

**THE ADOPTION OF E-COMMERCE AND THE COMPETITIVE
ADVANTAGE OF CARREFOUR SUPERMARKETS DURING
COVID 19 PANDEMIC IN KENYA**

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DECLARATION

I confirm that the material given here is all my own and has not been previously submitted to any other academic venue.

Signature:



Date: 15/11/2022

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D65/88322/2016

My consent as the University's supervisor was required for the submission of this research proposal.

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DEDICATION

My late mother, who encouraged me to dream, inspired me to pursue this study, and I am grateful to all those who helped me along the way.

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ABBREVIATIONS AND ACRONYMS

Tech	Technology
RBV	Resource-based view
CEM	Customer Experience Management
EPZ	Export Processing Zones
FMCG	Fast Moving Consumer Goods
SEM	Structural Equation Modelling
KSHS.	Kenya shillings
MAF	Majid Al Futtaim

ABSTRACT

The rise of e-commerce has had a significant impact on businesses across all sectors. Organizations are actively seeking change in order to harness the advantages of these digital advances in order to reap the benefits of these shifting technological landscapes. In the course of the last two decades, e-commerce tactics have evolved into instruments of industry rivalry and have come to be used as indicators of the amount of competitive positions held by a certain company within an industry. The overarching purpose of the research was to ascertain the level of participation in e-commerce and the degree to which Carrefour supermarkets in Kenya had a competitive edge over their rivals during the COVID 19 epidemic. The Technology Acceptance Model, the Chaos Theory of Management, and the Resource Dependency Theory served as the foundation for this investigation. The research used a case study methodology, and data gathering was accomplished via the use of an interview guide. Analysis of data that was qualitative in character was carried out with the use of content analysis. The study revealed that Carrefour Limited has adopted e-commerce in various aspects of its business operations. The e-commerce Carrefour APP, Integration of POS systems instore operations, use Artificial intelligence to monitor consumer behaviors. The study also revealed that sales of the supermarket have continued to grow immensely due to their strategic expansion models. Adoption of e-commerce has accelerated this growth and helped increase overall market share despite having a few branch network compared to some of their main competitors. The sales of the company have been growing over time due to increased market share that has been made possible by the adoption of the e-commerce strategy. The study concludes that the adoption of e-commerce has totally reversed the trend and the supermarket has experienced a total transformation on its revenues. The study also concludes that there has been increased number of purchases from mostly customers due to adoption of e-commerce especially for quick and fast needs like basic commodities. According to the findings of the research, it is recommended that the industry create a detailed map identifying which areas of e-commerce are pertinent to their sector and spend extensively in those aspects in order to remain competitive. The research also suggests that management of Carrefour Limited be challenged to develop their product and service offerings on a consistent basis. This recommendation is included in the report. It would be beneficial for Carrefour Limited to invest more resources in product development and research in order to improve the overall quality and variety of their offerings.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

E-commerce strategies have developed into tools for industry competitiveness over the last two decades, and they now play a major role in deciding how many competitive positions a specific business has in any given sector. Pantano (2014) claims that enterprises who adopt e-commerce methods increase their market share, growth rate, profits, and overall market value. It is anticipated that an organization that implements e-commerce will not only earn favorable returns, but will also strengthen the connections that it has with its clients and customers. (Niehans,2006). Additionally, e-commerce play a significant role in improving customer service while decreasing client's transactional cost leading to increased competitive advantage which in effect enhances competitive advantage (Ahmed, Manwani, & Ahmed, 2018).

The research was based on three different theories: the Resource Dependency Theory, the Chaos Theory of Management, and the Technology Acceptance Model. The Technology Acceptance Model is an explanation of the elements that impact on the acceptance of technology by the people who are meant to use it. Some of these considerations include apparent benefit and simplicity of use. Therefore, the ease of usage of digital marketing strategies and the perceptions that real estates have on their usefulness determines their adoption (Marin, Garcia, Torres, Vázquez and Moren 2005). Pfeffer and Salancik proposed the Resource Dependency Theory (RDT) (1978). The theory assumes an existence of a

dependent environment in a firm for vital inputs like the cash, labour, and other vital materials. According to Peters's (1987) chaos theory of management, managers need to be well prepared for disruptive changes that might come from either the natural or technology world. The unpredictability of processes, behaviors, and occurrences is a primary focus of this theoretical framework.

The Kenyan retail business has been confronted with a variety of issues, including new competitors entering the market and rising customer expectations (Melville, Kraemer & Gurbaxani 2014). Because of the intense rivalry that exists in the retail sector, the management team at Carrefour Limited has devised a number of procedures and tactics to guarantee that the Chain maintains its position as the industry leader. The Retail Chain has been steadily opening up additional locations around the United States in order to broaden its client base, increase its revenues, and improve accessibility to its goods and services. The Retailer makes available to its clients an e-commerce website via which they may place orders for things from the comfort of their own homes and then wait for the products to be delivered to their doorsteps (Ngugi, 2016). Carrefour Limited has used a variety of tactics in order to preserve their leading position in the retail industry in light of the fact that the organization is subject to direct or indirect effect from changes in the external environment (Colla, & Dupuis 2002).

1.1.1 E-Commerce

Soto (2005) defines e-commerce as a multi-step process that shortens the time it takes to plan and implement a marketing campaign, communicate with customers, ship orders, and assess the success of a business deal. Turban, Lee, King, and Chung (2009) add that e-commerce is "the buying and selling of products, services, and information through the

Internet." Zwass (2006) defines e-commerce as "the use of information about the introduction of new technologies inside a company, the maintenance of the firm's relationships, and the conduct of the firm's operations through the Internet." As stated by Kalakota and Whinston (2007), there are three main kinds of transactions that include the usage of e-commerce applications: business-to-customer, customer-to-customer, and business-to-business. Another possible point of entry is between the government and its citizens or its businesses.

Tsai and Cheng (2012) state that the perceived advantages that e-commerce may provide to an enterprise are the primary motivating factor behind its deployment. E-commerce, they say, is being adopted because of hopes that it would cut down on operational costs, improve production quality and quantity, and let businesses react more quickly to changes in the market and the needs of its stakeholders (Lin and Hsieh 2007). E-commerce facilitates the adoption of collaborative technologies like repositories, shared databases, discussion forums, and workflow, which in turn facilitates the implementation of those technologies.

Researchers have shown that there is a favorable correlation between innovation and the use of collaborative tools inside an organization. Customers and vendors are able to more easily share information with one another because to this association, which makes it possible to do so through web sites and extranets. As a result, the Internet and other similar technologies facilitate the dissemination of employees' unique creative and practical skills across the organization and facilitate the appropriate use of this information throughout the product development cycle (Andreu, Aldas, Bigne & Mattila, 2010). Lawrence and Tar (2010) argue that e-commerce has the potential to affect efficiency and productivity across a variety of economic sectors in developing nations, but that this potential is hampered by

a number of obstacles. Issues with basic infrastructure, a lack of government support, and a lackluster economy all contribute to this. It has been said that the absence of top management's backing, a lack of funding, and a lack of technical expertise are all factors that prevent the widespread implementation of electronic commerce.

1.1.2 Competitive Advantage

An organization or a nation is said to have a competitive advantage when they are in a condition that allows them to provide services or commodities at a price that is both cheap and one that satisfies the preferences and needs of their clients (Wagner, 2014). A business' competitive advantage may come from a variety of sources, including its customer service, intellectual property, cost structure, distribution network, quality, and brand. Companies with a sustainable competitive advantage, as defined by Meihami and Meihami (2014), regularly provide products and services that meet the key purchase criteria of the market's large majority of consumers. This is one of the requirements for these businesses to maintain their advantage. Achieving better performance and economic value over an extended length of time in the market is required for this.

The findings of a number of academics have led them to the conclusion that some types of competitive advantages cannot be readily replicated, which allows businesses to enjoy gains that are sustainable over time. This concept has helped advance the competitive advantage idea from a resource-based viewpoint and the industrial organizations (IO) during the last several years, therefore contributing to the growth of the concept of sustainable competitive advantage (SCA). As a result, there are two components that are considered to make up a competitive advantage: The first idea is the notion of above-average performance, and it is used as a relational statistic within a certain industry. The

idea of durability is the second one. The idea of durability is not totally evident, even if outperformance in an industry may be accurately measured by comparing returns to the average of the industry.

According to Peteraf (2013), the primary indications of a company's competitive advantage are outlined in terms of the cost of physical assets. According to Porter, M. E. 1996, the only way for a corporation to surpass its competitors is if it can build a difference that it can maintain. It must either provide clients with more value than they now get or provide equal value at a cheaper cost, or both. On the other hand, Porter contends that the majority of organizations compete primarily on their operational performance today.

1.1.3 The Covid-19 Pandemic

Corona virus disease 2019 (COVID-19) is a contagious airborne illness that strains the respiratory in humans caused by the SARS-CoV-2; it is an infection that may damage the lungs and airways. The disease is abbreviated with the abbreviation COVID-19. Despite the fact that there is an elevation imagination involved on the risk of uncertainty, a higher colony amalgamated environment occurred, which has the potential to limit the entry and outflow of resources of players such as suppliers (Hoek, 2020). The pandemic has been responsible for a variety of economic ripple effects, one of which has been a shift in the rate of inflation in some sectors of the economy of the state. Since its initial conferment of the sickness in the patients by the World Health Organization (WHO) in Wuhan City, Hubei Province, in China in August 2019, there has been no acknowledged remedy for it, according to the study from the health care research lab in the year 2021. The COVID-19 case fatality ratio has had a negligible overall mortality toll (WHO, 2020a; WHO, 2020b),

which is noticeably bigger than the SARS case fatality ratio that occurred in 2003 (WHO, 2020a; WHO, 2020b).

The United Nations' Global Immediate Socio-Economic Response framework, which was developed in response to the COVID 19 situation, issues a warning that the COVID-19 pandemic is much more than a health disaster and is instead impacting communities and economies at their very foundations. Even while the pandemic's effects will differ from nation to country, it will almost certainly have the effect of worsening poverty and inequality on a worldwide basis, which will make it even more important to meet the Sustainable Development Goals (SDGs) (Daniel 2020). The devastation produced by the COVID-19 calamity may be felt all around the globe. Even though there is an elevation in imagination implicated on the uncertainty risk, a highly mixed dependency environment prevailed, which has the potential to impede the inflow and outflow of resources of actors like suppliers. This is the case despite the fact that there is an elevation in imagination implicated on the uncertainty risk. Because of this, the livelihoods of people all around the world have been put in jeopardy. In addition to its other effects, the pandemic has had a negative effect on some products of the financial markets, such as bonds and other stocks, which has contributed to an even greater degree of economic suffering.

1.1.4 Kenya Retail Industry

Kenya retail sector is among the priority sectors in Kenya that is involved in making up the largest part of the country's Gross Domestic Product and creating formal employment of approximately 50%. Kenya's retail sector is placed second after South Africa as the continent's most developed and the fastest growing sector within the continent (Colla, & Dupuis 2002). There is increased competition between the foreign and local outlets for new

market share in Kenya that is evident from the entrance of international players for example Carrefour Supermarket, the French multinational retailer that opened its first outlet in May 2016 (Ngige, 2014). Other retail firms that have penetrated into the Kenyan retail industry sector are Botswana's Choppies and Massmart Holding's Game. Macroeconomic growth and rise of the purchasing power of the middle-income consumers and investment in high end formal retail space and foreign retailers, producers and brands entering the market is boosting and benefiting the retail industry strongly.

Retailers recognized value chain and the retail industry recorded positive performance through the marketing activities that are heightened, population growth and positive economic metrics. Even though the retail sector in Kenya recorded prospects that were positive, some retail organizations experienced stormy times for instance Nakumatt and Uchumi Supermarket that shut down their strategic warehouses and outlets (Pantano,2014). Many employment opportunities crumpled and great numbers of employees were sent home due to problems with the management of cashflows, tough operating environment, issues with the internal corporate governance and poor growth management and increased debts due to the struggle to maintain supply chain that was powered by tough operating environment.

Advancement of technology also influenced online shopping that led to the growth of online retailing websites that include Jumia, Kilimall and Pigiame. The shopping experience of customers also impacted positively with regards to technology space through cashless payment systems, e-commerce and mobile platforms. The government of Kenya should continue supporting the retail industry through the provision and creation of a conducive business environment (Hurt, 2002).

1.1.5 Carrefour Limited

Carrefour is an international retail firm that was founded in France and has its headquarters in the city of Massy in France. It has a chain of supermarkets, grocery stores, and convenience stores totaling 12,225 locations throughout 30 countries as of January 2021, making it the eighth-largest retailer in the world by revenue (Chuang, Donegan, Ganon & Wei, 2011). In 2016, Carrefour launched its business with the opening of its first shop in Kenya. The Carrefour hypermarket in Kenya is one of the country's most successful and rapidly expanding businesses. It is concerned with both food and non-food goods as well as services. Since the company's founding in 2016, it has made efforts both to meet the requirements of its clientele and to fill the void caused by the departure of two of the largest supermarket chains in Kenya: Nakumatt and Uchumi. Both of these chains had been major competitors in the past. The French international retailer has established a solid reputation over the course of time in the fiercely competitive sector in the area. The company's annual earnings have been on an upward trend year after year. For example, in 2018, the company's total sales amounted to Sh13.87 billion, representing an 8.11 percent increase over the previous year's total sales (Aoyama, 2007).

This increase may be linked to the company's massive growth, which is being done with the intention of appealing to a large number of customers. As a one-stop shop, the retail establishment has everything that a consumer would need at any one time. Through the use of online supermarkets and grocery delivery services, Carrefour Ltd. has been able to fulfill its goal of providing convenience to its clients. According to the findings of the market study, Carrefour Ltd. has been successful in expanding its client base as a result of its responsive customer service, creative product catalogue, and most competitive market

pricing (Carrefour Ltd, 2019). Carrefour is among the most successful businesses in the retail sector because it provides customers with high-caliber products and services. Carrefour, Ltd. was expanding in the market by maintaining its competitive edge, and it was maintaining its presence in the market despite the intense competition.

1.2 Research Problem

The rise of e-commerce is causing profound changes to the organizational structures of every sector. Organizations are actively seeking change in order to harness the advantages of these digital advances in order to reap the benefits of these shifting technological landscapes. According to Beldona et al. (2012)'s hypothesis, an e-commerce framework has developed into an essential component of modern-day commercial systems. The Covid 19 epidemic has changed the way businesses operate in the twenty-first century and will continue to do so in the future. Organizations' primary tool for managing this shift is the e-commerce strategy, which allows employees to adjust to the new normal. Through e-commerce strategy that an organization can position itself to make sure there is continuous success hence cushioning itself from shocks around the environment. Because e-commerce is the most viable method to apply on any business to help the firm achieve a competitive advantage and survive in its own industry.

Carrefour Limited does enjoy large profit margins that is achieved through favourable market prices of their products, keeping up to date with technological changes, recruiting highly skilled and professional staff, diversification, and upholding accountability in allocation of resources within the organization (Burt & Mavrommatis 2006). Carrefour Limited is also one of the largest online supermarkets in Kenya that provides its customers

with a convenient platform for online shopping without leaving the comfort of their homes or offices with three hours groceries delivery across Nairobi. Carrefour Limited is able to improve its performance by coming up with ecommerce strategies during the period of covid 19

Several studies have been done on the e-commerce, locally and globally. Globally, Turkey's industrial enterprises have a strong link between e-commerce and profitability, according to Karabul (2015). However, because of the social and economic disparities between industrialized and developing countries, this research cannot be applied to Kenya. In addition, the study was based on diffusion of innovation theory which is more of how e-commerce moves rather than its influence on performance. Based on research conducted by Alqershi, Bin Abas, and Mokhtar (2018), it was found that the main reason of the low performance in Yemen manufacturing SME firms was a lack of e-commerce strategies. This study was however quantitative in nature and therefore failed to capture the qualitative aspects which is the aim of the current study. Prifti and Alimhmeti (2016) focused their research on e-commerce practices impact and organizational performance in Albania. Descriptive research was done, and 99 firms were picked at random. SEM and structured questionnaires acquired the main data, whereas structural equation models were used for the statistical analysis. The research found a correlation between artificial intelligence and new marketing ideas. The study was not based on case study.

Locally, Auma (2014) analyzed the impact that e-commerce has on the competitive advantage that is gained by Kenyan horticulture processors and exporters. The findings of the regression indicated that marketing and e-commerce had a considerable impact, both individually and collectively, on the enterprises' level of competitive advantage. The firms

that specialized in the processing and export of horticultural products were the primary focus of the research. Quantitative methods were used to the analysis, while the analysis in the previous study was qualitative. Dore (2018) investigated the impact that e-commerce has had on the competitive advantage enjoyed by enterprises that manufacture health care items. It was decided to conduct a descriptive study, and questionnaires were used to gather data from 22 different industrial companies in Nairobi. According to the findings of the research, e-commerce methods have a substantial impact on a company's competitive edge. However, the research concentrated on businesses that were involved in manufacturing. Kariuki (2017) investigated the impact of e-commerce strategy on the competitive advantage of Kenyan commercial banking institutions. It was shown, using the regression model, that both technologies had a considerable impact on the competitive advantage of the banks that were sampled. It was also discovered that big data analysis had a favorable impact on the competitive advantage enjoyed by the bank. On commercial banks, however, this investigation concentrated its attention.

From all of the research that were done, majority of the studies focused on e-commerce and performance, whereas just a few studies investigated the competitive advantage. It is the goal of this research proposal to find out whether or not the e-commerce influences competitive advantage. The study addressed the research question: To what extent has E-commerce adoption lead to the Competitive advantage of Carrefour supermarkets during covid 19 pandemic in Kenya?

1.3 Objectives of the Study

The objective of the study was to determine the extent of adoption of ecommerce and the competitive advantage of Carrefour supermarkets during covid 19 pandemic in Kenya.

1.4 Value of the Study

Validation of the application of the relevant theories to the current business environment and scenario is the main contribution of this study to the existing body of knowledge on the issue, which includes the expectation-confirmation theory and the technology acceptance model. This study provided further proof on top of the notions that have previously been validated in the academic sector. This study was able to put these three ideas to the test in regard to the acquiring of a competitive advantage via the expansion of e-commerce.

The management of the Carrefour limited had a well-researched assessment of how their growth of ecommerce is contributing to the gain of customers. The managers may then come up with reforms that may improve customer loyalty towards their products and spur more development in the country.

Ultimately, the study's results helped government authorities and other sectors regulate the formation of laws that impact the retail sector in Kenya, helping to encourage healthy competition among retail supermarkets there and so generating more income and maximizing profits. It is vital to highlight that the retail business is essential to the success of Kenya's Vision 2030 plan and is a crucial catalyst for the expansion of the economy.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this section examines all applicable theories and reviews related empirical investigations. Moreover, the chapter provides examples of different sorts of strategic innovations and a literature review summary demonstrating the proposed connection between e-commerce and competitive advantage.

2.2 Theoretical Framework

This section lays a foundation of the study by describing the related theories that support growth of ecommerce on Covid 19 pandemic. The study was guided by the following theories: technology acceptance model, resource dependence theory and chaos theory of Management.

2.2.2 Technology Acceptance Model

Davis's (1989) postulates in his Technology Acceptance Model (TAM) that an individual's inclination to embrace a technology is influenced by their openness to and confidence in the benefits, satisfaction, and utility function of that technology. TAM suggests that a user's propensity to incorporate an IT system into their routine may be used as an indicator of the user's acceptance of the system. The user's attitude toward the system and the user's impression of the system's utility both play a role in shaping the user's intention, which in turn symbolizes the user's opinion of the value of their experience with the system (Lee, Kozar, & Larsen, 2003). Additionally, a customer's willingness to utilize an e-commerce

application is influenced by the program's simplicity of use and mobility. The ability to operate a system with minimal to no learning curve is one definition of simplicity offered by Davis (1989). Perceived ease of access indirectly influences behavior in the setting of TAM.

The TAM model has been refined over the years to take into account a wider variety of aspects, including cognitive processes, perceived risk, experience, and social impact (Park, 2009). In the course of their research on the dissemination of ICT, several scholars have made use of the TAM. The technological acceptance hypothesis is significant when trying to foretell how consumers will react to an e-commerce app (King, & He 2006). Customers are more likely to adopt a solution if it effectively addresses their problems. Due to this, the prosperity of a car company is directly related to how well it has adopted online trade.

2.2.2 Resource Dependence Theory

Resource dependence theory (RDT) emanated from Pfeffer and Salancik's (1978). RDT characterizes an entity as unique system, which is based on contingencies within the environment (Hillman, Withers & Collins, 2009). The structure considers organizational activities within the surroundings where the firm is found and also need to look for resources emanating from the environment. The look out on external resources is a critical part to any strategic and tactical managing of any firm (Powell & Rey, 2015). RDT argues that the environment avails important resources required by the firm. The surrounding is the key source of uncertainties. The degree of uncertainty changes based on the distribution of sensitive resources within environment (Shehada, 2010).

The theory indicates that survival of a firm is the firms' ability to pick resources in an uncontrolled surrounding. Thus, firms are attached to the surrounding through their reliance on other firms for resources gathered (Powell & Rey, 2015). The theory explains that the environments vary as resources also change as firms enter and exit. Organizations run the risk of not being able to respond to changes in the environment when the surrounding conditions change (Nienhüser, 2008). The RDT in this study supports that that depending on institutional resources. Organizations do exercise different degrees of resisting and the act of being active to external pressures.

The resource dependency hypothesis is essential to the process of informing this research since it helps explain how the combination of resources through time enables the development of certain skills, which in turn leads to improved service and an advantage over the competition. The resources of a company make it easier for that company to put into effect its many different strategic management methods, which in turn leads to an improvement in the quality of the services it provides. RDT has been accused for overlooking other significant environmental difficulties on enterprises, which must not only fulfill technical limits, but also respond to a variety of demands represented in legislation, by restricting down to transactional dependency (Drees, & Heugens 2013).

2.2.3 Chaos Theory of Management

Peters' (1987) introduction of the chaos theory necessitates the need for managers to be appropriately prepared for disruptive change. Unpredictability is emphasized in terms of processes, actions, and occurrences throughout this theory. According to Thietart and Forgues (1995), a large number of academics recognise the presence of both stable and unstable processes inside an organization, as well as convergence and divergence

processes, evolution and revolution processes, and so on. These procedures are deeply ingrained in businesses and serve as a mirror for the management style of such organizations.

The essential tenet of this theory is that, in more recent times, the settings of organizations have grown more unpredictable. As a consequence of this, companies need to make significant efforts to ensure the stability of their systems and processes. In order for these processes and systems to operate well, they need to be integrated with other systems and given organizational structures that are adaptable; failing to do so will eventually result in their failure (Peters & Peters, 1987). This concept was very helpful when the globe was in chaos because to the Covid-19 Pandemic.

Considering the role that e-commerce has played in the retail industry's growth and development, this hypothesis is especially relevant to the present day. As a result, now is an excellent opportunity to investigate the tactics that businesses operating in this industry have utilized. When it comes to providing a firm with a service, e-commerce may be broken down into four categories: the five types of e-commerce, and the five elements of e-commerce. In addition to this criticism, the theory has been criticized for having a restricted perspective on the working environment of companies. In the midst of the current economic crisis, retail chains are being forced to re-evaluate their digital strategy in order to maintain their stability, stay profitable, and keep up with the competition.

2.3 Growth of E-Commerce

Experts in the field of e-commerce have pointed to a broad range of elements that play a part in shaping the way it is implemented in different industries and organizations. To explain the elements that impact the adoption of e-commerce by enterprises, several

hypotheses have been created. Both the theory of communicative action and the theory of innovation spread are examples of such frameworks. Innovation Diffusion theory classifies the factors that influence the introduction of new IT systems into organizations (Davis, 1989). Adoption of a new innovation may be slowed or sped up depending on a number of factors, such as the relative benefit of the system, the complexity of the system, and its compatibility. However, Chwelos et al. (2011) argue that the theory of diffusion is limited to discussing system-descriptive technological aspects. Most of the discovered elements that impact adoption of the business-to-business e-commerce framework assumed an organizational dimension, focusing on inter-organizational and organizational characteristics in addition to technical ones. This was done due to the idea of diffusion's exclusive focus on technological elements used to characterize the system.

Soto, et al. (2005) argue that institutional factors shape the adoption of e-commerce in the supply chain. Companies struggle to adhere to standards and processes that have been deemed acceptable by their respective institutions, the study revealed. In order to reach this conclusion, they drew on institutional theory. If a company does not comply to what is considered to be an industry standard, then the company is likely to suffer fines in the form of a denial of capitals and social sustenance, both of which are required for increasing one's level of competitiveness. As a result of interactions with various industry actors, it has been determined that there are three distinct forms of isomorphic pressures. According to Singh and Kundu (2002), the three components of coercion, mimetic behavior, and normative behavior are the most influential in institutional settings. Mimetic pressures arise when one company seeks to improve its social legitimacy by emulating the inventions or functional practices of another company in its own operational business environment. This occurs

regardless of whether the target organizations actually produce any value in practice. However, businesses may confront explicit or informal coercion from government agencies, parent companies, and other policy regulatory entities. With the highest concentration and best quality of resource ownership, these institutions stand out.

According to Bhattacharjee (2001), the elements that determine how a firm puts a B2B strategy into action may be broken down into two categories: customer-related and supplier-related factors. E-commerce adoption may be influenced by a number of characteristics that are connected to suppliers. There are several factors to consider, such as system integration, customer readiness, online supplier information, customer process alignment, customer process alignment, and supplier process alignment. Zhu, Dong, Xu, and Kraemer (2014) state that there are two broad classes of factors that affect whether or not a company decides to use e-commerce: innovation factors and contextual factors. System operations are characterized by the innovation factors. There are several factors to consider while choosing a system, such as its cost-effectiveness, interoperability, security, and competitive edge. However, factors including company size, technical prowess, partner readiness, and external pressure to succeed all play a role in determining how heavily an enterprise relies on e-business. The authors found that certain factors had a detrimental effect on e-business implementation, such as larger organizations, more security concerns, and more costs, while others had a positive effect. The implementation of e-business has an effect on its overall performance. According to Zhang and Dhaliwal (2009), when a company decides to embrace e-commerce, it is important for the company to take into account both the contextual aspects of the company as well as the regulating variables in order to accurately foresee the application of e-business.

In Hong Kong's garment sector, Cho (2015) wanted to find out the most important aspects that impact the inclusion of third-party B2B portals, so they carried out a research to investigate the topic. Several variables were found to influence businesses' decisions to embrace e-commerce. These included company size, perceived benefits, reported hurdles, and perceived external pressure. Chong and Pervan (2010) found that external and internal environmental factors had a significant effect on the effectiveness of the B2B implementation process. Internal factors include trial-and-error possibilities, perceived competitive advantage, observability, communication volume with other businesses, non-trading institutional impacts, information source diversity, and competitive pressure were considered.

The factors that drive e-commerce are intricately connected to one another, leading in certain cases to a significant degree of mutual dependence. For instance, the availability of the internet and the use of smart gadgets to access the internet go hand in hand with one another. According to the CAK Whitepaper on E-Commerce Adoption in Kenya (2015), an increase in the size of the middle class's discretionary income is directly connected to an increase in the number of people engaging in electronic commerce. According to Omollo (2013), there is a significant positive association between a country's regulatory structure that is friendly to e-commerce and the expansion of that sector of the economy. He cites Kenya as an example, noting that the country's government has fostered an environment that is friendly to the proliferation of mobile payment services by putting in place a legislative framework that is favourable to such growth. A comparison with neighboring nations that have a comparable socioeconomic profile but that have legislative frameworks that are different or nonexistent reveals that these countries are behind in the

provision of mobile payment services. As a consequence of this, it is abundantly clear that the drivers have a robust interaction with one another, sometimes even to the degree of being mutually inclusive.

2.4 Empirical Studies and Research Gap

Karlsson and Tavassoli (2015) performed research in Europe on e-commerce practices impact on telecoms firm performance; a correlational research methodology was used in a 15-telecommunication firm's sample. Data was gathered via the use of questionnaires, and a business repository provided secondary materials. The study discovered a beneficial contribution to business performance utilizing descriptive statistics and content analysis. Prifti and Alimhmeti (2016) focused their research on e-commerce practices impact and organizational performance in Albania. Descriptive research was done, and 99 firms were picked at random. SEM and structured questionnaires acquired the main data, whereas structural equation models were used for the statistical analysis. The research found a correlation between artificial intelligence and new marketing ideas. The study was not based on case study.

E-commerce makes accessible IT-based communication capabilities that, according to Klein, Rai, and Straub (2010), may be used to coordinate responses to external opportunities and threats via better management of information flows. In order to better predict shifts in market demand, businesses may get valuable insight from their customers in real time by adopting IT-based social media tools that aid in filtering information capabilities and, as a consequence, arranging client opinions. The decision support systems

and data warehouses made possible by e-commerce IT are also highlighted by Wixom and Watson (2011), who note how useful they are to organizations for real-time data monitoring, trend identification, and strategic scenario modeling. The study did not look at whether or not e-commerce may provide a company an edge in the market.

The impact of the COVID-19 pandemic on digital transformation and the economy was studied by Olorundare et al. (2020). The ggplot2 package in the RStudio environment was used to visualize data analyzed using the R programming language for a technical evaluation. The availability of digital channels is a necessary condition for digital transformation to be implemented. Since they already have the infrastructures necessary to support digital firms, developed countries can move more quickly to respond to the COVID-19 epidemic. Two surveys were conducted to achieve this purpose, one focusing on the effects of COVID-19 on the traditional sector, and the other on the paradigm shift toward digital transformation.

Auma (2014) investigated how the use of e-commerce might help Kenyan horticulture processors and exporters gain a competitive edge in their respective industries. The multiple linear regression method was adopted for use in the analysis of the data after it was gathered via questionnaires sent out to the administrators of 49 different companies. The findings of the regression indicated that marketing and e-commerce had a considerable impact, both individually and collectively, on the enterprises' level of competitive advantage. The horticultural processing and export enterprises were the primary focus of the research, and quantitative techniques were employed for analysis, while the study that was just referenced will be qualitative in nature.

Wambua and Datche (2017) use a Case Study of Equity Bank Mombasa County, Kenya to investigate the e-commerce factors that affect financial inclusivity in the banking industry. The authors place a primary emphasis on the perceived risk, user friendliness, trust and confidence, and anti-money laundering requirements on innovative delivery channels. Wambua and Datche's research was published in 2017. Both qualitative and quantitative approaches were employed to gather and analyze the data for this study, which followed a descriptive survey research design. Since a case study of banks served as the basis for the research, and quantitative methods were used for analysis, certain important details were left out.

Dore (2018) investigated the impact that e-commerce has had on the competitive advantage enjoyed by enterprises that manufacture health care items. It was decided to conduct a descriptive study, and questionnaires were used to gather data from 22 different industrial companies in Nairobi. According to the findings of the research that used the regression model, 88.0% of the variance in competitive advantage was determined to be accounted for by various advances in process, product, technology, and market. According to the findings of the research, e-commerce methods have a substantial impact on a company's competitive edge. However, the research concentrated on businesses involved in manufacturing.

Samad and Aziz (2016) investigated how the competitive advantage of Malaysian small and medium-sized food processing businesses was influenced by e-commerce. The research used questionnaires and random sampling techniques to obtain data from a total of 220 different businesses as part of its sample. The research found, via the use of the regression method, that the use of e-commerce contributed favorably to an increase in

competitive advantage. This research focused on small and medium-sized enterprises, and it used factor modeling rather than content analysis.

Soto (2020) investigated the influence that the COVID-19 epidemic had on the digital transformation as well as the other way around. It has been hypothesized that the proliferation and development of collaborative digital technologies are doing away with, or at the very least significantly shrinking, organizational silos while simultaneously facilitating real-time collaboration and the exchange of information between in-house and external innovation teams. In place of content analysis, the research made use of factor models.

Research conducted by Kariuki (2017) looked at how a focus on e-commerce influenced the market standing of Kenyan commercial banks. As part of a descriptive research, questionnaires were sent to the upper echelons of Kenya's 44 commercial banks. It was shown using the regression model that technology had a considerable impact on the competitive advantage of the banks that were sampled. It was also discovered that big data analysis had a favorable impact on the competitive advantage enjoyed by the bank. On commercial banks, however, this investigation concentrated its attention.

E-commerce methods, as described by Karimi et al. (2010), facilitate communication between IT departments and business units within an organization to enhance knowledge sharing and strengthen the strategic alignment of IT and business in pursuit of shared objectives. Increased organizational performance and competitiveness may be achieved via

well-planned and executed policies and initiatives including the use of information technology on the part of both the corporation and its individual departments.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

An outline of the methodology used throughout the inquiry is shown below. Included in this are the steps of creating a plan to gather data, conducting the research, and analyzing the results. In addition, this chapter delves into the mechanics of information gathering and provides an in-depth look at what goes into analyzing the numbers.

3.2 Research Design

Research designs are plans for carrying out a study that are developed by a researcher so that a variety of questions may be answered (Creswell, 2003). Research design, as described by Kombo and Tromp (2006), is the framework for conducting a study; it specifies the steps to be taken in terms of organizing the data, gathering the information, and analyzing the results. The research method used was a case study using Carrefour Limited as the subject of investigation.

The term "case study" refers to an in-depth analysis of a specific person, group, or event (Cooper & Schindler 2000). A case study will be reflected as suited for this exploration due to the fact that it entailed full observation of one institution emphasising exclusivity rather than in breadth investigation. The architecture is particularly appropriate for situations in which in-depth and exhaustive study of a single unit of research is desired. In

a case study, practically every aspect of the subject's life and history was investigated in order to look for patterns and basis for behavior.

3.3 Population of the Study

According to Kumar (2005), the population is the group, family in the city, or electorate from which a sample of family members, students, and voters is drawn to respond to your question. This study's population consists of the five department heads of the grocery chain Carrefour. The national manager, the head of e-commerce and operations, the head of information and communications technology, the head of a retail location, the head of finance, the head of sales, and the head of a sales division were all managers. It was chosen to factor in the company's upper management since they are in the best position to provide the necessary information and play an essential role in running the business.

3.4 Data Collection

Both primary and secondary sources of information were used in this inquiry. An interview guide is a data collecting tool that may be conveniently administered via a straightforward and uncomplicated method to the investigation of research-related values and reasons (Kaurai, 2016). The interview outline included questions pertaining to the interviewees' background information, the expansion of online commerce, and covid 19. For the previous 10 years (2011 to 2020), secondary data was gathered on a yearly basis. The secondary data comprised of the management of cost leadership, differentiation of services and focus on customer demand of Carrefour. The information was extracted from the Carrefour company's annual reports.

The data was collected from senior and intermediate managers, as well as their equivalents, who all had a minimum of two years of experience working for Carrefour Limited. The targeted population consisted of five individuals who were employed as part of the management team. Open-ended questions were posed to the participants so that the research instrument could collect the necessary information from them; these questions lead to more inquiries in the event that the participants did not provide an answer. All of the interviews were conducted by the researcher. The interview guide was administered either in person or over an online platform such as Zoom.

3.5 Data Analysis

Analyzing qualitative data from the interview guide, the researcher will draw judgments about how different kinds of data will be linked together. Content analysis was used so that we could evaluate the response, come to some findings, and formulate some recommendations. This research benefited much from doing content analysis because of its significance in recovery, as well as in examining the degrees of organizational behaviors, stakeholder views, and social trends (Creswell, 2003).

Analysis of secondary data from the annual reports was conducted using measures of central tendency and dispersion. Based on these findings, the researcher analyzed the degree of Carrefour e-commerce and competitive advantage.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

The purpose of this section is to provide a summary of the findings and analysis of the collected data. Data analysis was the procedure by which voluminous volumes of information were narrowed down to that which was most directly related to the study's stated aims (Cooper & Schindler, 2003). The data has been analyzed in accordance with the study's aims, which were to determine whether or not Carrefour stores in Kenya adopted online shopping and to what extent they had a competitive advantage during the covivirus 19 pandemic. The three senior executives of Carrefour Limited who were the subject of this study were the company's head of marketing, head of information and communications technology (ICT), and head of sales and country management.

4.2 Description of Analysis

In order to accomplish the goals of the study, the researchers focused their attention on five members of Carrefour Limited's senior management team. According to the findings of the

survey, there were two males and three females serving in leadership roles. The respondents provided information about the roles that they now play in the company. According to the findings of the research, each of the respondents had spent over seven years working for Carrefour Limited in a variety of positions and functions, including marketing jobs, during the course of their careers. This indicated that they had extensive expertise with the operations and procedures of the store, and as a result, they were able to supply the researcher with information that was accurate and credible. It was also said that the interviewees had worked in their most recent roles for more than two years, which was another fact that was disclosed. This indicated that they have the necessary expertise and knowledge on the topic of the study, and that they would contribute to the achievement of the goal of the research.

4.3 Adoption of E-Commerce

The researcher sought to find out how Carrefour Limited implemented the adoption of e-commerce. Carrefour's goal is to be a digital retailer by embracing omnichannel and of which e-commerce is a key driver to achieve this goal. The supermarket started by improving backend IT systems through digital transformation agenda including the websites and the Carrefour APP, integration of POS systems in-store operations, use of Artificial intelligence to monitor consumer behaviors. According to the people who were interviewed, broad technical shifts have occurred in Kenya and have had an influence on the retail business as a whole, which translates to an impact on Carrefour Limited. These respondents made this assertion over the course of the discussion. Internet access has been integrated into Carrefour Limited's business activities. The interviewees said that *“Covid 19 came and accelerated this shift as most customers moved to our digital platforms and embraced Omni*

channel buying". The evolution of technology led to the creation of the Internet as an information infrastructure. It makes it possible for numerous networks all over the world to communicate with one another, which in turn makes it possible to move data from one location on the globe to another. Because with the advent of the Internet, the globe has shrunk to the size of a hamlet, and physical separation is no longer an obstacle to effective communication. Because of this, the retail sector has embraced the Internet as a means of integrating its back-end systems and facilitating quicker communication. The Internet has enabled the transfer of data from one supermarket branch to another, as well as the holding of business meetings by telephone and the participation in teleconferences, regardless of the physical distance that separates the supermarket branches.

The study sought to establish form of e-commerce strategies, best executed in the Carrefour Limited. Carrefour Limited has introduced three new platforms: the Carrefour MAF APP, the carrefour website, and a "Valet trolley" feature. This feature allows consumers to buy online and have their purchases ready for pickup in the store. This is in addition to the 'Click and Collect' service, which will enable consumers to buy online and then stop by the mall to have their purchases transported to the trunk of their cars. It had also adopted eselling through established e-commerce platforms like JUMIA platform and Glovo to fulfill orders. Carrefour has also engaged last mile delivery providers to fulfill deliveries faster and conveniently within a maximum of three hours with options of express delivery which is within an hour. The digital and e-commerce chief said, "My objective was to establish skills throughout the whole company, so I placed e-commerce teams in departments like supply chain, product management, and sales." These groups are

accountable for educating other departments on the benefits of embracing digital technologies and fostering interdepartmental cooperation on targeted product projects.

The study sought to establish how Carrefour Limited adopted the expansion of its retail network. It is evident from the study that strategic with the main larger hypermarkets like Two rivers, hub, Bunyala anchored in the major malls and now the supermarket is moving into smaller mini markets/convenience stores which will also act as last miles or pickup centers for ecommerce customers within Nairobi like comet house coming up.

It was evident from the study findings that top management support the growth of ecommerce. The global strategy of carrefour is to become fully digital and the leading digital retailer across the globe by 2026. A lot of investments have gone into this they have developed anext gen infrastructure to support this growth, harnessing the data. The interviewees said that *“to improve operations and overall customer experience. Our strategy is to go omnichannel by integrating both our websites, mobile app and instore together”*. Currently Carrefour serves several customers from many countries. Ecommerce has also made it possible for the supermarket to get referrals from customers who have become advocates who regularly share their posts on the social media handles, this has created a community thus greatly improving its customer base and network. The interviewees were also certain that e-commerce strategy has a great potential of widening the company’s customer base in the future.

The study sought to establish online payment platforms that allow and how e payment options influenced the growth of e commerce. Carrefour limited has very efficient online payment options through MPESA with the flexible option of paying upon delivery and has

recently integrated VISA payments on their online portal/ Carrefour MAF APP, The App also gives the customers visibility of both their online and instore receipts, track orders and even view and analyze their frequent purchases.

The study sought to establish how e selling has influenced the growth of e commerce at Carrefour Limited. The findings reveal that e-selling or social commerce has influenced customer buying behaviors since most people nowadays spend most of the time on social networks. The interviewees said that *“we have integrated our website/handles to these social networks where we have created a community and some of them have turned into advocates and through these we get more traffic driven into our ecommerce website and also the app”*. The interviewees confirmed that most of their sales originate from internet-based intelligence that is available to its customers. It was confirmed that the Carrefour Limited has experienced growth in its total revenues especially over the past two years due to the adoption of e-commerce strategy. It is equally clear from the study that electronic commerce has made it possible for the Carrefour Limited to increase its market share since it enables the company to access the entire global market at minimal costs. The sales of the company have been growing over time due to increased market share that has been made possible by the adoption of the e-commerce strategy. The findings confirm that through ecommerce and social selling the supermarket has been able to recruit and retain customers who are not close to their stores, through the MAF carrefour APP its easy to place an order and have it delivered within one hour-Express deliver and 2 to 3 hours for normal deliveries and free delivery for orders above 3000. This makes it the convenient and the best possible option for customers who needs something fast and quick especially during the covid 19 period.

The study sought to establish how e procurement influenced the growth of e commerce influenced the growth of e commerce at Carrefour Limited. E-procurement provides a seamless interaction between our suppliers and our logistics and sourcing Team. One of the managers pointed out *“we have a procurement system which is web based it makes it easy for the suppliers and our Teams to monitor the Stock levels, know when to replenish”*. This has led to efficiency and cut down the procurement costs. Timely payment of supplier invoices, better supplier relationship leading to better offers which we also pass over to the consumers hence more purchases. The interviewees indicated that the supermarket imports most of the products from other countries to meet clients. The need to import the products necessitated that the supermarket has to participate in global competitive sourcing. This made it necessary for the company to resort to e-commerce alternatives since it offers the supermarket better options of sourcing for the required products. It was also evident that the need to speed up the process of procuring these products made it necessary for the supermarket to prefer electronic commerce to other methods of doing. By adopting e-commerce, the supermarket has been able to serve its customers efficiently and effectively.

4.4 E-Commerce and Competitive Advantage

The purpose of the research was to determine whether and how Carrefour Limited's use of e-commerce had given the company a competitive edge. It is evident from the study that the adoption of the e-commerce by Carrefour Limited has helped accelerate its revenue growth. Going by the financial figures presented by one of the interviewees who is the finance manager. *“Our annual turnover last year 2021 which was about kshs. 36 billion, 27% of this was from ecommerce sales, ecommerce sales grew by 139%, order growth*

124% and basket growth by 7% in 2021 .We have also Reduced Cost Per Order (CPO) by 30% between Jan and May 2022”.

There is no official research of ecommerce sales by all the leading supermarkets in kenya right now. We recently won two awards at the Kenya E-commerce awards 2022 for best app of the year and e-grocery website of the year. And that gives us a clear indication that we are the most loved brand in the retail market sector hence competitive edge over our rivals. It was revealed that e-commerce has made it possible for the firm to experience an upward trend on its revenues over the past two years. Ecommerce has also improved customer base through more acquisitions and better retention by offering superior customer experience. The company has also managed to improve its bottom line revenue due to drastic reduction in cost of operations and business transactions by adopting the e-commerce.

The study sought to establish how the adoption of e commerce has reduced its operational costs in your firm. It was revealed that electronic commerce has played a major role in ensuring that there is a high degree of efficiency and effectiveness and low operational cost at the same time. The interviewees said that *“although it’s a journey as there is also that capital investments which have gone in to support this our digital transformation agenda but generally we have been able to reduce the overall cost per order”* .For instance, the interviewees confirmed that e-commerce has made it possible for the supermarket to procure items within a very short time and this has drastically reduced the lead-time and enhanced delivery of the procured products. The E-commerce has also enabled the supermarket to reduce the time it takes to provide the required products and services to its

customers as well as the response time for any after sales services that are required by the customers.

The study sought to establish how Carrefour Limited achieved superior customer service and support. By creating a reliable ecommerce platform, customer interactions have become seamless, using insights from the ecommerce website and App. It was also evident that the supermarket has managed to attend to customer queries and complaints within a very short duration through the use of e-commerce. It was noted that *“App we have been able to use that data to increase basket and order fulfilment and we have been able to customer satisfaction, and service measures, most”*. The number of consumer complaints received by Carrefour Limited has been drastically cut down in recent years. The grocery store adheres to highly stringent policies, particularly those that prohibit selling the incorrect items to customers and emphasize the need of tailoring offerings to the requirements of individual shoppers. The respondents were united in their agreement that the value of the supermarket's goods and services has grown as a direct result of the implementation of e-commerce. In addition to this, it tailored both its goods and its services specifically to the requirements of its clientele. Carrefour Limited conducted routine product reviews in order to identify any potential deficiencies, as well as to address such deficiencies in terms of customer satisfaction. Employees are expected to not only inform consumers about the supermarket's offers, but also learn more about them and the companies they run so that they can provide sound advice and modify the supermarket's products and services to meet the needs of each individual client.

The study sought to establish how customer base of Carrefour has improved because of ecommerce. It was revealed that after the adoption of adoption of the e-commerce strategy,

it has been possible for the company to expand its customer base to customers who are not within their branch network coverage within Nairobi. There has been increased number of purchases from most of our customers the firm has ecommerce platform especially for quick and fast needs like basic commodities like milk bread and groceries and due to the convenience and speedy delivery process mostly free for orders above ksh.3000. The customer service manager lamented *“we have seen an increase in sales/purchases who would probably only walk into the stores like once a month now some do an average of 6 purchase a week through the ecommerce channels that has given us a competitive edge as these customers no longer have to visit their traditional convenient stores or dukas”*. Ecommerce has also made it possible for the supermarket to get referrals from other customers thus greatly improving its customer base and network. The interviewees were also certain that e-commerce has a great potential of widening the company’s customer base in the future.

4.5 Discussion of Findings

It was revealed that Carrefour supermarket is on track to becoming a fully digital retailer by embracing omnichannel and of which e-commerce is key driver to achieve this goal. The supermarket started by improving their backend IT systems through digital transformation agenda including the websites and the carrefour MAF APP, Integration of POS systems instore operations, use Artificial intelligence to monitor consumer behaviours. This position is also supported by Chwelos et al. (2011) who argue that e-commerce provides organizations with enormous opportunities that can enable them thrive in business. However, this can only occur if firms have access to global trade data that

helps them enhance their international sourcing, procurement, supply chain visibility, order commitment, transportation management, and collaborative capacities.

The study confirms that e-commerce a very key role in accelerating the supermarkets growth and to properly address the new consumer purchasing behaviors as indicated by the recent Nielsen research that 1 out of 4 people shop online. It was revealed that the adoption of the e-commerce strategy, has made it possible for the Carrefour limited to expand its customer base especially in areas which are not served by its branches especially for quick grocery needs. Ecommerce has also made it possible for the company to get referrals from other customers thus greatly improving its customer base and network. These findings are compatible with the statements of Peet (2000), who argues that e-commerce may stimulate and meet an increasingly wide demand, hence promoting growth in industry and international trade among a vast number of firms throughout the globe.

The supermarket has adopted MPESA as its main payment mode and has recently integrated VISA payments on our online portal. The findings provide credence to Zhu, Dong, Xu, and Kraemer's (2014) argument that the factors influencing an organization's adoption of e-commerce may be broken down into two categories: innovation and contextual factors. The characteristics that make the system work are known as innovation factors. The cost, security, compatibility, and competitive advantage of the system fall under this category.

It was revealed that electronic commerce has actually played a major role in ensuring that there is a high degree of efficiency and effectiveness and low operational cost at the same time. The interviewees confirmed that e-commerce has made it possible for the

supermarket to procure items within a very short time and this has drastically reduced the lead-time and enhanced delivery of the procured products. These results are consistent with those found by Cho (2015), who performed a research in Hong Kong's garment sector with the intention of determining the most important elements that impact the inclusion of third-party B2B portals among the participants. According to the results of the research, factors such as business size, perceived advantages, reported obstacles, and felt external pressure all had an impact on the e-commerce adoption process among the organizations.

The study confirms that e-commerce is very important in developing the supermarket's customer base and maintaining its upward growth especially during the Covid 19 period where due to the restrictions of movement the only convenient mode of purchase was online and last mile delivery. Before the adoption of the e-commerce strategy by Carrefour supermarket limited mainly relied on its stores for instore purchases this could have been disastrous during Covid to maintain just one channel alone. There has increased number of purchases from most of our customers the firm has ecommerce platform especially for quick and fast needs like basic commodities. Ecommerce has also made it possible for the supermarket to get referrals from other customers thus greatly improving its customer base and network. According to Melville, Kraemer, and Gurbaxani (2014), the data support their contention that the adoption of e-commerce in a company makes it easier for the company to communicate with both its employees and its partners about how to enhance business performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a synopsis of the results in relation to the primary purpose of the study. It discusses the results of the investigation as well as the suggestions.

5.2 Summary of Findings

The study revealed that Carrefour Limited has adopted e-commerce in various aspects of its business operations. The e-commerce Carrefour APP, Integration of POS systems instore operations, use Artificial intelligence to monitor consumer behaviors. The Internet is a global communications and information network that was made possible as a result of advances in technology. It makes it possible for different networks to link with one another on a global scale, making it possible to move data from one location on the globe to another. It was also clear from the study that Carrefour Limited uses e-commerce in making electronic payments for any information technology equipment that it purchases.

The findings reveal that e-selling or social commerce has influenced customer buying behaviors since most people nowadays spend most of the time on social networks. The sales of the supermarket have been growing over time due to increased market share that has been made possible by the adoption of the e-commerce. It was also established that e procurement influenced the growth of e commerce influenced the growth of e commerce at Carrefour Limited. E-procurement provides a seamless interaction between our suppliers and our logistics and sourcing Team. It was also evident that the need to speed up the

process of procuring these products made it necessary for the supermarket to prefer electronic commerce to other methods of doing.

The findings confirm that the effect of e-commerce on Carrefour Limited cannot be underestimated. It was revealed that electronic commerce has played a major role in ensuring that there is a high degree of efficiency and effectiveness and low operational cost at the same time. It was also established that the revenue of the supermarket has registered an upward trend since the adoption of the e-commerce strategy. This is mainly because of the expanded market share and customer base due to the adoption of electronic commerce strategy. It is evident from the study that the adoption of the e-commerce by Carrefour Limited has enabled it to make substantial improvements on its revenue. It was also evident that the supermarket has managed to attend to customer queries and complaints within a very short duration using e-commerce.

5.3 Conclusions

The study concludes that the adoption of e-commerce at Carrefour Limited has contributed to the digital agenda of the supermarket using the website and the carrefour MAF APP, Integration of POS systems instore operations, use Artificial intelligence to monitor consumer behaviors. The evolution of technology led to the creation of the Internet as an information infrastructure. It makes it possible for different networks to link with one another on a global scale, making it possible to move data from one location on the globe to another. The supermarket is moving into smaller mini markets/convenience stores which will also act as last miles or pickup centers for ecommerce customers within Nairobi like comet house coming up. Partnerships between Carrefour Limited and other pioneer e-

commerce platforms, such as Jumia, have emerged as a result of e-commerce thanks to its proliferation.

The study also concludes that the adoption of e-commerce has contributed to the overall growth of the supermarkets revenues on the last two years. It was also evident that ecommerce has helped improve customer satisfaction and offer superior customer experience.

Lastly, the study also concludes that there has been increased number of purchases from mostly customers due to adoption of e-commerce especially for quick and fast needs like basic commodities. Ecommerce has also made it possible for the supermarket to get referrals from other customers thus greatly improving its customer base and network. E-commerce has also opened more opportunities for the company in form of the global market. The amount of consumer complaints received by Carrefour Limited has been drastically cut down. The grocery store has highly stringent policies, particularly on selling the incorrect items to customers and matching products to the requirements of customers.

5.4 Recommendations

The study has revealed that e-commerce is a key driver MAF Carrefour Limited growth in Kenya. It will be important for the supermarket to continue with its focus on being a digital retailer by 2026 and compliment it with its physical stores presence by expanding into the other major towns in Kenya and deepen its partnerships with Last mile delivery channels.

It is also clear from the study that e-commerce has enabled the supermarket to improve efficiency through cost reduction of order fulfillment of ecommerce orders. It will also be

prudent for the management to explore more ways through which e-commerce can lead to further reduction in operating costs to increase bottom-line revenue of the supermarket.

According to the findings of the research, the business sector should also consider mapping out precisely which components of e-commerce are pertinent to their sector and investing extensively in those areas in order to remain competitive. Carrefour Limited has to continue investing in technology, recruitment of qualified people who are specialists in ecommerce, and improved working conditions in order to boost employee engagement and retention in order to stay competitive.

According to the results, implementing electronic commerce may have a positive and significant effect on a company's competitive edge. As a consequence of this, the management of Carrefour Limited are strongly encouraged to regularly incorporate innovative ideas into the company's product and service offerings. It would be beneficial for Carrefour Limited to invest more resources in product development and research in order to improve the overall quality and variety of their offerings.

5.5 Limitations of the Study

During the course of carrying out the study, the researcher was confronted with a number of challenges, one of which being the supermarket's stringent regulations on the confidentiality of information. The vast majority of officers were hesitant to disclose information, and the researcher was had to acquire consent from the director of Risk and compliance before they could release any information. Only senior managers were permitted to do so. As a direct consequence of this, the allotted amount of time for data collection increased.

The financial data for the organization are also not published for public consumption compared to most organizations.

Due to the fact that the researcher interviewed the senior leadership of the grocery store, the process of carrying out the study took far longer than anticipated. The sample included a limited representation from the supermarket's management team. Due to the fact that the research was based on a case study of Carrefour Limited, the study had several limitations. A few of those who were interviewed expressed reluctance because they wanted to be sure that the information would not hurt the business. The interviewees, for the most part, provided material that was generic in nature to avoid putting Carrefour Limited in a position where it may be seen by rivals.

These findings may only be limited to e-commerce adoption and not all the other aspects of information technology. Due time and because of innovations in technology, the findings may be obsolete and irrelevant hence less significant to the supermarket.

5.6 Suggestions for Further Studies

In addition to the results of this study, more research might be conducted to investigate a number of other subject areas.

The purpose of this study was to determine what kind of a competitive advantage Carrefour Limited was able to achieve throughout the covid 19 era as a result of their use of ecommerce. It is vital to do research on the competitive strategies that these companies put into practice because of the contextual differences that exist between different businesses as a result of their missions and visions.

The study concludes that using in-depth interviews with surveys to help identify answers to the difficulties is required since a mix of approaches that were employed to carry out this research as a case study method may not have entirely addressed the issue or generated accurate conclusions.

This study is not an end to itself. Similar studies can be conducted to come up with more information on the adoption of e-commerce in organizations. For instance, this study can be replicated after five years to establish the position as at that time. This is important because innovations in information technology are more rapid, and changes are likely to take place within short periods of time.

REFERENCES

- Andreu, L., Aldas, J., Bigne, J. E., & Mattila, A. S. (2010). An Analysis Of E-Business Adoption And Its Impact On Relational Quality In Travel Agency-Supplier Relationships, *Tourism Management*, 31(6), 777–787
- Aoyama, Y. (2007). Oligopoly and The Structural Paradox Of Retail Tncs: An Assessment Of Carrefour And Wal-Mart In Japan. *Journal Of Economic Geography*, 7(4), 471-490.
- Barua, A. Konana, P. Whinston, A.B. And Yin, F. (2014) An Empirical Investigation Of Net-Enabled Business Value. *MIS Quarterly*, 28, 585-620.
- Baruah, T. D. (2010). *Improving Student Retention through Technology in India*. *Asian Journal of Distance Education*, 9(2), 15-25.

- Beldona, S. Lin, K. & Yoo, J. (2012) The roles of personal innovativeness and push vs pull delivery methods in travel-oriented location-based marketing services", *Journal of Hospitality and Tourism Technology*, Vol. 3 Issue: 2, pp.86-95.
- Bhattacharjee, A. (2001) Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*, 25, 351-370
- Bowen, D. Cropanzano, R. & Gilliland, S. (2007). The Management Of Organizational Justice, *Academy Of Management Perspectives*, 21(4), 223 -229.
- Burt, S., & Mavrommatis, A. (2006). The International Transfer Of Store Brand Image. *Int. Rev. Of Retail, Distribution And Consumer Research*, 16(4), 395-413
- Cho, K. (2015). *Describing Multimedia Content Using Attention-Based Encoder-Decoder Networks*, 1, 155- 169.
- Chong, S. & Pervan, G. (2010). Factors Influencing The Extent Of Deployment Of Electronic Commerce For Small-And Medium Sized Enterprises. *Journal Of Electronic Commerce In Organizations(JECO)*, 5(1), 29-77.
- Chuang, M. L., Donegan, J. J., Ganon, M. W., & Wei, K. (2011). Walmart And Carrefour Experiences In China: Resolving The Structural Paradox. *Cross Cultural Management: An International Journal*.
- Chwelos, P. Benbasat, I. & Dexter, A. (2001) *Research Report: Empirical Test Of An EDI Adoption Model*, 12(3), 200 -265.

- Colla, E., & Dupuis, M. (2002). Research And Managerial Issues On Global Retail Competition: Carrefour/Wal-Mart. *International Journal Of Retail & Distribution Management*.
- Cooper, D. R. & Schindler, P.S. (2000), *Business Research methods*, seventh edition, New York: Irwin/ McGraw-Hill.
- Coursaris, C. Hassanein, K. Head, M. & Bontis, N. The impact of distractions on the usability and *intention to use mobile devices for wireless data services*, 28(4), 1439 – 1449.
- Creswell, J.W. (2003) Research design: qualitative, quantitative, and mixed methods approaches (2nd Edition), *Thousand Oaks, CA: Sage Publications*.
- Creswell, J.W. (2003) Research design: qualitative, quantitative, and mixed methods approaches (2nd Edition), *Thousand Oaks, CA: Sage Publications*
- Daniel, J. (2020). Education and the COVID-19 pandemic. *Prospects*, 49(1), 91-96.
- Davis, F. (1989) Perceived Usefulness, Perceived Ease of Use, and *User Acceptance of Information Technology*. *MIS Quarterly*, 13, 319-340.
- Drees, J. M., & Heugens, P. P. (2013). Synthesizing and extending resource dependence theory: A meta-analysis. *Journal of Management*, 39(6), 1666-1698.
- Groover, M. P. (2014). *Fundamentals of Modern Manufacturing: Materials, Processes, and Systems Fifth edition*. USA: Wiley.
- Halilovic, S. & Cicic, M. (2013). Segementation of Information systems Users: *The Finite Mixture Partial Least Squares Method*, 25(4), 14 – 25.

- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of management*, 35(6), 1404-1427.
- Hoek, R. V. (2020). Responding To COVID-19 Supply Chain Risks—Insights From Supply Chain Change Management, Total Cost Of Ownership And Supplier Segmentation Theory. *Logistics*, 4(4), 23
- Huang, R., Zmud, R. W., & Price, R. L. (2010). Influencing The Effectiveness Of IT Governance Practices Through Steering Committees And Communication Policies,” *European Journal Of Information Systems* (19:3), Pp. 288-302
- Hurt, S. (2002). The Carrefour Group—The First 25 Years. *Retailing-Critical Concepts*, 3, 78-99
- Jardim-Goncalves, R., Grilo, A. And Steiger-Garcao, A. (2006) Challenging The Interoperability Between Computers In Industry With MDA And SOA, *Computers In Industry*, Vol. 57, No. 8–9, Pp. 679- 689, Dec. 2006.
- Kalakota, R., & Whinston, A.B. (2007). *Electronic Commerce: A Manager's Guide*. Addison-Wesley, Reading, MA
- Karimi, J., Bhattacharjee, A., Gupta, Y. P., & Somers, T. M. 2000. The Effects Of MIS Steering Committees On Information Technology Management Sophistication, *Journal Of Management Information Systems* (17:2), 207-230
- Kaurai, P. M. (2016). Influence of strategic change management practices on performance of Kenya National Highways Authority. *Unpublished MBA Project: University of Nairobi*.

- King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & management*, 43(6), 740-755.
- Klein, R., Rai, A. & Straub, D. W. (2010). Competitive and Cooperative Positioning in Supply Chain Logistics Relationships, *Decision Sciences*, 38(4), 611-646.
- Kombo, D.K. & Tromp, D.L. A. (2006). *Proposal and Thesis Writing*. Nairobi: Pauline Publications.
- Lagoarde-Segot, T. & Leoni, P. L. (2010). *Pandemics Of The Poor And Banking Stability*. [Http://Ssrn.Com/Abstract=2055954](http://ssrn.com/abstract=2055954)
- Lawrence, J. & Tar, U. (2010). *Barriers To E-Commerce In Developing Countries*. *Information, Society And Justice*, 3(1), 23 – 35.
- Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for information systems*, 12(1), 50.
- Lin, C. & P, Hsieh. (2007). *The influence of technology readiness on satisfaction and behavioural intentions toward self-service technologies*. 23, 1597 – 1615.
- Lopez-Nicolas, C. & Soto-Acosta, P. (2010). Analyzing ICT Adoption and Use Effects on Knowledge Creation: *An Empirical Investigation in SMEs*. *International Journal of Information Management* 30 (6), 521-528.
- Madsen, S., Haslam, C. R., & Nielsen, J. A. (2020). Accelerated Digital Transformation: The Case Of The Online University Caused By Covid-19. In *IRIS: Selected Papers Of The Information Systems Research Seminar In Scandinavia* (No. 11).

Scandinavian Chapter Of The Association For Information Systems (AIS)-
Scandinavian IRIS.

Madsen, S., Haslam, C. R., & Nielsen, J. A. (2020). Accelerated Digital Transformation:
The Case of The Online University Caused By Covid-19. In *IRIS: Selected Papers
of the Information Systems Research Seminar in Scandinavia* (No. 11).
Scandinavian Chapter of the Association for Information Systems (AIS)-
Scandinavian IRIS.

Melville N., Kraemer K., & Gurbaxani V. (2014). "Review: Information Technology And
Organizational Performance: An Integrative Model Of IT Business Value," *MIS
Quarterly* (28:2), Pp. 283-322.

Meroño-Cerdan, A. L., & Soto-Acosta, P. (2013). External Web Content And Its Influence
On Organizational Performance. *European Journal Of Information Systems*, 16(1),
66–80.

Morosan, C. & Zhu, W. (2014). An empirical examination of guests 'adoption of
interactive mobile technologies in hotels: *revisiting cognitive absorption,
playfulness, and security*. 69(3), 223 – 229.

Ngugi, E.W (2016). *E-commerce security and performance of SMEs in Nairobi, Kenya*,
Unpublished MBA Project, University of Nairobi.

Niederhauser, D. & Perkmen, S. (2010). Beyond Self-Efficacy. Measuring Pre-Service
Teachers 'Instructional *Technology Outcome Expectations*, 26(3), 436 – 442.

- Niehans, M.K (2006). Social Structure, Employee Mobility, And Circulation Of Client Ties. *Academy Of Management Review*, 5(2),255 – 265.
- Nienhüser, W. (2008). Resource dependence theory-How well does it explain behavior of organizations?. *management revue*, 9-32.
- Olorundare, J. K., Ahiauzu, C. N., Thompson, A. F. B., Olorundare, A. O., Ekanoye, O. E., Akinbo, A., &Ayorinde, A. (2020). Impact of COVID-19 Contagion on Digital Transformation and Economy.*American Journal of Science, Engineering and Technology*, 5(4), 158.
- Omolo, D. (2016). *The Evolving Online Ecosystem In Africa And How It Is Impacting Shopping Behaviour. Is E-Tail Therapy The New Retail Therapy.* 6 – 33.
- Pantano, E. (2014). Innovation Drivers In Retail Industry. *International Journal Of Information Management*, 34(3), 344-350.
- Piccoli, Gabriele And Ives, Blake. 2005. "IT-Dependent Strategic Initiatives And Sustained Competitive Advantage: A Review And Synthesis Of The Literature," *MIS Quarterly*, (29: 4).
- Rahim, M. Shanks, G & Johnston. (2011). *A Cross Imdustry Comparison Of Inter-Organisational Systems Implementation Activities*, 11(2), 215 – 243.
- Singh, N., & Kundu, S. (2002). Explaining the growth of e-commerce corporations (ECCs): an extension and application of the eclectic paradigm. *Journal of International Business Studies*, 33(4), 679-697.

- Soto, P. (2005). Examining E-Business Impact On Firm Performance Through Website Analysis. *International Journal Of E-Business* 3(6), 583-589.
- Teo, H. Wei K. & Benbasat, I. (2013). Predicting Intention To Adopt Interorganizational Linkages: *An Institutional Perspective*, *MIS Quarterly*, 27(1) 19-49.
- Tsai, Yuan-Cheng & And *Internet Marketing Of Elderly Products: A Review*. *Archives Of Gerontology And Geriatrics*, 55: 126–132.
- Turban, E., Lee, J., King, D., & Chung, H.M. (2009). *Electronic Commerce: A Managerial Perspective*. Prentice-Hall, New Jersey, USA
- Wanjau, K. Macharia, R. & Ayodo E. (2012) *Factors Affecting Adoption of Electronic Commerce among Small Medium Enterprises in Kenya: Survey of Tour and Travel Firms in Nairobi*, 34. 11- 23.
- WHO (2020^a). Coronavirus Disease 2019 (COVID-19) Situation Report. Geneva: World Health Organisation, Report, 72.
- Wixom, B. & Watson, H. (2010). The BI-Based Organization, *International Journal Of Business Intelligence Research*, 1. 13-28.
- Zhu, K., Dong, S., Xu, S. And Kraemer, K. (2006) Innovation Diffusion In Global Contexts: *Determinants Of Post-Adoption Digital Transformation Of European Companies*. *European Journal Of Information Systems*, 15, 601-616.
- Zwass, V., (2006). Electronic Commerce: Structures And Issues. *International Journal Of Electronic. Commerce* 1, 3–23.

APPENDIX

Appendix I: Interview Guide

SECTION A: INTERVIEWEE PROFILE

1. For how long have you been working with Carrefour Limited.
2. What current position do you hold in the Carrefour Limited
3. For how long have you been holding the current position

SECTION B; ADOPTION OF ECOMMERCE

4. How has Carrefour Limited implemented the adoption of ecommerce, in your opinion?
5. Which form of e-commerce strategies, in your opinion, is best executed in the Carrefour Limited?
6. Which form of e-commerce do you think the corporation has used the least?
7. How has Carrefour Limited adopted the expansion of its retail network, in your opinion?
8. Does the top management support the growth of ecommerce?
9. Which online payment platforms do you allow and How has the e payment options influenced the growth of e commerce?
10. How has e selling influenced the growth of e commerce?
11. How has e procurement influenced the growth of e commerce?

PART D: E-COMMERCE AND COMPETITIVE ADVANTAGE

- 9) In your view, how has the competitive advantage at Carrefour Limited been as a result of e commerce adoption?
- 10) Can you conclude that the adoption of e commerce has reduced its operational costs in your firm?
- 11) Has Carrefour Limited achieved superior customer service and support?

12) In your view, has customer base of e commerce improved as a result of competitive advantage.

Thank you for your co-operation