealed that electronic payment systems, bar code systems, closed circuit television and mobile devices were considered as the major types of ICT used by TM Bindura, except biometric scans. Personalisation of products, changes in labour decisions, new management systems, new labour skills and new competitive models were the roles of ICT and the major one was new competitive models. The major impact of ICT was reduced inventory costs, except improved customer satisfaction, minimised communication costs and improved convenience were considered as other impacts of ICT. The major challenge of ICT was privacy issues, excluding lack of customer data, budgetary restraints and cybercrime. The study concluded that ICT has a positive impact on the performance of TM Bindura as the usage of ICT increased so did the performance of the firm. It was also recommended that coaching clinics and ICT training must be held so that workers are well equipped with much needed information on ICT.

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CHAPTER I

INTRODUCTION

1.0 Introduction

This chapter sought to introduce the topic on the impact of ICT on retail sector performance first by looking at the background of the study, statement of the problem, research objectives, research questions, and significance of the study, assumptions, delimitations, limitations and summary of the study.

1.1 Background of the study

Information technology was coined in the 1970s. However, the core notion may be traced back to a military-industrial partnership in the development of electronics, computers, and information theory during World War II. After the 1940s, the military remained the dominant source of financing for automation research and development to replace human labour with machine power (Rajagopal, 2009). Since the 1950s, there have been four generations of computers. Each generation saw a change in hardware that was smaller but more capable of directing computer activities.

Large retailing corporations have capitalized on technology transfer to the retailing industries, which began in the mid-1970s in industrialized countries and expanded to developing countries in the 1990s (Rajagopal, 2009). Previous retailing transformations have occurred over time, providing insight into how retailing should change in the internet age. The widespread use of information and communication technology in massive retail networks across countries has resulted in direct consumer contacts and the disintermediation retailing philosophy, in which service suppliers skip intermediaries or promoters and engage directly with their clients. However, a range of organizational factors influence the performance of retailing technology.

The European retail sector is becoming increasingly reliant on technology. According to Lund, Madgavkar, Mischke & Remes (2021), around 52 percent of retail work has been

automated using current technology. Europe is one of the world's largest retail technology markets. The region was already investing heavily in retail technology. The pandemic then altered customer behaviour, making retail technology solutions more important than ever.

Currently, Europe and North America are the two most important regions for retail technology investment. From 2015 to 2020, retail technology investment in Europe increased by 10% year on year (Lund et al., 2021). During the same time period, investments in North America fell slightly. Retail investments in Europe and North America were roughly the same at the start of 2020. The COVID-19 pandemic has increased the value of European e-commerce to €331.5 billion by the end of 2020. This figure is expected to rise to €429.8 billion by 2024. This expansion is primarily driven by increased demand for SMACT technologies (social, mobile analytics cloud) and IoT in the retail sector.

The number of software engineers in Europe increased by 7% to 6.1 million in 2019, according to Lund et al., (2021). Simultaneously, by 2020, the need for IT skills in Western markets was predicted to rise by more than 10%. These patterns were expected to persist in the coming years. The demand for skilled IT professionals was outpacing the growth in the number of software developers. To fill the void, many European companies attempted to hire foreign software developers.

Emerging technologies, a burgeoning population, and rapidly increasing economies, according to Bindy (2021), are altering Africa's retail sector. By exploiting e-commerce and online e-commerce platforms, African entrepreneurs and retailers have discovered creative ways to surpass traditional Western retail patterns. Jumia, a Nigerian start-up, was the first African company to win the World Retail Awards in 2013. The e-commerce online marketplace connected local African businesses with consumers directly, allowing them to use their secure payment platform to pay for food, travel, flights, and even real estate. To their 4 million customers, they offered approximately 6,000,000 products from 13 African countries, as well as 50,000 national and worldwide brands. In addition, online expenditure in South Africa is predicted to exceed 53 billion in 2018. Nigerians, South

Africans, and Kenyans made up over half of Africa's projected 21 million internet buyers in 2017.

525 million Africans accessed the internet during the summer of 2019. Africa has more internet users (447 million) than Latin America and the Caribbean (328 million), North America (328 million), and the Middle East (174 million), despite lower internet penetration rates (Bindy, 2021). The ongoing expansion of internet connectivity across all African countries has an impact on the establishment of new e-commerce platforms and online businesses. Africa is an important market to monitor. Innovators abound in Africa. For example, between 2016 and 2018, the number of tech start-ups surged by 40%, and 22% of the working-age population is launching new firms. Rather of whining about a lack of infrastructure, African businesses are coming up with inventive ways to get things done. As a result of urbanization, a young and technologically sophisticated population, and increased infrastructure, Africa is positioned to thrive and exert global influence.

The demonetization of the Zimbabwean dollar and the establishment of multi-currency systems, with the US dollar as the most widely used currency, have resulted in a considerable economic revival in Zimbabwe in recent years (Jefferis, Chigumira & Chipumho, 2013). Despite these achievements, the economy continues to encounter challenges, the majority of which are represented in the country's macroeconomic constraints. Among the concerns are a lack of liquidity, a lack of capital inflow, a lack of manufacturing in the country, and a high cost of doing business. The liquidity crisis is characterised by cash shortages. To overcome these challenges, the Zimbabwean business community has been urged to adopt information and communication technologies (ICTs) that allow for online transactions rather than cash transactions.

According to Nhema (2016), in recent years, Zimbabwe's acceptance and use of ICTs has expanded dramatically, resulting in a major reduction in the digital divide between rural and urban areas. This is evidenced by the rapid rise of Zimbabwe's ICT indicators, such as active mobile penetration. Internet penetration had reached 90% as of December 31, 2014, and mobile penetration had reached 45%. There is also a plethora of e-services that consumers have embraced as a more convenient way to connect and collaborate. Person-to-person, person-to-business, and business-to-business transactions are all possible.

Furthermore, the same author also emphasized that mobile money transfer and a variety of broadband applications such as WhatsApp, Facebook, Twitter, and YouTube and Skype all have gained popularity.

Meikles Limited's retail arm, TM Supermarkets, is one of Zimbabwe's largest food and grocery retail brands (African Financial Digital Team, 2020). Since its founding in March 1978, TM Supermarket has grown to encompass 52 sites across the United States. The store types range from small neighbourhood supermarkets to hypermarkets, with Borrowdale and Hyper in Harare and Bulawayo, respectively, having the largest branches. South African grocery chain Pick n Pay has a 49 percent ownership in the company. TM Supermarkets has accumulated tremendous expertise since its beginnings, and has established itself as one of Zimbabwe's most trusted retail brands. TM Pick 'n Pay, a grocery shop, had a 21% drop in revenue, leading management to create methods to maintain the businesses profitable. In this context, the researcher sought to determine the impact of ICT on the retail sector's performance.

1.2 Problem statement

TM Bindura is one of the retail organizations that has benefited from the opportunities afforded by ICT, resulting in changes in consumer and work decisions, new management systems, new labour skills, new support infrastructures, and new retail competitive models. On the other hand, this firm is facing a number of ICT related challenges and issues that must be addressed. Trust, security, and privacy difficulties (Chaparro-Pelaez, Agudo-Peregrina, & Pasnoorwar, 2016), ICT adoption costs (Tsai, Lee, & Wu, 2010), and information overload are just a few instances (Jetter, Satzger & Neus, 2009). Because of the rapid rise of online shopping, some analysts expected that ICT would have a detrimental influence on physical retail space, while others doubt that physical retail space will continue to attract shoppers (Lehr & Lichtenber, 1999). As a result, the researcher set out to investigate the impact of ICT on the retail sector's performance, focusing on TM supermarket as a case study.

1.3 Research objectives

The study objectives are:

1. To assess the impact of ICT on the performance of TM Bindura.
2. To determine the role of ICT in the retail sector.
3. To ascertain the types of ICT used by TM Bindura.
4. To investigate the challenges related with the usage of ICT by TM Bindura.
5. To recommend on the appropriate measures that can be taken to fight challenges associated with ICT usage in the retail sector.

1.4 Research questions

The researcher attempted to answer the underlying questions:

1. What are the impacts of ICT on the performance of TM Bindura?
2. What is the role of ICT in the retail sector?
3. Which are the types ICT used by TM Bindura?
4. What are the challenges of using ICT by TM Bindura?
5. What are the appropriate measures that can be taken to fight the challenges associated with ICT usage in the retail sector?

1.5 Significance of the study:

To the researcher

This research was in partial fulfilment of the Bachelor of Commerce Honours Degree in Financial Intelligence at Bindura University of Science Education. The study helped the researcher to acquire knowledge and understanding the impact of information and communication technology (ICT) on the retail sector performance in Zimbabwe.

To the retail sector

The study's findings were critical to the retail sector in Zimbabwe because they helped retail firms and employees understand the impact of information and communication technology (ICT) on retail sector performance, as well as the steps that should be taken to overcome challenges associated with ICT usage in the retail sector. Because there has

been minimal research on the impact of information and communication technology (ICT) on retail sector performance in Zimbabwe, the researcher felt it was necessary to conduct the study.

To other scholars

The findings of this research would help other scholars who want to undertake studies in similar or related research topics.

1.6 Assumptions of the study

The research was based on the following assumptions:

1. The findings were reliable.
2. The information obtained by way of questionnaires was free from bias and factual.
3. The sampled data represented the target population under study as a whole.

1.7 Delimitations of the study

The study focused on the impact of information and communication technology on retail sector performance in Zimbabwe using TM Bindura as a case study from the period 2021-2022. The data was obtained from the secondary sources of gathering data over internet and primary sources. The researcher employed stratified random and purposive sampling techniques, a sample size of 40 respondents from the target population: 10 from accounting and finance department, 10 from production department, 10 from marketing department and 10 from security department.

1.8 Limitations of the study

Due to confidentiality concerns, some of the requested information was withheld. To address this issue, the researcher informed the respondents that the information they provided would be kept private and only utilized for academic purposes.

Money was also required for the study, which was used for telephoning, emailing, and printing. The researcher raised funding from relatives and friends to solve this challenge.

1.9 Summary

This chapter highlighted background of the study, statement of the problem, research objectives, research questions, delimitations of the study, assumptions of the study and as well as the limitations of the study. The next chapter will look at the introduction to the literature review. This chapter focused on theoretical and conceptual frameworks as well as empirical evidence and gap analysis.

CHAPTER II

LITERATURE REVIEW

2.0 Introduction

This chapter's goal was to undertake a literature study on the impact of information and communications technology (ICT) on retail performance. According to Hentze & Menz (2015), a literature review is a detailed description of past research on the issue under examination. It also gives a theoretical foundation for the research and aids in establishing the investigation's outcome, according to Chigunhah, Munyoro, Chimbari & Chipoyera (2018).

2.1 Theoretical Framework

In research, a theoretical framework is used to identify feasible actions or to provide a preferred approach to an idea or way of thinking (Saunders, 2003). The conceptual framework, according to Saunders (2003), is an intermediate theory that aims to connect all components of an inquiry, such as problem formulation, goal, and literature review, technique, data collection, and analysis. The researcher focused on Transaction Cost Economics (TCE) theory (Maltz, 1993; Skjott-Larsen, 2000), and Enterprise Resource Based View (RBV) theory for this study (Barney, Ketchen & Wright, 2011; Pandza, Horsburgh, Gorton & Polajnar, 2003).

2.1.1 Transaction Cost Economics (TCE) theory

According to Transaction Cost Economics (TCE) theory, the introduction of ICT leads to lower transaction costs associated with transaction management (Coase, 1937; Alchian & Demsetz, 1972; Williamson, 1975), and through effective collaboration. TCE explicitly recognizes the costs of market cooperation between economic agents and emphasizes that the primary goal of a company is to coordinate transactions efficiently (Williamson, Singer & Bloomberg, 1985). In the context of the supply chain, digitally enhanced integration capability can significantly improve transaction efficiency through increased

information sharing, communication skills, and reduction in coordination costs. This improves supply chain performance (Zhu and Kraemer, 2005). Lopez, Blasco, Partridge, Serrano & Kroemer (2013), also claimed that ICT resources affect communication. Internal and external communication, as well as coordination of efforts, are all part of this process. This makes it possible to use information more quickly and efficiently both inside and outside the company. TCE examines the role of digitally supported supply chain management in competitive contexts. The vast competitive environment is an important element of a competitive environment such as competitive entry, price changes, supplier agreements, and introduction of a new product (Ferrier, 2001). In order to improve their performance or simply to stay alive in today's world, companies must respond to changing competitive conditions and adapt their operations and operations to be competitive (Sambamurthy, Bharadwaj & Grover, 2003). When a company's operations are inefficient, it may face greater coordination needs as it is constantly influenced by competitive actions in collaboration with supply chain partners. Therefore, technologies that help reduce coordination costs are more valuable in highly competitive markets.

2.1.2 The Resource Based View (RBV) theory

According to this theory, in order to convert a short-term competitive advantage into a long-term competitive advantage, the resources must be heterogeneous and not completely transportable. This effectively leads to valuable resources that are neither scarce nor scarce without great effort, neither perfectly imitable nor substitutable. If these parameters remain unchanged, the above-average performance of the companies can be sustained through a collection of resources. According to Barney, Ketchen & Wright (2011), the RBV technique has evolved from an embryonic, emergent approach to one of the most well-known and effective ideas for characterizing explained and predicted organizational connections. The goal of RBV is to describe how technology generates value (Zhu & Kraemer, 2005). According to the RBV theory, greater corporate performance is due to valued resources or pools of resources (Barney, 1991; Peteraf, 1993). Indirectly, ICT contributes value to the business by influencing other aspects or processes, resulting in enhanced performance and, as a result, market advantages. Given this premise, research focuses on the impact of ICT on retail sector performance.

Implementing ICT aims to improve processes, particularly in terms of cost reduction and revenue generation (Mukhopadhyay & Kekre, 2002). Resource synergies in the supply chain are the source of such benefits, as evidenced by the RBV. The goal of effective SCM is that supply, production and delivery are coordinated (Barratt & Oke, 2007). For this to happen, companies must develop an enterprise-wide digital network that companies must leverage the internet networking platforms that enable real-time information sharing and better collaboration of resources throughout the supply chain (Lee, 2004).

2.2 Conceptual framework

2.2.1 The concept of ICT

ICT stands for information and communication technology, according to Ratheeswari (2018). The term ICT, according to the same source, refers to technologies that enable telecommunication-based information access. It's comparable to information technology (IT), except that it concentrates on communication technologies. The internet, wireless networks, cell phones, and other kinds of communication are all examples of this. Computer hardware and software, telecommunications and cell phones, the Internet and Web, wired and wireless networks, digital still and video cameras, robots, and other technologies are all included in ICT, according to Moursund (2015).

2.2.2 The role of ICT in the retail sector

ICT has a huge impact on business around the world, since technologies like the Internet, e-mail, and e-commerce change how people communicate and interact (Ang, Marqueset, & Bang-Steinsvik, 2012). Changes in consumption and labour decisions, as well as new management systems, labour skills, support infrastructure, and competitive models, are all influenced by technological advancements (Argandona, 2003). Networking, resource planning, communication, and marketing are all affected by information technology (Karim, 2021). In addition, the role of services in the value creation process has risen dramatically as a result of information and communication technologies. ICT is a fundamental driver of service sector innovation and development, and it offers a variety

of ways to increase productivity. Intangible services are being phased out in favour of traditional tangible services (for example online services).

Furthermore, information and communication technology enable firms to customise their products through customizable production methods, as well as facilitate contact and connection with customers through tools like collaboration platforms and e-commerce (Yapar, Bayrakdar & Yapar, 2015).

As a result of improvements in ICT (for example, networks, mobile devices, and the Internet), key parts of the retail industry, such as the value chain of manufacturing, sales, and distribution, are changing dramatically (Kern, 2018). As a result, retailers are rethinking their business strategies and ramping up their use of information technology in their operations.

As a result, retailers are rethinking their business strategies and ramping up their use of information technology in their operations. The majority of advances in the retail industry are aimed at enhancing customer service, cutting costs, and increasing productivity (Chan & Al-Hawamdeh, 2002). Retailers are embracing Internet connectivity and related technology to increase communication throughout the supply chain in order to improve customer service (Barnes-Holmes, McHugh & Barnes-Holmes, 2004). By supporting and improving corporate operations, ICT systems and methods such as sales-based ordering (SBO) and efficient consumer response (ECR) can cut costs and enhance productivity (Reynolds, Quatieri & Dunn, 2000).

In addition, because the cost of computing equipment has reduced and Internet usage has expanded dramatically, even smaller organizations can profit from the chances and advantages that ICT brings (Jones, Beynon-Davies, & Muir, 2003). According to Mackare and Jansone (2018), there were 3.89 billion Internet users on June 30, 2017. This means that the Internet is used by 51.7 percent of the world's population (estimated at 7.52 billion people in 2017). On the other hand, on 30 June 2017, Europe's Internet penetration rate was 80.2 percent, with Asia having the greatest proportion of Internet users (1.94 billion). Between 2000 and 2017, the overall number of Internet users worldwide surged by 976.4 percent (Mackare & Jansone, 2018). These figures

demonstrate how important the Internet is to merchants' business strategy. The several types of ICT utilized in the retail industry are covered in more detail below.

2.2.3 Types of ICT used in the retail sector

The supermarket brands were among the few victors during the terrible days of the Covid-19 crisis (Jadhav & Kadam, n.d). In order to stay up with swiftly changing government rules and consumer expectations, they have had to adapt their business models quickly. Prior to the epidemic, implementing new technology was a long-term strategic choice that could take months or even years to complete. Today's merchants understand that staying relevant and successful necessitates deliberate technological investment.

Supermarkets like TM Bindura use a computer system known as a 'electronic point of sale,' or EPOS, to monitor and control stock, perform sales analysis, and collect data about customers via loyalty cards that offer points for every dollar spent in the store (Maher, 2012). This information is used to analyse customer spending habits and send them offers for the types of products they purchase on a regular basis. EPOS terminals are the names given to supermarket checkouts.

However, Jadhav & Kadam (n.d), mentioned that Sainsbury is also one of the most recent UK supermarkets to promote scan & go technology. Customers can use Sainsbury's Smart Shop to scan and bag products while shopping in store by using a retailer's mobile device or by running the app on their own mobile device. Other Zimbabwean supermarkets such as TM Bindura are trying to adopt the scan-and-go concept as other supermarkets, for example in UK, Asda has made mobile scan and go available in all of its nearly 600 stores, M&S has more than doubled the number of stores offering Mobile Pay Go to over 100, and Tesco has Scan as You Shop available in nearly 600 large-format stores. Consumer adoption of the technology is increasing because it provides clear benefits such as the ability for consumers to shop with little to no staff interaction and a lower risk of staff handling their products. The shopping process is faster, it is easier to avoid contact with other shoppers, and there are fewer lines at the checkout.

TM Bindura is also one of the supermarkets like those in the United Kingdom that use the European Article Number, or EAN, or in short barcode system (Maher, 2012). The diagram below depicts an EAN barcode.

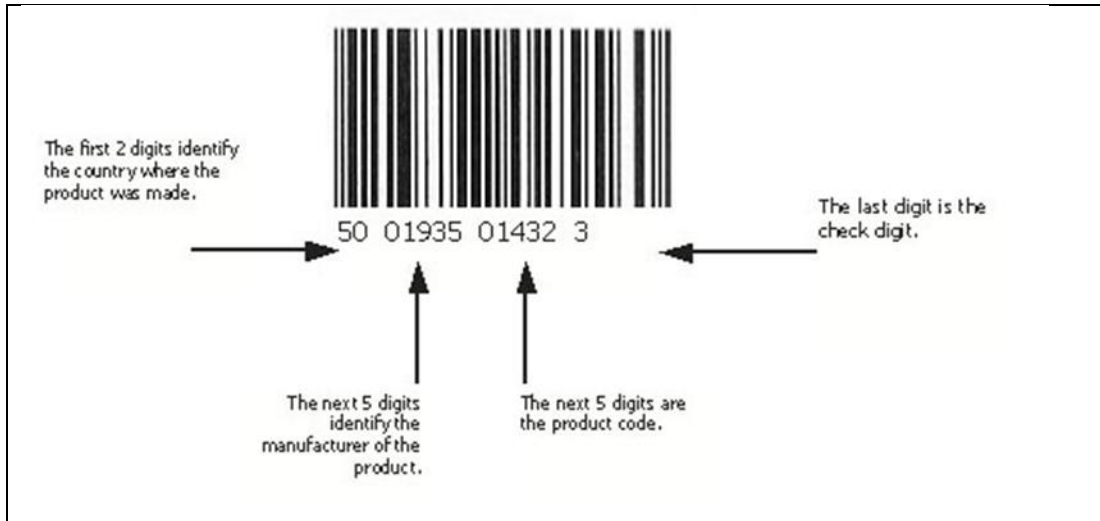


Figure 1 EAN barcode

Source: Maher (2012)

When a product is purchased, the following sequence of events occurs (Maher, 2012):

A barcode scanner is used to read the EAN number from the product

The EAN number is sent to the branch computer by the EPOS terminal

The branch computer searches the stock file for the product's price and description, which it sends back to the EPOS terminal; and the branch computer updates the stock level for the product to show that one has been sold.

The price of the product is added to the total of the products processed thus far at the EPOS terminal and printed on a receipt

When the UK entered its lockdown in March 2021, online supermarket delivery firm Ocado saw a tenfold increase in demand for its products (Jadhav & Kadam, n.d). In recent months, the company's robot-powered warehouses have been working overtime to keep online orders flowing even when its human workforce is stretched thin. The robots are delivery as well as picking and packing machines. In the warehouses they run around picking up food and bring them to a human who then packs groceries. But the firm plans

to extend these capabilities further. The company owns hundreds of patents which cover a range of automations and technologies from product-picking robots to item scanners that members of staff can wear on their heads. Ocado plans to harness this technology, and lease it, too, to supermarkets across the world.

2.2.4 Impact of ICT on the performance of retail sector

The Internet's massive growth has had a tremendous impact on the retail industry. According to Sorescu Frambach, Singh, Rangaswamy, and Bridges (2011), some businesses have even exploited the Internet to develop new markets (for example, Apple's iTunes - online music service). As a result of technical improvements, the majority of significant retail organizations have implemented a multichannel distribution system (Sorescu et al., 2011). Multichannel retailing, according to Zhang, Farris, Irvin, Kushwaha, Steenburgh, and Weitz (2010), is the collection of actions involved in selling items or services to customers across several channels, and multichannel retailers dominate the retail business. Customers can now interact with shops via a multitude of platforms thanks to multichannel retailing. Customers also visit multiple retail channels for a number of reasons. Customers can acquire product information online, buy things in a typical physical retail store, and contact customer care by phone, for example (Sorescu et al., 2011).

The Internet, social media, in-store technological solutions, and smart mobile devices (such as smartphones and tablets), according to Piotrowicz & Cuthbertson (2014), have blurred the border between physical and online channels. The Omni channel retailing approach evolves as a result of this. Omni channel retailing is a development of multichannel retailing in which all accessible channels are brought together to give a single, seamless customer experience. All distribution channels are maintained jointly, similar to the multichannel method, and the internet and physical stores are not separated. Customers can shop at any time and from any location, making the shopping experience more convenient, quick, and flexible. Omni channel retailing includes services like order online, return to store click and collect, showrooms, order in-store, deliver home, and many other combinations of traditional and online retail operations. Digital flyers, mobile payments, e-coupons, e-valets, cloud computing, digital signage, virtual screens,

intelligent self-service kiosks, virtual fitting rooms, vending machines, social media, and the QR code are just a few examples of technologies that have enabled Omni channel retailing and have had a significant impact on retail business models (Piotrowicz & Cuthbertson, 2014).

Most merchants' focus has evolved from simply selling things to creating an enjoyable customer experience by empowering and engaging customers (Sorescu et al., 2011). Retailers are trying out new ways to communicate with channel partners and customers, as well as expanding their target markets. As a result, retailing has expanded to include a wider range of activities. To give tailored products to their clients, several shops, for example, use mass customisation systems. Other retailers are utilizing technology to optimize their supply chains so that they may swiftly align their product ranges with seasonal trends (for example, Zara's fast fashion approach releases five times more collections yearly than the industry average). Furthermore, Internet merchants like Amazon.com are able to cater to a variety of niche niches because to their business model (Sorescu et al., 2011).

As a result of the growth of Internet purchasing, many retail organizations have begun to focus on niche markets and segments (Brynjolfsson, Hu & Smith 2010). Retailers profit from centralized ware housing's enhanced efficiency as well as the cheaper search costs provided by the Internet. Other retailers have altered their business structures entirely. They've updated their governance procedures and transferred the responsibility of determining the ideal depth of supporting services and product assortment to their stakeholders (suppliers and customers). Sales data received at electronic point of sale (EPOS), for example, can be utilized to plan and arrange inventory replenishment and manufacturing with suppliers (Krafft & Mantrala, 2006). Retailers, in general, use Internet and related technology (such as e-mail and videoconferencing) to increase supply chain efficiency and communication (Barnes-Holmes et al., 2004).

Information and communication technology (ICT) is especially vital for coordination, control, and communication in large (international) organizations (Finnegan & Longaigh, 2002). Databases and communication networks can help you make better decisions by allowing you to share information and data more quickly and reliably within your

organization. Technology also decreases spatial and time dependence (for example, communication between headquarters and a company in another country), and managers are no longer required to travel to participate in collaborative decision-making. In addition, information and communication technology (ICT) can aid in the streamlining of decision-making and the automation of specialized coordinating tasks. As a result, technology enables worldwide corporate operations and enhances the degree of integration between business organizations (Finnegan & Longaigh, 2002).

Communication with external factors such as logistics service providers, suppliers, and consumers, on the other hand, is just as crucial as communication within the organization. Partnerships and the ability to collaborate with other businesses and individuals are crucial to the success of a retail business. Retailers previously worked with local suppliers and warehouses. As a result of globalization and technical improvements, merchants' supply chain and logistics networks have expanded dramatically. The activities of retail organizations are growing increasingly worldwide. Because products are sourced abroad, supply chain management and logistics movements and exchanges are likewise global. As the supply chain becomes more complicated, retailers face logistical issues, as does the pressure on them to cut costs and enhance service. ICT may greatly facilitate and improve retailer communication with suppliers and other stakeholders by enabling integrated supply chain systems (Karmaker, Ahmed, Ahmed, Ali, Moktadir & Kabir, 2021).

ICT aids supply chain strategies and systems like efficient customer response (ECR) and sales-based ordering (SBO), allowing retailers to increase productivity and overall operational efficiency while cutting costs (Reynolds, Quatieri & Dunn, 2000). You can respond to demand faster with sales-based ordering. The data received when items are scanned and sold at a store is communicated with reordering and replenishment systems using this system (Karmaker, Ahmed, Ahmed, Ali, Moktadir & Kabir, 2021). Efficient customer response (ECR) is a strategy idea aimed at decreasing inefficiencies and unnecessary expenses, such as surplus inventory. ICT systems like EPOS (Electronic Point of Sale) and SBO aid in the implementation of this strategy (Kern, 2018).

In addition, information and communication technology (ICT) is critical in the delivery of commodities. The energy efficiency, scheduling, and routing of retail organizations'

transportation operations could all benefit from technological advancements (Wang, Rodrigues & Evans, 2015). Vehicle fleets, for example, can be equipped with technologies like communication devices and GPS systems to track vehicle and driver performance in real time (Karmaker, Ahmed, Ahmed, Ali, Moktadir & Kabir, 2021).

2.2.5 The challenges of using ICT in the retail sector

One of the problems of employing ICT in the retail sector, according to van Meeteren, Trincado-Munoz, Rubin & Vorley (2022), is budgetary restraints. The digital transformation of many retail firms usually concludes with an ecommerce website and sometimes an app. Retailers such as TM Bindura, on the other hand, have a plethora of alternatives to explore and deploy to properly capitalize on the benefits of digital transformation, including mobile POS, AR/VR shopping experiences, chatbots, cashier-less shops, AI-powered bots and the list goes on. The struggle to stay ahead of the competition is tough and expensive, and to some extent, some retail businesses have bigger funds than others.

One of the obstacles of integrating ICT in the retail sector is the lack of customer data. According to Gupta & Ramachandran (2021), keeping and collecting consumer data is essential for analysing purchasing behaviour and providing customized shopping based on insights in order to give the outstanding experiences that customers expect. Most of the retailers still have customer data they do not know how to mine for insights, or data that is out of date. According to Fisher (2009), 71% of consumer data is erroneous, and merchants risk losing business to competitors if they do not have accurate data, resulting in inefficient data management within the firm.

One of the problems of using ICT in the retail sector is change management. Humans are programmed to resist change, according to van Meeteren, Trincado-Munoz, Rubin & Vorley (2022). Individuals or teams that are accustomed to certain technology or ways of working are sometimes resistant to change when it comes to digital transformation in the retail sector. Unfortunately, the mind-set of doubting change or waiting until the last minute is devastating for certain retailers.

One of the obstacles of employing ICT in the retail business is cyber security. One of the most common issues faced by most if not all retailers such TM Bindura while extending

digital infrastructures for ecommerce, according to van Meeteren, Trincado-Munoz, Rubin & Vorley (2022), is safeguarding against security breaches such as data theft, phishing, and malware. Hackers are always inventing new ways to attack organizations, just as most technology have progressed.

Another problem of integrating ICT in the retail business is multiple security risks. As a result of technology improvements such as the introduction of till-less shopping and the growing popularity of contactless payments, retailers are expected to increase monitoring and maintain public safety, as well as introduce new shopping techniques, according to Gupta & Ramachandran (2021). Rising prices and narrower margins, as well as a scarcity of competent IT workers to support these new in-store capabilities, are adding to the challenges.

2.2.6 Measures that can be taken to fight challenges associated with ICT usage in the retail sector.

A lack of staff (internal) security measures is one of the issues related with ICT usage in the retail industry (Rabbi, 2009). Perhaps the most critical technology concern in company is employee security. In reality, 48% of all data breaches are the result of careless personnel (CoxBlue). Employees are exposed to phishing attempts, weak passwords, and unauthorized access to information since they carry critical data with them at all times. To mitigate this risk, a map of who has access to sensitive information on the company's computer network should be created, and access should be restricted as needed. Furthermore, it is vital to educate your staff and implement regulations such as BYOD to counteract weak passwords and phishing attempts (Bring Your Own Device Policy). People's perceptions toward security should alter (Herd, Conway, Hill, Koen, and Chalaux, 2011). Rather than seeing ICT as a problem, start seeing it as a necessity. Supermarkets should adopt a proactive approach to security. It's better to be prepared ahead of time than to wonder later, "How could we have stopped that?" Also, focus on making your business reputable and secure for your clients.

We live in a time where technology service providers are continually launching new solutions to streamline company processes and boost productivity (Herd et al., 2011). These solutions allow firms to execute complicated activities in a fraction of the time and

with a fraction of the work. However, we have several systems built on top of each other, which is typically complex, confusing, overwhelming, and chaotic, obstructing corporate productivity unknowingly. Supermarkets should simplify and streamline their digital systems to address this problem. The techniques for doing so are as follows. Any software that is no longer used by a company should be removed. This is not to say that you should just delete software from your business process at random. Instead, look at your entire system and make sure you only have what you require. Connect all platforms to create a single staff experience that can help you increase business productivity.

Data loss is a dread that most businesses have, and it has been estimated that losing 100 files may cost a firm anywhere from \$18,000 to \$35,730. (Rabbi, 2009). Data loss can be caused by a number of things, including power failures, cyber-attacks, device failure, and human mistake. However, a disaster recovery plan that incorporates the usage of a cloud-based data backup is essential for averting data loss and considerable financial loss. Using a trustworthy cloud provider with many levels of protection can allow a company to store critical data without worrying about losing it. A disaster recovery plan should include backup, disaster, and business continuity plans, as well as IT support contacts, backup servers, cloud services, and external storage.

Digital transformation entails not just software upgrades and technology adoption, but also a shift in how we work and the promotion of a digital-first culture (Herd et al., 2011). Organizations will alter in a variety of ways as a result of digital transformation. Employees that previously interacted with customers may now have more time to dedicate to technology. Retailers must ensure that their staffs are welcoming of these changes in order to be successful in their digital transformation initiatives, which will benefit both customers and employees. It is a major impediment to digital transformation. Collaborate with your HR staff to build digital experiences for your employees utilizing technology to tackle this obstacle. Remove items that slow employees down and stifle productivity so they can feel comfortable working in a new setting. Employees could be inspired by change. It should be communicated from the top down to the core of your company's culture.

2.3 Empirical evidence

The impact of ICT on the performance of retail sectors

Kithinji (2015), carried out a research on the impact of information technology on inventory management in supermarkets in Nairobi City County using a sample size of 136 supermarkets operating in Nairobi. A descriptive research design was employed in this study. Supermarkets in Nairobi were found to be more likely to use vendor-managed inventory systems and warehouse management systems, according to the research. Furthermore, the study proposed that supermarkets invest more in new technologies, such as information communication technology, in order to achieve integration, lower communication costs, improve efficiency, and promote information sharing, all of which would lead to improved performance.

The research on information technology in retail trade carried out in Poland by Kucharska (2013), which aimed to explore selected solutions based on information technologies used in retail and to show the findings of a field study done among retailers and their consumers. At the turn of the year, the study was conducted among 300 selected stores and 600 customers. It was carried out through the use of direct interviews (a measuring tool, thus, interview questionnaires). The survey found that information technologies in retail strive to improve customer service by automating and customizing the offer, in addition to increasing the effectiveness of retail businesses in various aspects of their operations. In addition, the success of implemented solutions is determined by a retailer's capabilities as well as consumer attitudes toward innovative technologies.

In another research on ICT by Razali, Rahman, Adnan & Yassin (2014), entitled **impact of information and communication technology on retail property in Malaysia**. The goal of the study was to look into the impact of information and communication technologies on Malaysian retail property. The study also looked at what listed property businesses think about the implications of employing ICT in Malaysia's retail property sector. Sample questionnaires completed by 79 property companies listed on the Bursa Malaysia were used to compile the data (formerly known as the Kuala Lumpur Stock Exchange). The importance of ICT on retail property in Malaysia was then assessed using an ICT retail effect matrix. The study's conclusions suggested that ICT

would have only a modest impact on retail property in Malaysia, and that traditional methods of managing a retail property firm would continue to be necessary. It also discovered that listed property businesses were ready to integrate ICT applications and that retail property demand in Malaysia would continue to rise in the future.

According to Doherty, Ellis, Chadwick & Hart (1999), the internet as a retail channel has influenced ICT in the UK retail sector. Other academics have emphasised the substantial implications of the introduction of internet shopping in the retail business, such as BigneAlcaniz, RuizMafe, AldasManzano & SanzBlas (2008), and Hand, Riley, Harris, Singh & Rettie (2009).

The role of ICT in retail sectors

Shekar (2020), conducted a research on role of technology in organised retail sector in India. The focus of the study paper was on the role of technology in the retailing industry and retail outlets. The research article was descriptive in nature and entirely based on secondary data gleaned from journals, magazines, websites, texts, company reports, and previous research studies. The researcher concluded that technology is regarded as one of the core competencies that provide opportunity to retailers while also adding value to the business. Customer insight cannot be fully utilized without the use of technology to improve the relationship. Information is provided and analysed by technology throughout marketing, sales, and operations. Changes have occurred over the last two decades as a result of reforms being implemented, and retailing is no exception. It has undergone a sea change as a result of the introduction and application of cutting-edge technology in order to meet the customer's needs and make operations easier.

Tabeck (2020), also carried out a research on role of technology in retail business in India. This study was conducted to better understand the role of retail technology in the Indian retailing environment. The TAM model was used in the study, and the convenience sampling method was used to determine whether technology has an impact on the consumer purchasing habits. The author concluded that everyone can see the impact of innovation in retailing. Retailing technologies aim not only to increase efficiency in various operational areas of retailing, but also to improve customer service. This has been accomplished through automation and customization, which encourages

customers to purchase superior and one of a kind experiences that influence their purchasing behaviour. According to the findings of the study, the majority of customers' purchasing behaviour is positively influenced by retailers who offer various retailing technologies. The positive impact of the same enabled retailers to recognize the significance of technology within their stores and to use it to ensure that customers tend to return customers who visit their store on a regular basis increase sales. As a result, retailers are encouraged to examine the various technologies available and update in order to satisfy customers and influence their purchasing behaviour because the majority of buyers are both educated and uneducated, providing more information through technology also results in a poor customer experience.

Venkatesh (2016), carried out a research titled role of technology and innovation in enhancing customer experience in India. The purpose of the paper was to incorporate consumer experience into the development of technology and the process of retail innovation. A quantitative survey approach was employed to achieve the research goals. The sample size was 242 out of 278 total respondents. Different demographic channels were taken into account, and respondents were asked to rate their experiences with technology and innovation as it relates to customer experiences. The findings, in particular, highlighted how technologies can be an effective tool for driving retail innovation. With the ever-changing technologies in the retail industry, retailers confront the constant task of acquiring a competitive advantage through the creation of extra customer value. Retailers must continually reassess their strategy in order to reach this value.

Types of ICT used by retail sectors

Shankar, Kalyanamb, Setia, Golmohammadi, Douglass, Hennessey, Bulli & Waddoudj (2021), also carried out a research on how technology is changing retail in New York. Beginning with taxonomy of technologies that effect retailing, specifically in the COVID-19 and beyond world, the authors gave an in-depth examination of and outlook on how technology is transforming retail in this study. Shankar et al., (2021) went on to discuss various theoretical frameworks or lenses in order to better comprehend the function of technology in retailing. According to the study's findings, technology is

rapidly evolving. Many of these innovations are having a major impact on the retail industry. Micro-cloud computing, robots, 5G, VR, AR, MR, IoT, and drones are just a few of the emerging technologies transforming the retail industry. Retailing was able to change direction in the face of new and unforeseen conditions because to technology, particularly in the COVID-19 world.

Lewis & Loker (2014), undertook a research with a title which reads technology usage among apparel retail employees in USA. The purpose of this article was to identify factors that influence apparel retail employees' adoption and use of modern technologies, as well as to suggest management techniques for successful technology integration in retail businesses. In laboratory setting, current or former retail employees (N=71) were exposed to and given time to employ three technologies: a 3D body scanner, a product builder, and social networking. Each technology's usefulness, enjoyment, convenience of use, task importance, technological self-efficacy (total participant confidence in utilising new technology), and usage intent were all evaluated using a questionnaire. According to the findings, employees' perceived utility of technology had a moderating influence on usage intent for all three forms of technology. A substantial moderator of 3D body scanning technology usage intent was identified as enjoyment. Employees with high self-efficacy scores regarded each technology as more beneficial, meaning that employees who are more technologically confident are more likely to use the three forms of technology discussed in this study as part of their jobs.

Topley (2015), also conducted a research on technology in the retail industry using a case study of various retail markets in various countries. The study's purpose was to investigate Generation Y's perspectives and attitudes regarding technology in the retail business, as well as the primary drivers driving this transformation. Primary and secondary research were undertaken to gain a better grasp of consumer sentiments regarding this new purchasing phenomenon in order to gain a better understanding. The research was exploratory in character, with the goal of uncovering and exploring problems related to the subject at hand. The total number of participants was divided into two ten-person focus groups. The study's findings revealed that price and convenience are the key reasons why customers choose to purchase online, and this was backed up by primary research, with the majority of participants indicating these as their prime

motivators, followed by quality. Also, while the participants were aware of the technology available in the form of websites and mobile apps, they listed the onslaught of commercials as an irritant from which they would love to be free of when shopping online.

The challenges related to the usage of ICT by retail sectors

Mustafa, Hassan & Abd Aziz (2011), carried out a research study on e-commerce challenges and solutions in Malaysia. This study addressed e-problems commerce's and challenges, as well as a set of proposed solutions to those issues and roadblocks. Concerns about trust, readiness, and security were only a few of the issues raised. For each of the problems and challenges, solutions were also proposed. The study relied heavily on secondary data from journals and formal reports. Recent academic journals, spanning the years 2011 to 2015, were chosen. They concluded that as the digital economy expands and affects more business activities, it is critical to consider the proposed solutions to the aforementioned issues and challenges of e-commerce business. Despite the fact that e-commerce businesses come in all shapes and sizes, they all face the same issues and challenges.

Nair (2015), did a research on e-retailing in India: opportunities and challenges. The research focused on the opportunities and challenges that internet retailers faced in the Indian business environment. The research study's scope was limited to the internet retail market in India, as well as the opportunities and difficulties that it presented. Also, his research relied heavily on secondary data gathered from journals, industry papers, company websites, news items, and reports. The author concluded that over time, the Indian retail industry has undergone significant transformations. With a constant growth rate of 50-60%, internet shopping make a substantial contribution to the country's retail business and economy. However, in order to take advantage of these economic patterns, we must strengthen our country's physical infrastructure, policy framework, and operational environment.

Egbele-Okoro (2015), also carried out a research on the challenges of business to consumer e-commerce in Nigeria. His report outlined a number of challenges that Nigerian business-to-consumer e-commerce (online purchase) faced, as well as

recommendations for how to overcome them. A survey and a questionnaire were produced and delivered electronically to the target group of 100 participants as part of the study's mixed research technique. Despite the fact that business to consumer e-commerce continues to suffer hurdles, the study found that more Nigerians are opting for online shopping. Furthermore, trust was a crucial factor while buying online; lack of trust was cited as a reason why the majority of Nigerians do not shop online, and the majority of participants did not believe the legitimacy of products presented on retailer's websites in Nigeria. The researcher concluded that business to consumer e-commerce in Nigeria faced challenges, and as a result, it was suggested that the government invest in bringing high-quality broadband services to homes, that internet infrastructure owners in the country take steps to protect their infrastructures and provide better and cheaper internet services, and that the government put in place appropriate policies to ensure cyber security.

2.4 Gap analysis

The study carried out by Kithinji (2015), was only limited to supermarkets in Nairobi County, also his study is outdated as the research under study is current as compared to that of Kithinji (2015) which was done 7 years ago and the retail sector is not static but it is evolving, hence, the researcher discovered a gap in assessing the impact of information and communication technology on the retail sector's performance mainly focusing in Zimbabwe using a sample size of 40 respondents at TM Bindura as compared to that of Kithinji (2015) which used 136 supermarkets in Nairobi county as its sample size.

Another study by Kucharska (2013), only looked at information technology in retail trade mainly focusing on Poland with no relative focus on the on the retail sector of a developing country like Zimbabwe. In the research under study, the researcher will put much focus on the impact of ICT retail sector performance in Zimbabwe. Also, his research on information technology in retail trade was carried out in industrialized country with considerable ICT differences and this causes findings of the research under study to differ with that of Kucharska (2013). Doherty et al., (1999), also suggested that the internet as a retail channel has made an impact on ICT in the UK retail sector, in

which UK is an industrialised nation as Poland. In addition, differences of sample sizes triggered the researcher to carry out his research.

A study by Razali et al., (2014), mainly focused on the impact of ICT on retail property in Malaysia. In addition, a technological difference between the retail industries of the two countries causes the findings of the research under study to differ with that of Razali et al., (2014). Also, Razali et al., (2014), only looked at the retail property whereas the current research under study will look at TM Bindura supermarket thus, a food and grocery outlet in Zimbabwe. However, this made the researcher to identify a gap so as to look at the impact of ICT on retail sector performance in Zimbabwe using TM Bindura as a case study.

Another research study by Shekar (2020), that was done in India focused on the role of technology in the retailing sector and retailing outlets. The findings of his research can differ with those of the research under study because of the differences in micro and macro-economic conditions of India and Zimbabwe since India's are much better than those of Zimbabwe.

Tabeck (2020), also carried out a similar research topic by Shekar (2020), on the role of technology in retail business, which was conducted to better understand the role of retail technology in the Indian retailing environment. The TAM model was used in the study to determine whether technology has an impact on the consumer purchasing habits. Whereas the research under study used RBV and TCE and by using different models of technology, results or findings differs with that under study. Differences in the external environmental affecting retail sectors such as PESTLE (political, economic, social, technological, legal and environmental) factors has an impact to alter the results of the research under study and that of Tabeck (2020).

Moreover, a study by Venkatesh (2016), on the role of technology and innovation in enhancing customer experience in India, in which its purpose was to incorporate consumer experience into the development of technology and the process of retail innovation. This study used a quantitative survey approach and this can have different findings with the research under study because it focuses in both qualitative and quantitative research methods so as to have valid and reliable results. Also, differences in

the market conditions of India and Zimbabwe can produce different findings of both the researches.

Furthermore, Shankar et al., (2021), also carried out a research on how technology is changing retail in New York. The researcher discovered a gap in wanting to carry out a research on the impact of information and communication technology on the retail sector's performance because the retail sectors in both New York and in Zimbabwe to be specific in Bindura differ due differences in levels of ICT and this can produce different findings.

Lewis and Loker (2014), conducted a study on technology usage among apparel retail employees in the United States, with the goal of identifying factors that influence apparel retail employees' acceptance and use of advanced technologies, as well as recommending management strategies for effective technology integration in retail stores. Due to differences of the retail industries in Zimbabwe and USA and that research was done 8 years ago, both researches can produce different findings and also, USA have got better or improved market conditions as compared to Zimbabwe. Hence, retail employees' acceptance and use of advanced technologies in retail stores also differs which has an impact on the findings of the research under study.

Another research article by Topley (2015), looked into Generation Y's opinions and attitudes towards technology in the retail industry, as well as the main factors driving this shift in attitudes. It used a case study of various retail markets in various countries to look into Generation Y's opinions and attitudes towards technology in the retail industry, as well as the main factors driving this shift in attitudes. The researcher identified a need to conduct research on the impact of information and communication technology on the retail sector's performance because previous research only looked at different retail markets in different countries, but Zimbabwe was left out, and factors influencing attitudes towards technology use in the retail industry change over time.

In addition, Mustafa, Hassan, and Abd Aziz (2011), conducted a study on e-commerce challenges and solutions in Malaysia, and the researcher identified a gap in differences between the business environments of Malaysia and Zimbabwe in order to carry out his research, primarily focusing on the impact of ICT on the performance of Zimbabwe's

retail sector. Also, the research of Mustafa, Hassan, and Abd Aziz (2011), is outdated and this caused their findings to be different as compared to the research under study and their study relied heavily on secondary data from journals and formal reports whereas the research under study relied on both secondary and primary sources.

Nair (2015) also conducted research on e-commerce in India: opportunities and challenges. The research concentrated on the opportunities and challenges that internet retailers faced in the Indian business environment, and the scope of his research study was limited to the internet retail market in India, as well as the opportunities and challenges that it presented. However, by examining these statements, the researcher discovered a gap in Nair's research (2015), and carried out a research study on the impact of ICT on the retail sector performance mainly focusing on TM Bindura a supermarket in Zimbabwe.

Egbele-Okoro (2015), conducted a study on the challenges of business-to-consumer e-commerce in Nigeria. His research was primarily focused in Nigeria, which has a different retail sector than Zimbabwe, and the time period in which this research was conducted is outdated in comparison to the research under study. As a result, some of the findings of the current research differ from those of Egbele-Okoro (2015).

2.5 Summary

This chapter emphasised the study's theoretical and conceptual framework as well as empirical findings. In addition, the researcher's ability to conduct the research was determined. The research methodology was the subject of the next chapter.

CHAPTER III

RESEARCH METHODOLOGY

3.0 Introduction

This chapter sought to introduce the research design and data collection methodologies, as well as population and sampling, data collection instruments, data collection procedures, and a chapter summary.

3.1 Research design and justification

The researcher used a descriptive case study approach for this study. The descriptive case study research design is intended to describe natural phenomena that occur within the data under consideration. According to Kothari (2004), the researcher can use this method to study a single social unit or a group of them and can also even study a situation in depth. The researcher was able to collect firsthand, reliable, and useful information on any issue by adopting a case study approach. An experiment, on the other hand, intentionally isolates a phenomenon from its context while focusing on a small number of variables (Zaidah, 2003).

Because it incorporates the use of numerous sources and procedures in the data collection process, this study design was chosen over others. Because it enables the researcher to collect many forms of evidence relating to the research under study, the case study approach is effective for exploring ideas and creating hypotheses regarding programme or project dynamics. According to Mohajan (2018), case study research provides for in-depth exploration of numerous precise features that are typically neglected by other research methodologies such as experimental research design.

According to Johnson & Onweugbuzie (2004), the descriptive case study approach has its own limitations in that there is researcher bias because it is based on the use of a large amount of qualitative data. Also, the reliability is dependent on the interpretation that the researcher places on the information obtained. Because no set rules are followed in the

collection of information and only a few units are studied, there is a risk of false generalization. It also takes up more time and costs more money. The case study method necessitates more time.

3.2 Population

A population, according to Wegner (1975), is a collection of people who share one or two traits that the researcher is interested in. A target population, according to Gable (2014), is any group of people from whom the researcher seeks to acquire information. The information was acquired from both secondary and primary sources, including the internet. With a sample size of 40 respondents from the target demographic, the researcher employed stratified random and purposive data sampling procedures, with ten respondents from accounting and finance, ten from production, ten from marketing, and ten from security.

3.3.0 Sampling methods

According to Taherdoost (2016), the researcher is unlikely to be able to collect data from all cases in order to answer the study questions; hence, a sample must be chosen. According to Maxwell (2013), a sample is a portion or small percentage of a large population chosen to reflect the total targeted population; its features must be similar to the overall population under investigation.

The researcher employed stratified random and purposive data sampling procedures to acquire credible data on the impact of ICT on the performance of the retail industry. According to Creswell (2013), stratified random sampling allows the researcher to reduce bias in sample selection by ensuring that specific organisational departments are not highly represented or underrepresented. The personnel were classified into strata by the researcher, which are groupings of employees from different departments.

3.3.1 Sample size

The researcher employed a sample size of 40 people from the target population: ten from accounting and finance, ten from production, ten from marketing, and ten from security. Purposive sampling was used to choose a sample from each division or department, and

questionnaires and interviews were used to collect information from each employee in the target group.

3.4 Research instruments

In research, an instrument is a tool or piece of equipment used to gather data, such as surveys, interviews, or observation, according to Kothari (2004). For the following reasons and benefits, the researcher used questionnaires and interviews in the current study.

3.4.1 Questionnaires

According to Olson, Walker & Ruekert (1995), a questionnaire is a group of questions delivered to respondents in order to get their feedback about the area examined. A questionnaire, according to Heaton SchmidtWilk & Travis (2004), is a set of questions that have been deliberately conceived, structured, and sequenced in order to get the most useful data in the shortest time possible. In the study region, the researcher employed questionnaires, which were delivered by hand to ensure that they reached their intended destination.

3.4.1.0 Advantages of questionnaires

Questionnaires were used by the researcher because they were less expensive and easier to use. This was reaffirmed by Koathari (2004), who stated that this instrument makes it easy for the researcher to conduct scientific and objective analysis of the findings. The researcher also utilised questionnaires since they are impersonal, allowing respondents to give honest responses and ample time to complete them.

3.4.1.1 Disadvantages of questionnaires

However, when the researcher used this instrument to collect data, he faced some challenges and they include no control over the one who fills it out, and ambiguous responses to specific questions; interpreting omissions is difficult. Gilham (2000), goes on to argue that the ambiguity and unclearness of some questions may result in inaccurate and unrelated responses. It was also challenging to determine whether willing participants were actually representative. This procedure took a long time to complete. As a result, the subjects were encouraged to complete the surveys, which gave the researcher the

opportunity to clarify any questions that the respondents might have had difficulty answering.

3.4.2 Interviews

The interview method of data collection, according to Kothari (2004), comprises the presentation of oral-verbal stimuli and answers in the form of oral-verbal responses. Personal interviews were conducted in this study in order to acquire qualitative data, which is crucial in any research. Interviews were conducted to compensate for the researcher's shortcomings while using questionnaires as a research tool. The researcher conducted interviews with TM Bindura employees. However, due to Covid-19's limitations, the researcher attempted to use Google Meet and Zoom instead. Also, some of the benefits of using interviews as a research tool by the researcher are listed below.

3.4.2.0 Advantages of interviews

The researcher found that an interview was more personal than a questionnaire, which allowed him to get a higher response rate and collect more thorough information while also gaining a better grasp of the subject matter. According to Abawi (2013), the researcher was able to make required changes to the interview schedule based on preliminary results, which was not possible with a questionnaire, and the researcher had more control over the sequence and flow of questions.

3.4.2.1 Disadvantages of interviews

However, as a result of using interviews as a research tool in the study, the research had the following drawbacks. Interviews were expensive to the researcher and some of the upper level management employees were unwilling to be interviewed by the researcher because they believe they were superior to the researcher as supported by Abawi (2013). The researcher attempted to overcome some of the limitations of interviews by assuring the respondents that the study was purely academic and that the researcher was eager to learn from their responses. The interviews were all one-on-one in order to maximize individual responses and avoid the risk of cancelling scheduled interviews due to late arrivals, as would be the case with group discussions.

3.5 Data collection procedures

The researcher sought permission from those in positions of authority at TM Bindura to conduct the research under consideration. Target respondents were given a letter along with self-administered questionnaires by hand using stratified random sampling, a non-probability sampling technique. Because questionnaires have some drawbacks, such as time consumption and coding difficulty, the research also used interviewer administered questions. The researcher's data collection technique resolved all of the drawbacks of self-administered questionnaires because the researcher was able fill out the questionnaire while interviewing the respondents. The questionnaires were physically collected from TM Bindura by the researcher.

3.6 Validity and reliability

The process of developing and validating an instrument, according to Kimberlin & Winterstein (2008), is largely concerned with reducing measurement error. The researcher was directed by research objectives, research questions, and other necessary factors in the subject under study to ensure that the research instruments were valid and dependable. Before distributing the questionnaires, the researcher ran a pilot test to check their reliability and validity. Respondents were also given the option of answering questions from their own point of view, reducing the researcher's bias. Furthermore, the researcher employed two data collection methods, questionnaires and interviews, so the limitations of one approach were balanced by the strengths of the other. As a result, the acquired data's dependability and trustworthiness, as well as their interpretation, improved (Abowitz & Toole, 2010).

3.7 Data presentation and analysis

Data analysis, according to Lee & Lee (1999), is a method that gives acquired data order, structure, and meaning. Microsoft Excel was used to analyse the information. The results of the data analysis were presented in the form of tables, bar graphs, pie charts, and proportions of actual values in order to draw conclusions. The use of tables, according to Borg & Gall (1996), makes it easier to determine links between variables in a distribution.

3.8 Ethical considerations

According to Leedy & Ormrod (2005), whenever humans undertake research, they should think about the ethical implications of their actions. The study was conducted in compliance with the following ethical principles: informed consent, freedom from danger of harm, confidentiality, anonymity, and the right to service (Jupp, 2006). The respondents were told that the information they provided would be treated anonymously and privately for the purposes of the study.

3.9 Summary

The researcher's research design, target population, sampling methods, data collection methods and processes, and verifying the validity and reliability of the research equipment utilised by the researcher were all discussed in this chapter. In addition, the researcher followed all ethical guidelines in the field of research. The display, analysis, and discussion of data were the emphasis of the following chapter.

CHAPTER IV

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.0 Introduction

This chapter focused on the researcher's questionnaire and interview data and how to display and analyse it. For the purposes of this study, data was presented as tables, bar graph, pie charts, and percentages of actual statistics.

4.1 Questionnaire responses

The table below shows the response rate of questionnaires issued to TM Bindura employees.

Table 1 Questionnaire response rate

Departments	Questionnaires distributed	Questionnaires returned	Response rate
Accounts	7	6	23%
Production	7	7	100%
Marketing	8	5	19%
Security	8	8	100%
Totals	30	26	87%

Source: (Primary data, 2022)

A total of 30 questionnaires were distributed to TM Bindura staff members and only 26 were responded to, yielding an 87 percent response rate. The percentage of unreturned questionnaires was 13 percent. Staff members who did not return the questionnaires were assigned to other tasks before returning the questionnaires, some were afraid of Covid-19 pandemic and they did not even attempt to answer them. According to Creswell (2014), a response rate of more than 50% is sufficient for the researcher to obtain unbiased results:

thus, the response rate in the study was greater than 50%, indicating sufficient support for the research objectives.

4.2 Demographic information of respondents

The table below shows the demographic information of participants at TM Bindura staff members.

Table 2 Demographic information of respondents

Variable	Description	Frequency	Response rate
Gender	Male	16	62%
	Female	10	38%
	Total	26	100%
Age range	Below 25 years	2	8%
	26-30 years	8	31%
	31-35 years	7	27%
	36-40 years	5	19%
	Above 40 years	4	15%
	Total	26	100%
Educational level	Primary	0	-
	O' and/ A	15	58%
	Diploma	7	27%
	Degree	4	15%
	Total	26	100%
Period of employment	Below 5 years	5	19%
	5-10 years	9	35%
	11-15 years	10	38%
	Above 15 years	2	8%
	Total	26	100%

Source: (Primary data, 2022)

According to the table above, females made up only 38% of those who participated in this study, while males made up 62%. There were ten females and sixteen males. According

to these findings, the organization is dominated by males and this revealed that most of the issues to do with ICT was mainly done by males.

From the table above, the study found that there were few people under the age of 25, with 8% of staff members at TM Bindura being under the age of 25. The majority of staff members at TM Bindura were between the ages of 26 and 30 years old, accounting 31%, followed by 31-35 years with 27%, 36-40 years with 19%, and above 40 years with 8%. These figures showed that TM staff members was made up of people of various age groups, which resulted in the most reliable responses, lending credence to the trustworthiness of the responses they provided in the area under study.

According to the table above, none of the employees at TM Bindura finished at the primary level. 58% of the respondents had ordinary and/or advanced level qualifications, 27% had diplomas, and only 15% had degrees. The fact that the majority of respondents had an ordinary or advanced level meant that they understood what was being asked in the questionnaires, and thus their responses could be trusted. The majority of the population must be well equipped with much needed knowledge for the findings to be valid and reliable, as shown in the diagram above.

The above table showed that only 19% of the employees had been on the job for less than 5 years, followed 35% for about 5 to 10 years, 38% for about 11 to 15 years, and 8% who had been on the job for more than 15 years at TM Bindura. As a result, their time with the company was long enough to gain a thorough understanding of its operations and the responses they provided on questionnaires and in interviews were not mere guesses but well-thought-out responses because they had seen how ICT had impacted their organisation basing on the time they had been working on the organisation.

4.3.1 Types of ICT used in your organisation

By a scale of 1-5 respondents were asked to identify the types of information and communication technology (ICT) used in their company. The diagram below depicts how each of the respondents responded.

Table 3 Types of ICT and responses for respondents at TM Bindura

Statements	SD	D	M	A	SA	Total
Electronic Point of sale (EPOS)	0 -	0 -	6 23%	10 38.5%	10 38.5%	26 100%
Scan and go	16 61.5%	10 38.5%	0 -	0 -	0 -	26 100%
Mobile device	0 -	0 -	6 23%	10 38.5%	10 38.5%	26 100%
Bar code system	0 -	0	6 23.1%	9 34.6%	11 42.3%	26 100%
Robot powered warehouse	16 61.5%	10 38.5%	0 -	0 -	0 -	26 100%

Source: (Primary data, 2022)

Key

SD	D	M	A	SA
Strongly disagree	Disagree	Moderate	Agree	Strongly agree

According to the diagram above, the study revealed that there were various types of information and communication technology (ICT) used at TM Bindura based on the responses provided by the respondents.

38.5 percent agreed that a point of sale machine was one of the types used at their organization, with another 38.5 percent strongly agreed. This demonstrated that the firm is making greater use of point-of-sale machines in order to improve its operations and customer service. This viewpoint was backed up by Kucharska (2013), who stated that information technologies in retail strive to improve customer service by automating and customising the offer, in addition to increasing the effectiveness of retail businesses in various areas of their operations. However, just 23% agreed with the statement that a

point of sale machine was a sort of ICT utilised at TM Bindura, and no one opposed or strongly disagreed with it.

61.5 percent strongly disagreed that scan and go technology was one of the types used at their organization, while 38.5 percent disagreed with this statement. This demonstrated that there is still a need to implement this type of technology in this organization in order to meet the needs of customers and make operations more efficient. This was supported by Jadhav and Kadam (n.d.), who stated that this type of technology provides clear benefits such as allowing consumers to shop with little to no staff interaction and a lower risk of staff handling their products, as well as speeding up the shopping process, making it easier to avoid contact with other shoppers, and reducing line lengths at the checkout.

38.5 percent agreed, and 38.5 percent strongly agreed that mobile devices were among the technologies used at TM Bindura, while 23 percent disagreed. The TM Bindura purchasing experience was boosted by mobile devices in terms of ease, speed, and flexibility. Piotrowicz and Cuthbertson (2014) backed up this claim, claiming that smart mobile devices (such as smartphones and tablets) allow customers to shop at any time and from any location, improving the convenience, speed, and flexibility of the shopping experience, and that they have had a significant impact on retail business models.

23.1% were moderate, and 34.6% agreed that the bar code system was one of the technologies used at TM Bindura, while 42.3% strongly agreed with that statement. This meant that TM Bindura was heavily utilizing this type of technology to improve its performance because it is a valuable and viable option for the firm in improving efficiency and lowering overheads, as well as being both cost-effective and dependable. Maher (2012), supported this viewpoint by stating that this type of technology saves time and adds value to the firm.

61.5 percent strongly disagreed that a robot-powered warehouse was one of the types used at their organization, while another 38.5 percent disagreed. However, in order for this company to improve its performance and save money, it must implement this type of technology.

From the findings on the table, these results showed that electronic payment system, bar code system and mobile devices were the most types of ICT's used by the firm so as to improve its performance.

4.3.2 Other types of ICT used at TM Bindura

Respondents also regarded cctvs (closed circuit televisions) and biometric scans as other types of technology that are used to a greater extent at their organization. Investing in such ICTs has enabled TM Bindura in reducing communication costs, increasing efficiency, increased information sharing and this had led to improved firm's performance. Kithinji (2015), agreed, stating in his recommendations that supermarkets should invest more in modern technologies, such as information and communication technology, in order to achieve integration, lower communication costs, increase efficiency, and increase information sharing, all of which will improve performance.

4.3.3 Roles of ICT at TM Bindura

By a scale of 1 to 5 respondents were asked to identify the roles of information and communication technology (ICT) at their company. The diagram below depicts how each of the respondents responded.

Table 4 Roles of ICT and responses of respondents at TM Bindura

Statements	SD	D	M	A	SA	Total
Personalisation of products	0 -	0 -	0 -	10 38.5%	16 61.5%	26 100%
Changes in labour decisions	0 -	0 -	3 11.5%	13 50%	10 38.5%	26 100%
New management systems	0 -	0 -	2 7.7%	15 57.7%	9 34.6%	26 100%
New labour skills	0 -	0 -	0 -	12 46.2%	14 53.8%	26 100%
New	0	0	0	6	20	26

competitive models	-	-	-	23.1%	76.9%	100%
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Source: (Primary data, 2022)

Key

SD	D	M	A	SA
Strongly disagree	Disagree	Moderate	Agree	Strongly agree

From the diagram above, the study revealed that there were numerous roles of information and communication technology (ICT) at TM Bindura based on the responses provided by the respondents. 38.5% agreed that personalisation of products was one of the roles of ICT at their organization, with another 61.5% strongly agreed. These results highlighted that the firm had been enabled to personalize their products through adjustable manufacturing processes as supported by Yapar, Bayrakdar & Yapar (2015).

11.5% were moderate and 50% agreed that changes in labour decisions were also another role of ICT at TM Bindura. However, another 38.5% also strongly agreed with that statement as another role of ICT. This indicated that ICT aided TM Bindura's productivity when it devised techniques to keep businesses lucrative, such as engagement with customers using technologies such as collaboration platforms and e-commerce, as backed by Yapar, Bayrakdar & Yapar (2015).

7.7% were moderate, and 57.7% agreed that new management systems was another role of ICT at their organisation while 34.6% strongly agreed with that statement. This showed that ICT at TM Bindura was a key driver of innovation and development as it provided numerous opportunities to boost productivity through the use of new intangible services such as online services as reinforced by Argandona (2003).

46.2% agreed that new labour skills were also one of the roles of ICT at TM Bindura, with another 53.8% strongly agreed with that statement. However, this revealed that ICT at TM Bindura had helped the employees to be well equipped enough with new systems and strategies, such as sales-based ordering (SBO) and efficient consumer response

(ECR) which in turn had can lowered costs and boosted productivity by assisting and improving business operations at TM Bindura as buttressed by Reynolds, Quatieri & Dunn (2000).

23.1% agreed and 76.9% also strongly agreed that new competitive models were also roles of ICT at TM Bindura. According to the research, it played a significant influence because it had the greatest percentage of respondents who firmly agreed that ICT played a part in their company. These findings revealed that ICT has greatly boosted the relevance of services in the value generation process at TM Bindura. In his paper, The New Economy, Ethical Issues, Journal of Business Ethics, Argandona (2003) backed up this claim.

4.3.4 Impact of ICT on the performance of the firm

The study discovered that ICT had both positive and negative impacts in general on the firm's performance. The researcher discusses both of them further below.

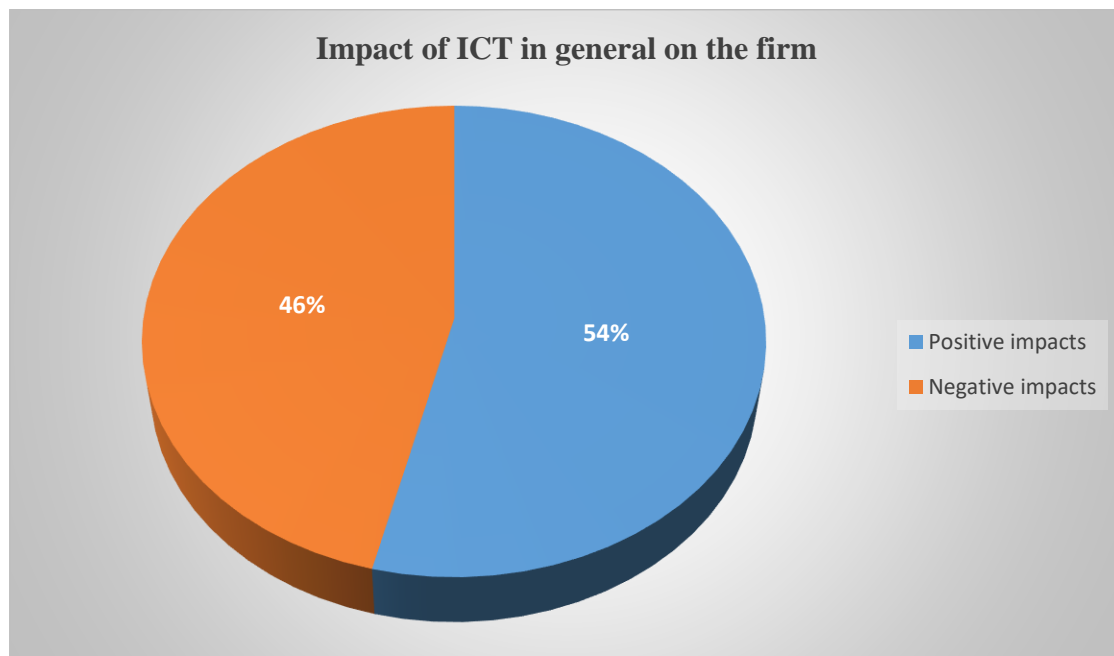


Figure 2 Impact of ICT on the firm's performance

Source: (Primary data, 2022)

According to the diagram above, the study discovered that ICT had both positive and negative impacts in general on the firm's performance. Positive impacts made up only 54%, while negative impacts made up 46%. According to these findings, the study revealed that positive impacts of ICT outweighed the negative impacts in general on the firm's performance.

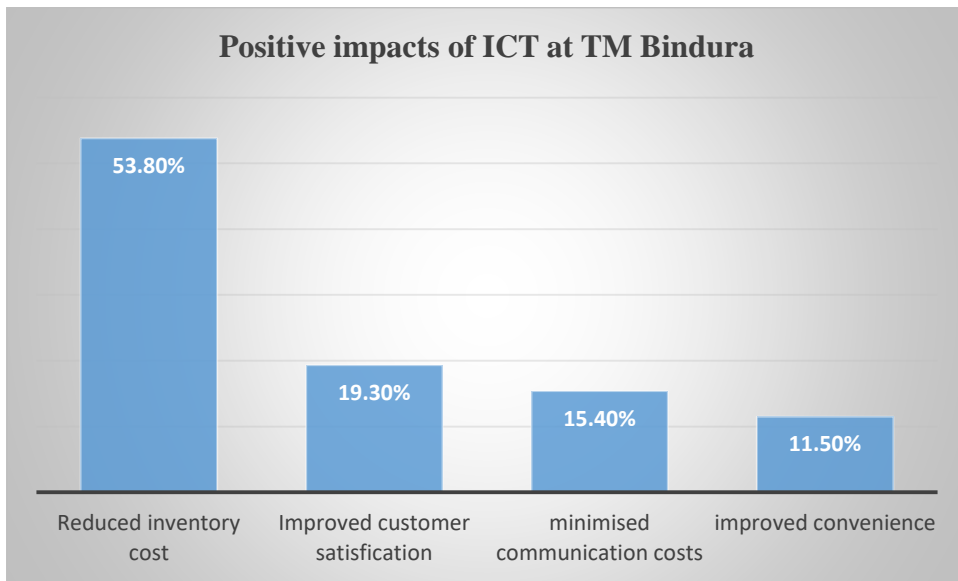


Figure 3 Positive impacts of ICT at TM Bindura

Source: (Primary data, 2022)

According to the diagram above, the study discovered that ICT had positive impacts on the firm's performance. The study revealed that lower inventory costs were one of the positive impacts of ICT on the performance of TM Bindura. Also, it was regarded as the major positive impact with 53.8% as shown on the bar graph above. The Transaction Cost Economics (TCE) theory supports this, stating that the advent of ICT results in lower transaction costs associated with transaction management (Coase, 1937; Alchian and Demsetz, 1972; Williamson, 1975), as well as effective collaboration.

The study also highlighted that improved customer satisfaction was another positive impact of ICT on the performance of TM Bindura. As shown on the bar graph above, this variable constituted a 19.3% of the respondents who agreed that it was a positive impact of ICT on their firm's performance. Sorescu et al., (2011) supported this idea in their

work on retail business model innovations, stating that most retailers focus on selling products to provide an enjoyable customer experience by empowering and engaging customers by broadening the scope of their target markets through the use of mass customised technologies in order to provide personalised products to their customers, thereby improving customer satisfaction.

In addition, the study revealed that a minimised communication cost was another positive impact of ICT on the firm's performance. It had a 15.4% of the respondents who agreed with the former statement. Kithinji (2015) backed up this viewpoint with his recommendations, which stated that supermarkets should invest more in modern technologies, such as information communication technology, in order to achieve integration, lower communication costs, increase efficiency, and increase information sharing, all of which would lead to improved performance.

Another positive impact of ICT on the performance of TM Bindura was improved convenience with 11.5% according to the study as shown on the bar graph above. This notion was supported by Piotrowicz & Cuthbertson (2014), who stated in their study on the introduction to the special issue information technology in retail that allowing customers to shop at any time and from any location improves the convenience, speed, and flexibility of the shopping experience, as seen at TM Bindura during its operating hours.

4.3.5 Challenges related with the usage of ICT at TM Bindura

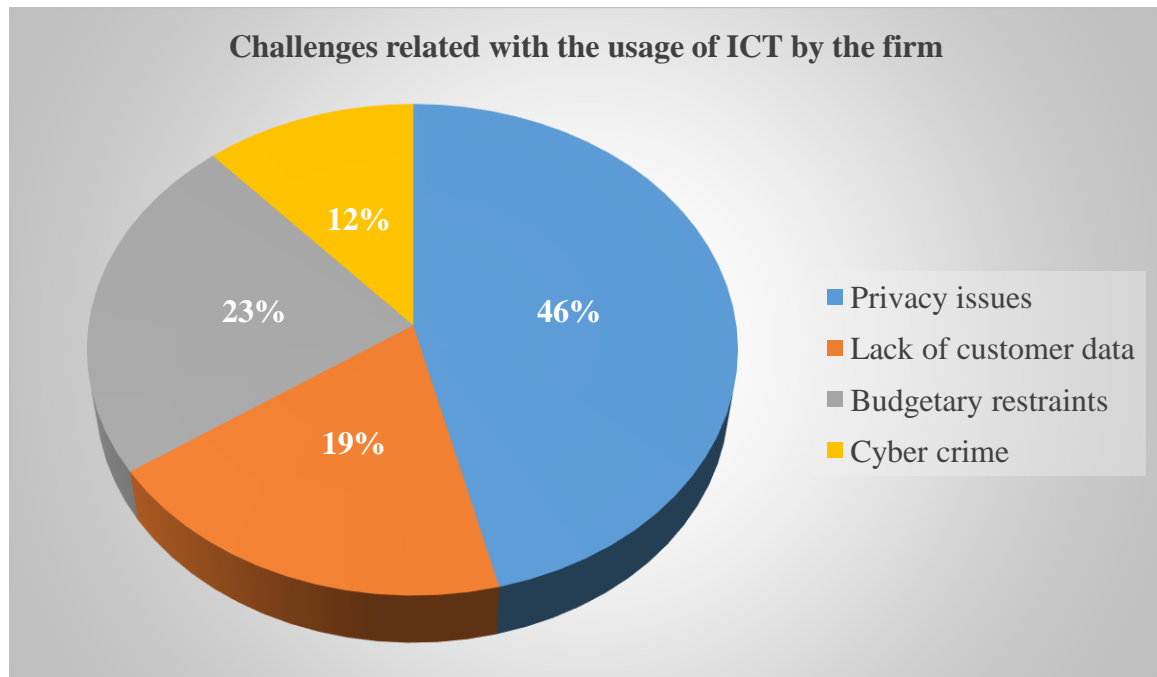


Figure 4 Challenges associated with the usage of ICT by the firm

Source: (Primary data, 2022)

Based on the replies provided by the respondents, the study identified a number of issues relating to the firm's use of information and communication technology (ICT), as shown in the diagram above.

The study also discovered that privacy issues was one of the challenges related with the usage of ICT at TM Bindura, as demonstrated by respondents' responses with 46% as shown on the pie chart above. These results were similar to that of Egbele-Okoro (2015), who mentioned that in his findings, lack of trust was one of the challenges related with the usage of ICT while buying online as the majority of Nigerians do not shop online and they did not believe in the legitimacy of products presented on retailer's websites in Nigeria.

Also, the study discovered that lack of customer data as one of the challenges related with the usage of ICT at TM Bindura, with 19% of the respondents who agreed that it was a challenge of ICT in their firm. These results were alike to that of Gupta & Ramachandran (2021), in their research paper when they stressed out that one of the obstacles of

integrating ICT in the retail sector is the lack of customer data of which most of the retailers still have customer data which they do not know how to mine for insights, or data that is out of date.

According to the study budgetary restraints was also another one of the challenges related with the usage of ICT at TM Bindura, with 23% of the respondents who agreed that it was a defy of ICT at their firm as shown on the diagram above. This idea was also similar to that of van Meeteren, Trincado-Munoz, Rubin & Vorley (2022), in their research study when they mentioned that one of the problems of employing ICT in the retail sector was budgetary restraints because the digital transformation of many retail firms usually concludes with an e-commerce website and sometimes an app which is sometimes tough and expensive, and to some extent, some retail businesses do not have the funds to meet these expenses associated with the usage of ICT.

To add more, the study also revealed that cybercrimes such as phishing, malware and hacking some of the challenges related with the usage of ICT at TM Bindura, as demonstrated by respondents' responses with 12% as shown on the pie chart above. These findings were similar to those of Chaparro-Pelaez, Agudo-Peregrina, & Pasnoorwar (2016), who stated in their study of conjoint analysis of drivers and inhibitors of e-commerce adoption in a journal of business research that cyber security was one of the challenges related to the use of ICT that most businesses faced. Hence, these challenges need everyone to be responsible and to be aware of them so as to use the most appropriate control measure to overcome them.

4.3.6 The control measures associated with the use of ICT at TM Bindura

Table 5 Control measures associated with ICT usage at TM Bindura

Statements	SD	D	M	A	SA	Total
Restricting access as needed	0 -	0 -	0 -	10 38.5%	16 16.5%	26 100%
Simplify and	0 -	0 -	6 23%	10 38.5%	10 38.5%	26 100%

streamline digital systems						
Disaster recovery plan	0 -	0 -	0 -	16 61.5%	10 38.5%	26 100%
Educating employees and customers	0 -	0 -	2 7.7%	10 38.5%	14 53.8%	26 100%

Source: (Primary data, 2022)

Key

SD	D	M	A	SA
Strongly disagree	Disagree	Moderate	Agree	Strongly agree

According to the diagram above, the study revealed that there were various control measures associated with the usage of information and communication technology (ICT) by the firm based on the responses that were provided by the respondents.

38.5 percent agreed that restricting access as needed was one of the control measures associated with the usage of information and communication technology (ICT) at their organization, with another 61.5 percent who strongly agreed with this statement. Since employees usually carry sensitive data with them at all times and unauthorized access to information. This problem was mitigated by building a map of who has access to sensitive information on the company's computer network and then restricting access as needed, as Rabbi (2009), demonstrated in his research on IT service taxonomy for elaborating IT service catalogues.

23 percent were moderate on that simplifying and streamlining of digital systems was a control measure associated with the usage of information and communication technology

(ICT) at TM Bindura, with another 38.5 percent agreed and 38.5 percent strongly agreed with this statement. The respondents also explained that their firm was getting rid of any software that it longer required as supported by Herd et al., (2011), who mentioned that instead, evaluate your system as a whole and make sure your firm only has what it needs, and integrate all platforms so that it can create a unified employee experience to enhance corporate efficiency, according to their findings.

61.5% agreed that disaster recovery plan was another one of the control measures associated with the usage of information and communication technology (ICT) at their organization, with another 38.5% who strongly agreed with this statement. This measure was used to prevent data losses by using backup servers, cloud services, and external storage as supported by Rabbi (2009), in his readings on IT service taxonomy for elaborating IT service catalogue.

7.7% were moderate on that educating employees on issues to do with ICT was also another control measures associated with the usage of information and communication technology (ICT) at their organization, with 38.5% agreeing and another 53.8% strongly agreed with this statement. This was backed up by the findings of Herd et al., (2011), who stated in their research that people's attitudes about security should change, and that it was necessary to educate employees and establish rules like BYOD (Bring Your Own Device Policy).

4.4 Responses to interviews

The researcher conducted 8 out of 10 interviews with staff members from various departments at TM Bindura, resulting in an interview response rate of 80%. The interview findings focused on the understanding of the term ICT by respondents, the impacts of ICT on TM Bindura's performance, the types of ICT used and their roles in the firm, and challenges associated with ICT usage at TM Bindura.

4.4.1 Types of ICT used at TM Bindura

According to the responses of the respondents, the majority of them understood the term ICT and its types at their firm, as 75% of its staff members proved to know what the term was all about and its types, while the remaining 25% did not know the term and the

interviewer ended up shedding light on what the term ICT was all about. 75% of the respondents identified electronic point of sale (EPOS) machine, mobile devices, and closed circuit television's and bar code system as some types of ICT's used at their firm. These types of ICT's were the most used ones by the employees at the firm according to the primary data from the interviews. However, the respondents ended up detecting other types of ICT's that were not used at their organisation such as robot powered warehouses and scan and go and they mentioned that if they were used, the performance of their was going to improve.

4.4.2 Roles of ICT at TM Bindura

Also, the study revealed that 88% of the respondents from the interviews highlighted personalisation of products, changes in labour decisions and new labour skills as role of ICT at their organisation according to the primary data from interviews. Also the interviewees mentioned that new systems such sales-based ordering (SBO) and efficient consumer response (ECR) needed to be of use to a greater extent because they end up lowering costs and as well as boosting productivity which eventually leads to improved business operations as buttressed by the results of Reynolds, Quatieri & Dunn (2000).

4.4.3 Impact of ICT at TM Bindura

The study revealed that about 63% of the respondents from the interviewees were also quite certain about how ICT affected their organisation's performance. Lower inventory costs, higher customer satisfaction, greater convenience and lower communication costs were the positive impacts of ICT that were cited by respondents from the interviews according to the primary data. From the 63% of the respondents, 30% of them identified lower inventory costs as the major positive impact of ICT at their organisation. This meant that the remaining 33% consisted of higher customer satisfaction, greater convenience and lower communication costs. Therefore, this showed that lower inventory costs were the major positive impact of ICT at TM Bindura.

4.4.4 Challenges associated with ICT usage at TM Bindura

According to the replies of the respondents, 75% of them highlighted privacy issues, budgetary restraints, cybercrimes (hacking, phishing and malware attacks) and lack of customer data as the challenges associated with the usage of ICT at their retail store. In

addition, from the 75% of the replies of the interviewees, 35% of them also indicated that their organization was taking some of appropriate control measures such as restricting access as needed, having a disaster recovery plan, simplifying and streamlining digital systems and educating of employees and customers as well so as to deal with some challenges associated with the usage of ICT.

4.5 Summary

This chapter examined the results obtained from respondents concerning the impact of ICT on retail sector performance, with a case study of TM Bindura as the goal was to assess the impacts of ICT on TM Bindura's performance, ascertain the types of ICT used by the firm, determine the roles of ICT at TM Bindura, identify the challenges associated with the usage of ICT and recommend appropriate measures that can be taken to overcome challenges associated with ICT usage at TM Bindura. Pie charts, tables, bar graph, and proportions of real statistics were used to show the data. The study's summary, conclusions, and recommendations were discussed in the next chapter.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the study's major findings. These findings are based on information gathered and presented by the researcher from questionnaires and interviews about the impact of ICT on retail sector performance.

5.1 Summary of the major findings

The study sought to fulfil the following the following objectives:

1. To assess the impact of ICT on the performance of TM Bindura.
2. To determine the role of ICT in the retail sector.
3. To ascertain the types of ICT used by TM Bindura.
4. To investigate the challenges related with the usage of ICT by TM Bindura.
5. To recommend on the appropriate measures that can be taken to fight challenges associated with ICT usage in the retail sector.

The study discovered that information and communication technology (ICT) had a positive impact on the firm's performance. Lower inventory costs, higher customer satisfaction, greater convenience, and lower communication costs were some of these positive impacts for improving TM Bindura's performance while using ICT. However, reduction in inventory costs was seen as the main positive impact of ICT on the performance of the firm.

The following were considered as the roles of ICT, new management systems, support infrastructure, changes in labour decisions, new labour skills, personalisation of products and competitive models within the firm were the major roles of ICT within the firm. However, new competitive models was the major role of ICT basing on the primary data

and it had greatly enhanced the relevance of services in the value creation process at the firm.

Based on the responses provided by the respondents, the study revealed that various types of information and communication technology (ICT) are used at TM Bindura. The findings were that most common types of ICTs used by the firm to improve its performance were electronic payment systems, bar code systems, and mobile devices were widely used by TM Bindura. However, the majority of respondents in the study stated that, while robot-powered warehouses were types of ICT, they were not used at their organization because they are very expensive to install.

Also, the respondents identified cctvs (closed circuit televisions) and biometric scans as other types of technology that are increasingly used at their organization. As a result of investment in such ICTs, TM Bindura has been able to lower communication costs, increase efficiency, and expand information sharing, all of which have benefited the firm's performance.

Furthermore, privacy concerns, lack of customer data, budgetary restraints and cybercrime were some of the challenges associated with the usage of ICT on the firm's operations that, if not addressed properly, reduces the firm's profitability. Privacy concerns was seen as the major challenge associated with the usage of ICT.

According to the results of the study, there are control measures associated with the use of ICT at TM Bindura, which include the company creating a map of who has access to sensitive information on its computer network and restricting access to those who do not need it as needed, as well as educating employees and customers on ICT issues.

Based on the comments of the respondents, the researcher discovered that ICT had a positive impact on TM Bindura's performance.

5.2 Conclusion

After the major findings it can be inferred that: electronic payment systems, bar code systems, closed circuit television and mobile devices were the main types of ICT used by the firm. Also, new competitive models within the firm was the major role of ICT, however, it resulted to a greater enhanced relevance of services in the value creation

process at TM Bindura. Reduced inventory costs was the major positive impact of ICT at the firm and as the usage of ICT was increasing, the costs associated with its usage were decreasing. Although there were many challenges associated with the usage of ICT, privacy concerns was the main challenge associated with the usage of ICT by the firm. Basing with this study, generally ICT had a positive impact on the performance of this firm.

5.3 Recommendations

Given the preceding conclusions, it is recommended that:

Coaching clinics and ICT training must be held so that workers are well equipped with much needed information on ICT and its usage at to generate digital experiences for employees using technology.

ICT such as robot-powered warehouses be made available at TM Bindura in order for this company to improve its performance and save money with this type of technology.

Because we live in an information and communication technology-rich world, firms should provide some of its services in a holistic manner via the internet.

5.4 Areas of further researches

More research on the impact of technology on supply chain management, the impact of technology and cybercrime in commerce, and the function of information and communication technology in advertising, according to this study, is needed.

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Appendix I

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF INTELLIGENCE AND SECURITY STUDIES



To whom it may concern

RE: REQUEST FOR RESPONSES ON THE QUESTIONNAIRE

My name is Wensley Takaadini Mutinhima, and I am a student at Bindura University of Science Education studying Financial Intelligence. As part of my Financial Intelligence degree programme, I am required to conduct research in a field and on a topic of my choosing. In this regard, I'm now working on a project called **“The impact of Information and Communication Technology (ICT), using TM Bindura as a case study (period 2021-2022).”** The research objectives are to identify the impacts of ICT on the performance of retail sector, to ascertain the types of ICT used in the retail sector, to determine the role of ICT in the retail sector, to investigate the challenges related with the usage of ICT by TM Bindura and to recommend on the appropriate measures to be taken to overcome challenges associated with ICT usage in the retail sector.

In order to collect data, the researcher will administer the questions on the questionnaire. Your co-operation in this research is critical to the success of this project. Kindly answer all the questions as fully and honestly as possible. Please kindly note that there are no right or wrong answers to any of the questions as perceptions and experience differs from one individual to another. All the information provided in this questionnaire would be for academic purposes only and remain absolutely confidential. Any queries please do not hesitate to contact me on my gmail which is twmutinhima@gmail.com.

Yours truly

Mutihima Wensely. T.

Appendix II

QUESTIONNAIRE FOR TM BINDURA RESPONDENTS

INSTRUCTIONS

Please tick where applicable relevant answers and provide information on the spaces where necessary.

Please do not write your name on the questionnaire.

SECTION A: Demographic information

1. Gender

Male []

Female []

2. Age range

Below 25 []

26-30 []

31-35 []

36-40 []

Above 40 []

3. Educational Qualifications

Primary []

'O' and/'A' level []

Diploma []

Degree []

4. Indicate your department

Accounts []

Production []

Marketing []

Security []

5. Period of employment

Below 5 years []

5-10 years []

11- 15 years []

Above 15 years []

SECTION B

6. By a scale of 1-5, please indicate to what extent do you agree with the following statements as the types of information and communication technology (ICT) used in your organisation: Strongly disagree, Disagree, Moderate, Agree, Strongly agree

Statements	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
Electronic Point of Sale (EPOS)					
Scan and Go technology					
Mobile devices					
European Article Number bar code system					
Robot powered warehouses					

7. Other than the above, what would you consider as other types of ICT used in your organisation?

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8. What do you consider as the role of ICT in your organisation?

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9. What do you consider as impacts of ICT in your organisation?

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10. What are the challenges associated with the usage of ICT at your organisation?

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11. What are the control measures to overcome the problems associated with ICT usage in your organisation?

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Appendix III

INTERVIEW GUIDE QUESTIONS FOR TM BINDURA RESPONDENTS

Research Topic: The impact of information and communication technology (ICT) on retail sector performance. A case of TM Bindura (period 2021-2022).

Which types of ICT are used in your organization?

What are the impacts of ICT on the performance in your organization?

What is the role of ICT in your organization?

Which are the challenges associated with the usage of ICT at your organization?

THANK YOU FOR YOUR PARTICIPATION!!!