# E-COMMERCE STRATEGIES AND ORGANIZATIONAL PERFORMANCE IN THE MANUFACTURING SECTOR IN NAIROBI CITY COUNTY, KENYA.

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# **DECLARATION**

This project is my original work which has never been presented for an award of a

degree or any other certification in any other university:					
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This research project has been submitted for examination with my approval as					
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# **DEDICATION**

I dedicate this project to my mum Mary Sinaida and Jacinta Nyawira, sister Nancy Ngari and my lovely daughter Veronica Yael and my best friend Innocenter Moraa for their moral support and encouragement.

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#### **OPERATIONAL DEFINITION OF TERMS**

**Ecommerce** All electronically mediated transactions between

organizations and third parties in such areas as

communication, product/service delivery, making

payments, and business processes among others enable

cost-cutting and at the same time increase speed and

quality of service delivery and online buying and selling

of products and information.

Manufacturing firms Manufacturing corporations include companies that

obtain certain products as inputs and process these

inputs to value additional final products for sale.

Micro, Small, and Medium-

sized Enterprises

Firms are categorized by size with micro-enterprises having 1-9 employees; small enterprises having 10-49

employees, and medium enterprises having 50 - 250

employees.

**Performance** Measurements of what the company has achieved.

**E-Platform** A software application that allows businesses that are

online to manage their website, marketing sales, and

operation

**E-Payment** Paying for goods and services on the internet using

electronic devices such as computers, smartphones, or

tablets which include various methods like credit or

debit card payments or bank transfers.

**E-logistics** The logistical process governs everything related to the

online marketplace.

## ABBREVIATIONS AND ACRONYMS

**B2B:** Business-to-Business

**B2C:** Business-to-Consumer

**CAK:** Communication Authority of Kenya

**E-business:** Electronic Business

**E-commerce:** Electronic Commerce

**E-payment:** Electronic Payment

**GDP:** Gross domestic product

**ICT:** Information Communication Technology

**IP:** Internet Protocol

**IS:** Information System

ISP: Internet Service ProviderIT: Information Technology

**KSF:** Key Success Factors

**MBA:** Master of Business Administration

**MSMEs:** Micro, Small, and Medium-sized Enterprises

NACOSTI: National Commission for Science, Technology, and

Innovation

**SME:** Small and Medium Enterprises

**SPSS:** Statistical Package for the Social Sciences

**UNCTAD:** United Nations Conference on Trade and

Development

**UX:** User Experience

WTO: World Trade Organization

#### **ABSTRACT**

Despite increased internet usage in Kenya, the manufacturing sector has been experiencing more and heightened challenges contributing to its flat growth rate for the last decade with global developments such as the latest arising from the COVID-19 virus affecting logistics and supply chains. The study, therefore, sought to examine e-commerce strategies' effects on organizational performance in the manufacturing sector within Nairobi County, Kenya. The specific objectives of the study included examining the effects of e-platform strategy on corporate performance, determining how e-payment strategy options influence corporate performance, and finding out the effects of e-logistic strategy on corporate performance. The study was anchored on the unified theory of acceptance and use of technology (UTAUT), resource-based view theory, and task technology fit theory. The study employed a descriptive research design where primary data was collected using questionnaires from the listed manufacturing industries with a target population that comprised 69 manufacturing firms. Sampling was done in two stages; random sampling to select the number of firms and purposive to select the respondents who were the key managers in IT, finance, logistics, and marketing departments. In data analysis, quantitative data were collected and analyzed using descriptive statistics and inferential with the aid of the software Statistical Packages for Social Sciences (SPSS). The mean and standard deviation of the study was enumerated and presented in tables, graphs, and charts. The inferential statistics was done by use of regression and correlation analysis to prove the strength and the interdependence between the dependent and independent variables. Construct validity showed a description of whether support is given by the case study concerning the interpretation of the variables in the study, Cronbach's Alpha technique was used to estimate the reliability of the research instrument. This study is significant in that it will benefit the Government of Kenya in understanding to what extent e-commerce strategies are being used in the manufacturing sector. The Managers of the manufacturing companies will also benefit by understanding what strategy works well on performance and academicians and future researchers will find this study of great importance to them as they use the findings of the study as the basis for further research to fill the available and identified research gaps.

#### **CHAPTER ONE**

#### INTRODUCTION

## 1.1 Background study

In defiance of the major role of the manufacturing sector in Kenya's growing economy, its contribution is currently stagnating at 10% of the Gross Domestic Product (GDP) with an expectation of 15% by 2022 which is under the big four agenda according to KAMS (2018). Recently globalization has led to an increased rate of competition between manufacturing firms which has brought about a struggle in organizations with customers' rapid change of desires, shrinking response time, shrinking product life cycle as well demanding employees, especially in the manufacturing industry. This in return has created a more competitive business environment forcing companies to be effective and determined in recognizing and acquiring e-commerce strategies that will lead to productive performance (Atikiya,2015).

With the greatest challenge for a successful organization being change, a strategy is designed to achieve success in the face of difficulties, achieving its goal as well as improving its position in the market. E-commerce provides the ability to sell and buying of products and services using the internet (Vargas-Hernández, 2015) with e-commerce strategies being designed that exploit the organization's electronic or information and technology to achieve the desired goal (Yasmin, 2014).

According to Balamurugan & Nadu, (2018), e-commerce rapid growth has allowed a worldwide phenomenon by offering flexibility accessibility, and convenience to the organization and the customer where the provision of electronic platforms used to facilitate the connection between the existing and potential customers has been

effective, electronic payment for allowing a financial commitment involving the purchaser and vendor by use of the internet while e-logistics allows the transfer of goods sold through the internet.

Globally, China has been dubbed as the world manufacturing superpower with its contributions to small and medium enterprises (SMEs) considered a primary instigator responsible for the rapidly growing economy by generating a 60% of GDP in China accounting for beyond than 90% of all companies (Tang et al., 2020). The United States of America is ranked second after China displacing it as the largest manufacturing country in 2010 contributing 18% of the world's goods and offering a great share of employment with a GDP of \$2.2 trillion.

In Africa, the manufacturing sector is very important due to its contribution to the country's economic growth although it is significantly underutilized as compared to other economies globally. According to IMF, (2019) about 20 economies in the region of Africa, which the sub-Sahara records about 45 percent with 34% of the region's GDP accounting for 1% of the global GDP which is at 10%.Nigeria's manufacturing industry has gone through a tough experience, its economy is regarded as a regional power in Africa by the economist (2014) to being the most significant contributor to the continent overtaking south Africa (Onwutalobi, 2016).

Kenya has the largest economy in East Africa which creates employment and generates income for the economy. The world economic forum ranks Kenya 4<sup>th</sup> in Africa in terms of competitive advantage in the international market and holds a second position after South Africa due to its Innovation and complexity indicated by high skilled labor force (Signé & Johnson, 2018).

## 1.1.1 Organization performance

The measurements of performance are of vital necessity to determine the success and failure of a firm that requires proper firm strategies (Kabuba, 2014). Corporates play a major role in our everyday life, whereby successful corporates enable the growth of a nation by attaining success by first satisfying the interest of all partners: shareholders who invest and assume the greatest risk of the company, employees, customers, suppliers, and creditors in the business who highly depend on firm performance especially with the highly competitive rate globally and with the rise of technology (Violeta, 2015).

The business environment is experiencing change with the globalization of the economy where performance is highly linked with the development of the firm's skills, ability, knowledge, and experience (Muthoni & Kinyua, 2020) which are used to bring about the performance of the organization that is of key concern in strategic management practices and research. To survive in a competitive environment, the company needs to function in conditions of performance to be regarded as performing globally. Organizational performance is measured regarding financial or non-financial indicators to assess the ability of the organization in moving the business toward the desired goal (Wamiori, 2019). The goals are expressed through targets in areas such as productivity, efficiency, sales revenue, and return on investments.

E-commerce has become transformational in that, incorporating its strategies in a firm's operations, especially in the manufacturing industry is a necessity in running a competitive business considering the interactions customers have with organizations allowing them to come back as well as refer to others which is the overall customer experience. The usage of online payment is experiencing growth in the market and

customers are now gaining popularity with it (Ul et al., 2017) enabling fast and safe transactions.

The emergence of platforms because of e-commerce has shown benefits in the provision of large potential consumer markets, lowering costs of transportation saving time, and overcoming the geographical reach constraint. In this case, the end-to-end process of packaging, shipping, and payments are well supervised with the delivery of data analysis tools contributing to a reputation and creating consumer trust in the MSMEs UNCTAD,(2018).

The evaluation of satisfaction is an ascertained means of how effective e-commerce is in the digital world where businesses have to deal with e-customers who require experiencing good engagement and user interface which is used to gauge the overall performance of the firm according to Kennedy and Kundu,( 2018). Delivery of products and services within a short period is a key concern since it influences customer satisfaction requiring firms to have a proper logistics system that has the flexibility of delivering the goods to a buyer's home (Fox, 2018). The study will adopt two measures of performance profitability and customer satisfaction.

## 1.1.2 E-commerce strategies

E-commerce is experiencing rapid growth in today's digital world where it has become the alternative to the traditional exchange of products and services and the data /funds released over the internet. With e-commerce showing great potential for the current and future markets, it has brought about a different mode of interacting with customers as well as providing opportunities for companies in different sectors to improve in existence as well as cutting down on the intermediary cost that reduces the price of the products and services while remaining competitive in the market. The success of e-commerce in a company is facilitated by the existence of several

components such as having an e-commerce platform and maintaining an e-logistic and e-payment system which according to (Yang, 2022) has saturated various industries in the global economy. The e-commerce strategy will be based on these components. In this study, three e-commerce strategies are adopted: e-commerce platform strategy, e-logistic strategy, and e-payment strategy.

The e-commerce platform strategy is built on interactivity, product design, and user design (UX) which according to research done by the Nielson company (2015), at the beginning of the second phase in the e-commerce growth, social networking merely helped consumers to connect with friends, but now social networking websites are serving a wider purpose. Most savvy brands are using social networking platforms to further their digital connections with consumers to launch products and advertising, feedback, and facilitate purchases termed social commerce to bring forth high performance in the company through high sales and consumer data (Ha et al., 2022) due to close interactions with their customers.

The e-logistics strategy responds to the fast e-commerce development whereby customers order variety and timeliness a growth that has led to high requirements for logistics services in the B2C e-commerce business(Wang, 2015). During the COVID -19 pandemic this was evident, especially in developing countries where the movement was highly restricted (Reardon et al., 2021) allowing manufacturing industries in the food sector to pivot with wholesale and logistics providers by adjusting to business strategies and operations to respond to the COVID -19 regulations. For e-commerce to function efficiently it is mandatory to have an e-logistic system that will offer warehousing, inventory delivering, cash-on-delivery handling, product return, invoicing, and most important express delivery which is the

core of e-commerce while companies consider price, reliability, quality, and service to bring about profitability.

The e-payment system strategy on the other hand is responsible for handling payment for goods and services. The dawn of e-commerce is in sync with the internet growth which has fostered the payment process digitizing by providing several e-payment online payment forms like mobile wallets, electronic cash, contactless payments, credit and debit cards, contactless payments, and others. The recognition of mobile payment day by day shows an advancing transition towards an optimistic future of prospects review along with innovations in technology allowing customers to have multiple ways of purchasing e-banking, M-payments, e-cash, internet banking, online banking, and e-finance(Ul *et al.*, 2017).

In this case companies in the manufacturing industries need to understand better the e-commerce strategies (United Nations, 2017) which are of great importance while considering establishing the effects of corporate performance by the continuous process of identifying and measuring the profitability and the overall commerce effectiveness through the e-commerce strategies: platforms, payments, and logistics.

## 1.1.3 The manufacturing sector in Nairobi City County Kenya

Kenya has been recognized as the African business hub and occupies a central focus within East Africa. The country has a GDP contribution of 10% which has stagnated over the last ten years with the food sub-sector contributing majorly 43% of the GDP followed by industrial (nonfood, machinery, fuel, and lubricants) and other assets, consumer goods, and delivering equipment in the industry. Consequently, it can be stated that Kenya is experiencing deindustrialization where many of the firms are still underdeveloped.

The manufacturing industry in Kenya lags compared to other industries in terms of the economy whereas the service sector continues to dominate thus calling for structural change to revive the manufacturing industry which tends to be labor-intensive leading to job creation for the majority of the youth with no employment as explained by the Kenya Association of Manufacturers (KAM). As a result, vision 2030 has been designed to revamp the manufacturing industry to attain a GDP of 15% by the year 2022 because of its role in the economy by contributing to the long-term prosperity of the country.

The Kenyan manufacturing structure comprises micro, small and medium, and large industries and the industrial activities are mostly centered in Nairobi, Kisumu, and Mombasa (Kittony, 2017) leading to the country's embodiments of geographical and global markets thus Common Markets for East and Southern Africa(COMESA) and the East African Community (EAC) bringing about international investments in Kenya (Kinyanjui, 2015).

# 1.2 Statement problem

The manufacturing sector which contributes to the Kenyan economy, according to KAM (2018) is experiencing a stagnant growth of 10% from the expected 15% by 2022 as aspired under vision 2030. With the sector facing challenges of the high cost of input in labor, logistics, and also technology innovation due to the lack of adoption of new and advanced technologies and innovative practices most manufacturing firms in Kenya are not able to effectively leverage technology considering many studies have singled out the corporate level for support and guidance as to the most critical factor for the implementation of technology innovation and e-commerce usage (Were 2016).

Several studies have been done by Ndung'u and Were (2016), Waithaka and Mnkandla, (2017), Mwaura and Obonyo, (2018), and Kenney *et al.*, (2019). The studies focused on factors affecting effective logistics management, challenges of mobile apps in e-commerce in the manufacturing sector, and the effects of the adoption of websites on performance. From these studies, it is observed that a few studies have been done on e-commerce strategies and those so far have not assessed the role of e-payment, e-platforms, and e-logistics in a single test with no study being done in the manufacturing industry with majority being done as case studies of single companies.

Global developments support the case for the adoption of e-commerce strategies by manufacturing firms. The latest arise from the covid-19 virus which has affected logistics and supply chains. According to IMF, (APRIL 2020), the expectation of a slowdown to 1% in 2020 which should pick up to 6.1% in 2021 due to the Novel coronavirus that has led to many disruptions not only to the Kenyan economy but also globally cutting the supply chain and obstructing production and manufacturing (Hasanat *et al.*, 2020). There is however scarce evidence on which e-commerce strategies to be approached holistically to assist in enhancing performance among Kenyan companies. Consequently, research in this instance will enlighten managers on what e-commerce strategies should be adopted to address areas of uninterrupted logistics, payment, and platform in the case of customer interactions. The aim of the research seeks therefore the effects of e-commerce strategy on the organizational performance of manufacturing companies in Nairobi city county Kenya.

## 1.3 Study Objectives

The principal purpose of the research was to seek E-commerce strategies' effects on organization performance within the manufacturing sector in Nairobi city county, Kenya.

## **Specific Objectives**

- i. To examine the e-commerce platform strategy effects on the organization's performance in the manufacturing sector in Nairobi City County Kenya.
- **ii.** To determine the effect of e-payment strategy options, on the organization's performance in the manufacturing sector in Nairobi City County, Kenya.
- **iii.** To find out the effects of e-logistics strategy on the organization's performance in the manufacturing sector in Nairobi City County, Kenya.

## **1.4 Research Questions**

- i. What are e-commerce platform strategy effects on organization performance in the manufacturing sector in Nairobi City County?
- ii. How does the e-payment strategy option influence the organization's performance in the manufacturing sector in Nairobi City County?
- **iii.** What are the e-logistic strategy effects on the organization's performance in the manufacturing sector in Nairobi City County?

## 1.5 Significance of the Study

The research is instrumental in providing information to the managers in the e-commerce sector where they will be able to have a better understanding of strategies that aid in organization performance in the manufacturing industry and thus facilitate the growth of their businesses. Managers from other organizations will also benefit in that they will be able to adopt the strategies if at they have not. Government policy developers will benefit from the information to understand the e-commerce sector in

addition to the formulation and enforcement of a legal system that would aid in facilitating the successful operation of the industry. The research will equally be fundamental to the academic environment as well as advanced research and knowledge on e-commerce strategies contributions and organization performance, especially in emerging markets. The study serves as an empirical source for later research and instigates prospective studies in the field for building literature that is adequate in that regard. Contributions to existing literature resting on e-commerce strategies and organization performance in the context of developing economies like Kenya will also be made. Potential investors will also benefit from the research where they will be able to understand how the e-commerce strategies affect the organization's performance thus attracting foreign and local industries in the sector which will improve the GDP of the country and provide jobs to the citizens.

## 1.6 The Scope of the Study

The research on e-commerce strategies and organization performance prioritized 69 manufacturing companies that are representatives of the Kenya Association of Manufacturers (KAM). Although covering all manufacturing sectors in Kenya could have brought about better results but this study was specifically limited to those manufacturing firms located in Nairobi where they were selected from three industrial zones located with the decision being dependent on the certainty that 80% of the companies are centralized between Nairobi and its environs and its immediate vicinity. Additionally, the respondents were the IT, finance, marketing, and logistics managers that are involved in the day-to-day activities and decisions of the organization.

## 1.7 Study limitations

Considering that the study only looked at the manufacturing industries based in Nairobi City County, causing a limitation. The methodology used to collect data due to the COVID -19 pandemic proved to be a challenge. Due to limited time and financial constraints other counties and sectors were not considered thus for more conclusive results they should be considered.

## 1.8 The organization

The featured chapters were three with chapter one comprising subtopics covering the background research, problem statement, study objectives, and research significance along with the scope and limitation of the research. Chapter two entails a theoretical and empirical review presentation, with the conceptual framework by which the study was postulated. Furthermore, the literary work applied for obtaining the project was included. The third chapter outlined a variety of approaches that are examined for project development; Research design, target population together with the sampling methods stating the attainment of sample respondents. The fourth chapter entails a discussion of research findings that include response rate, demographics, descriptive statistics, and regression analysis with the data being presented in form of graphs, tables, and charts. Chapter five covers the conclusion, recommendation, and proposals for further research.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

The segment will evenly consider the theoretical and empirical literature of various authors based on corporate performance in the manufacturing of e-commerce. It reviews the theories and models that are versant in e-commerce and organization performance. The empirical review follows the literature basing the concepts of the study; the e-commerce platform, e-commerce payment systems, and e-commerce logistics are featured as a conceptual framework. Conclusively, an outline of relevance is carried out and as a consequence a realization of gaps within the literature linking to the study's research problem.

#### 2.2 Theoretical Review

Theories reviewed to explain the study variables comprise of Resource-based view, Unified Theory of Acceptance and Use of Technology (UTAUT) as well as Task technology fit theory.

#### 2.2.1 Resource-based view theory

The theory arose in the 1980s and 1990s, after major works by Edith Penrose 1958 on the theory of enterprise growth, RBV of the firm by Wernerfelt Birger 1984 was later developed by Jay Barney 1991 as firm resources and sustainable competitive advantage.

This theory links the firm resources and capabilities to the organization's performance (Barney, 1991) and suggests that heterogeneity or the firm-level differences among the firms can exist allowing them to have sustained competitive advantage, thus RBV emphasizes that to maximize returns, the strategic choice, charging the firm

management with identifying, developing and positioning the key resources is very crucial.

The RBV framework identified by Barney (1991) explains that for a resource to have value, it must exploit opportunities or neutralize threats from a competitor, must be rare by not being available for the competitors, imperfectly imitable by being resistant to duplication and also it must not possess substitutes to gain and sustained competitive advantage. The assumption outlined by the theory is that every company is different in terms of the resources that it controls which is resource heterogeneity while resource immobility is the stability of resources across the firm where heterogeneity can be enduring.

Information and organizational processes that are controlled by the firm enabling in planning and implementation of policies that better its organizational efficiency and effectiveness (Barney, 1991) are firm resources. The firm resources are considered assets and strengths which can provide sustained competitive advantage that firms need to cultivate, identify and exploit the capabilities and are a part of resources that enable a company to use resources to devise and implement strategies that makes growth possible.

According to (Zhuang & Lederer, 2006), business and human resources can be valuable, heterogeneous, and immobile and compliments IT which can be imitated bringing about success in firm performance since IT cannot be used alone. The consideration of the RBV framework in the IS literature is to explain how the firm creates value on IT resources and organizational capacity to leverage their IT investments and ee-commerce to establish unique internet-enabled capabilities that bring about e-commerce effectiveness to which (Zhu, 2014), e-commerce capabilities are suggested to consist of four scopes; information where the firm provides important

details about the firm, products, and services, transaction which includes an online transaction of purchases and payments, customization which is the interaction of the user and the company by configuration account management and real-time support and with back end integration includes order fulfillment, packaging processing and delivery.

The resource-based view theory will be relevant to this study in explaining the necessity of a company's performance to build on its competitive advantage in a manner of defining the expected attainment outcomes in terms of profitability with commerce effectiveness based on customer satisfaction.

However, the RBV theory experiences criticism that in a dynamic environment where innovations are changing, it's not possible to achieve sustained competitive advantage is not achievable thus staying ahead of the competition. RBV states that sustained competitive advantage is reached once a resource meets the criteria of VRIN thus for consistent developing situations, favorable positions will be short-term and not enduring (Barney, 1991).

Another drawback is the suggestion of managerial influence where they have limited possibilities for the creation of invariable competitive advantage barney (2007) where the framework implies that if resources can be acquired by a firm at a competitive value then those resources are worthy of being imitated and a cause of competitive parity.

## 2.2.2 Task technology fit theory

In 1995 Goodhue and Thompson developed this theory which comprises of fairly simple but powerful perspective, suggesting that a better fit linking technology and the task will result in better performance separate from TAM where consideration is

on applying beliefs, perceived ease of use perceives usefulness to point out yet expound user acceptance of IT. TTF is the first theory to aim to explore the post-adoption aspect of technology, utilization unlike other prior research which had mainly focused on the antecedent of use, and utilization is widely used for the prediction and utilization of Information Technology which is the ability to perform a task.

According to (Dishaw & Strong, 1998) numerous models have been built around the concept of task-technology fit yet TTF is at the very heart of them all. Klopping and McKinney, (2004) explain that it is reasonable to expect research on consumer adaptation and online shopping supports the fact that a consumer will favor an e-commerce application whose functionalities match his/her shopping tasks. The TTF theory is very essential in checking the exact usage of technology, especially when experimenting with new technology to get feedback or even evaluating already released technology applications in the market.

Previous studies on TTF focus on improving the general TTF model whereas the TAM theory Goodhue (1995), suggested and even proved many varying dimensions of fit to validate the fit measurements. In this study, TTF will be used to support both the dependent and independent variables.

According to Agarwal, Sambamurthy, and Stair (2000), the TTF theory has been criticized for not lack of focus on individuals' psychological and situational factors like the role of top management, trust between team members and team leaders, and the responsibility of team members

## 2.2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

This theory consists of a consolidation of previous studies that are related to the Technology Acceptance Model (TAM) by Venkatesh, Morris, and Davis (2003) and later Wu and Wang (2005). The UTAUT aim is to explain a user plan usage on the information system and the subsequent utilization behavior. Venkatesh et al. (2003) incorporated four key constituents in UTAUT effort expectancy (EE), performance expectancy (PE), facilitation conditions (FC), and social influence (SI) which determines directly the usage intention and behavior towards technology as well as age, gender, experience and voluntariness which are the four key moderators of use that impact innovation adoption.

Venkatesh *et.al* (2003) states the extent to which a person accepts a system is referred to as performance expectancy. In this case, e-commerce will aid in attaining performance improvements whereas effort expectancy is the perceived horde of effort that the user necessitates into learning and operating e-commerce. The level of realization that an individual perceives as important others (bosses, peers, subordinates) should use a system in this case e-commerce is the social influence. The facilitation state is considered as the standing individual supposing the organization and technological infrastructure exist to strengthen the system use.

UTAUT model has been used by past research studies to test diversification involving the acceptance of the study. In this case, UTAUT will be used to show how e-commerce has been adopted in terms of payment, platforms, and delivery on user acceptance and use. The theory, therefore, supports the independent variables of the study.

Despite the advantageousness of reviewing the acceptance of technology, the UTAUT model is restrained since it excludes task technology fit (TTF). According to Bagozzi

(2007), this was not accepted in the previous model and thus warrants further research. Primarily, the model that underlies UTAUT fails to include task construct. Typically, users intend to use information technology if it meets their task requirements. Dishaw, Strong, and Bandy conducted a study that added the TTF construct to the UTAUT to determine whether this addition produced an improvement in explanatory power similar to that reported by Dishaw and Strong where their results produced a new model combining TTF and UTAUT. (Venkatesh & Zhang, 2010).

#### 2.3 Empirical literature

A body of research has been undertaken on performance in the manufacturing industry to ascertain measures in the manufacturing industry in Kenya that can obtain better results. This study supposes some studies done in Kenya and beyond which are beneficial to the study objective yet to be achieved.

## 2.3.1 Platform strategy and performance

There are several studies done which the study reports in this section.

A study on the use of online marketing in small and medium enterprises experience in Kenya by Wilson and Makau, (2018) where the study sought to exploit insights into SMEs' experience with online marketing use. The study employed a Qualitative research approach using case studies designed for inquiry wherein depth interviews with small business owners, IT experts, and agencies of the government of which were 110 informants. Across all sectors, Qualitative analysis and interpretations were done indicating that the usage of online marketing is well known to most SMEs, and online platforms like checki.co.ke and Jumia.co.ke are common to small business owners. Nevertheless, SMEs were the major focus as well as online marketing in the study with no mention of performance, hence this study will ascertain the e-commerce strategies with a focus on how they affect organizational performance.

Moronge, (2018) in his study on electric business practices' influence on supermarket performance in Nairobi Kenya found that eMarketing practices improve the performances of supermarkets where the study was carried out in 144 supermarkets located in Nairobi city county where descriptive research design was used where a census was conducted. The observation unit were the managers in control of operation with findings indicating that electronic business practices (e-payment, e-sourcing, e-inventory) affect the performance of supermarkets. The study established a significant relationship between electronic business practices on the performance of supermarkets. While the main study was to identify means of electronic business in supermarkets, this study will focus on e-commerce strategy on organization performance. Also, the study focused on supermarkets and its surrounding while the manufacturing sector is different from it.

A study by Lim et al.., (2016) on factors influencing the online shopping response serves as the mediator of purchase intention aiming at determining the parallel between subjective norm, perceived usefulness, and online shopping behavior. The quantitative survey method was performed by administering questionnaires to both undergraduate and postgraduate students at Malaysia Perlis university between the age of 18-34. 800 questionnaires were distributed of which 662 were valid for coding. The findings indicated that the subjective norm and perceived usefulness favorable results in purchase intention which also significantly, influences positively shopping behavior. The major limitation of the study is the sample selected is limited to university students with a higher education background whereas this study's sample size consists of 69 manufacturing companies located in Nairobi city county.

## 2.3.2 E-Payment strategy and performance

Okello, (2016) study sort to establish the electronic retail payment services effects on the financial profitability of Kenya's banking institutions, targeting a population of forty-three commercial banks. The study used secondary data from banks that are registered with the Central bank of Kenya. Results showed adoption of electronic retail payment has significantly improved the performance of the significantly enhanced banking industry performance by affirming a progression of productivity and efficiency. The study helped shed light on how payment systems affect the banking sector's performance. The study centered on seeking the effects of e-commerce strategies on organizational performance. Secondly, the study focused on the banking sector and its environs where determinants embracing the banking sector are contrary to the manufacturing sector which this study is concerned with.

The target population used a descriptive survey research design consisting of consumers who frequented customer care contributing to 680 questionnaires as the respondents' who were sampled from Kisumu, Nairobi, Eldoret, and Nakuru. statistics were employed in a study by Nyaboga *et al.*, (2015) on motivation elements utilizing e-commerce -payment services in Kenya, where the finds of the study indicate that for a consumer to keep on using mobile payment services in Kenya, they must perceive them to be useful, easy to use and enjoyable the study focus was on the consumer and use of mobile payment whereas this study will look at the payment as the strategy in e-commerce in organization performance.

In a study by Ngairah, (2016) on challenges countering e-commerce payment systems performance in Kenya's governmental departments in the case of the ministry of energy and petroleum(moep), the main objective was to establish the challenges

facing the performance of e-commerce systems. Interactive (Interviews and focus groups) and non-interactive (questionnaires and document analysis) collected and analyzed data through quantitative and qualitative techniques. The study was preoccupied with government ministries where it was found that lack of reliable infrastructure, inadequate skills, unprecedented delays lack of knowledge, and awareness of e-payment are some of the challenges impacting performance in e-commerce systems in the government ministries. This study however focused on the manufacturing sector in Nairobi city county.

## 2.3.3 E-Logistic strategy and performance

A study by Song et al., (2019) on how supply chain integrates omnichannel retailing under a logistic perspective where the main objective was to utilize resource-based theory in identifying the relationship between supply chain integration, logistic integration capability, and performance within the confines of omnichannel retailing. The evidence-based research employed a diverse technique that combines survey research and focuses on group surveying 243 china retailers. Information intergradation capability and organization were found to interstates capability in logistic management while supply chain impacts greatly financial performance. However, the study illustrates that the findings cannot be valid for other developed economies.

Another study by Nadeem *et al.*,(2018) with the prime objective to define the factors that shape ee-commerce logistics performance. Using 500 questionnaires administered to managerial employees of e-logistics companies in Pakistan, 369 were received. Descriptive statistics and SPSS version 21 were employed. The study concluded that a positive sign can be seen in staff quality and e-payment with ICT bringing about positive e-logistic performance.

Ndung'u and Were, (2016) used a descriptive research design to analyze data from 46 employees in the logistics management department in Nairobi, research basing it on influencing factors on effective logistics management within the manufacturing industry in the Kenya Sameer Africa case study. The study established that technology change highly affects effective logistic management which is measured through productivity, quick response rate, and cost reduction and inventory management is less related.

A recent study role of third-party logistics on-chain distribution performance in the delivery section in Kenya was a Bollore transport and logistics Kenya limited case (Maata and Ombui, 2018). The descriptive research design was employed where a target population of entire employees operating as part of Bollore transport and logistics in Nairobi offices of which 41 out of 138 staff and also 40 participated in the final study where it was found that third-party logistics service providers are important due to their improving quality of services which brings about financial performance improvement of reducing costs.

Erceg and Sekuloska, (2019) study revealed how companies can establish their competitive advantage on account of their e-supply strengths as well as by utilizing e-logistic and e-SCM tools to progress supply chains. The role of the study was to examine how e-logistics and e-SCM processes influence and connect to competitiveness and the application of different e-logistics and e-SCM tools and methods by companies. The case study involved DHL where a systematic literature review was used of the reviewed literature analysis together with determining the potential influence e-logistics and e-SCM have on a company's competitiveness.

# 2.4 Summary of Literature and Research Gaps

A summation of well-rounded empirical studies is presented in this segment in a table format providing a focus on knowledge gaps in the studies.

Table 2.1 reveals previous research and the identification of gaps discussed by the research study.

**Table 2.1: Summary of Literature and Research Gaps** 

Author	Topic	Objective	Methodology	Findings	Knowledge Gap
Ngairah	challenges facing the	The study's general	This study used a	Lack of reliable	The study considered
(2016)	performance of e-payment	objective was to define	descriptive research	infrastructure,	payment systems in
	systems in government	the challenges contrary to	design. It employed	inadequate skills,	the government
	ministries in Kenya the case	the performance of the E-	exploratory research to	unprecedented	ministries
	of the ministry of energy and	payment system in	explore the variables and	delays lack of	
	petroleum(moep)	government ministries in		knowledge, and	
		Kenya, a case of MOEP.		awareness of e-	
		Theoretical		payment are some	
				of the challenges	
				impacting	
				performance in e-	
				commerce systems	
				in the government	
				ministries.	

Moronge and Gichane (2018)	Electric business practices influence supermarkets' performance in Kenya.	Ascertaining the e- inventory management system's influence on the supermarkets in Kenya. To evaluate the e- sourcing influence on the performance of supermarkets in Kenya. Assessment of e-payment influence on the performance of supermarkets in Kenya. To establish the influence of e-marketing on the performance of supermarkets in Kenya.	The study utilized a descriptive cross-sectional survey research design.	The findings indicate that electronic business practices (e-payment, e-sourcing, e-inventory) affect the performance of supermarkets.	The study was conducted on Nairobi supermarkets while this study will consider the manufacturing industries in Nairobi, Kenya.
Mutuku and Kyalo (2015)	determining the effects of e- commerce on business profitability in the communication industry	Determining the effects of e-commerce on business profitability in the communication industry	Inferential and descriptive design was combined	The findings indicated that e-commerce contributes to an increased turnover and customers leading to increase profitability.	The study was conducted in the communication sector in Nairobi, Kenya.
Okello (2016)	establishing the effects of electronic retail payment services on the financial	To ascertain the impact of e-business payment services performance for	Descriptive design measured analyzed, compared, and interpreted data to conceive e-	Results indicated that e-business payment adoption has considerably	The study considered e-business payment services on the economic results of

	performance of commercial banks in Kenya	Kenyas Commercial Banks.	business payment services' impacts on commercial banks in Kenya.	improved the performance in the banking sector through enhanced productivity and efficiency	Commercial Banks in Kenya.
Nyaboga (2015)	Motivation factors and use of e-payment services in Kenya	This study therefore investigates and models both extrinsic and intrinsic motivational factors that influence the consumer to use mobile payment services in Kenya. Consumer	It involved a descriptive survey research design	The finding indicates that for a consumer to keep on using mobile payment services in Kenya, they must perceive them to be useful, easy to use, and enjoyable.	The study considered the mobile payment services in Kenya
Saetang (2017)	E-commerce strategies responding to the UX design	Investigation of e- commerce strategies that help on defining the scope and plan for e- commerce systems design	Integration of previous works that suggested strategies responding to the User Experience design (UX design).	Cultural characteristics, an online community of practices, and content marketing should be planned in the mind of UX design to gain a competitive advantage for the ecommerce system and with the use of social media as a	It considered only one e-commerce strategy in the case of UX design while this study will look into the platform, logistics, and payments.

				channel to attract more customers.	
Chao (2019)	The Advertising Effectiveness: Fighting Between Ecommerce and Traditional Retailers An Empirical Study	The main objective was to compare the advertising effectiveness of digital users and traditional retail shoppers.	Survey questionnaires were used.	Suggestions from the study that traditional media advertising is still an effective way to send messages to the target customers as compared to Smartphone advertising messages.  A strategic balance between traditional media and Smartphone advertising will make advertising more effective.	The study was undertaken in the Northeast of the US on university students while this study will be conducted in Nairobi, Kenya.
Wilson and Makau (2018)	Online marketing use in small and medium enterprises experience in Kenya	The research objective was to exploit insights into SMEs' experience with online marketing use.	The study employed a Qualitative research approach using a case studies design	Online marketing is well-known to small business owners. Many small business owners do	The study considered small business owners while this study will consider the manufacturing

				not utilize the full potential of online marketing because of an insufficient IT budget.	industries in Nairobi, Kenya
Lim (2016)	Factors influencing online shopping behavior on the mediating role of purchase intention	The purpose was to determine the relationship between subjective norms, perceived usefulness, and online shopping behavior.	Thequantitative survey method was conducted by distributing the questionnaires	The findings indicated that the subjective norm and perceived usefulness positively influence purchase intention which also significantly, and positively influences shopping behavior.	The study was conducted in Malaysia while this study will be conducted in Nairobi
Song et al., (2019)	supply chain integration in omnichannel retailing: a logistic perspective	The resource-based theory was used for the identification of the relationships between logistics integration capability, supply chain integration (SCI), and performance in the context of omnichannel retailing (OCR).	The study applied a mixed methodology integrating quantitative and qualitative analysis in	Information integration capability and organization integration capability in logistics management significantly affect SCI.	The study was carried out in China and considered logistic strategy only while this study considers platform, payment, and logistic strategies In e-commerce in Nairobi, Kenya.

Nadeem et al (2018)	performance indicators of E- logistics system with mediating role of information and communication technology(ICT	To the examination of the staff role service quality to enhance e-logistic performance.  To examine E-payments' role to enhance e-logistic performance.  To examine the mediating role of information communication technology (ICT).	Descriptive statistics and SPSS version 21 were employed	The integrated supply chain has a greater significant influence on financial performance than the operational performance of OC retailers.  Both staff quality and e-payment positively impact relations with ICT which also brought about positive e-logistic performance.	The study was carried out in Pakistan in an e-logistic firm.
Ndung'u & Were, (2016)	Factors affecting effective logistics management in the manufacturing industry in Kenya a case of Sameer Africa.	To establishment of effective logistics management through technology in the manufacturing sector in Kenya.  To find out how inventory management	The study applied a descriptive research design of the census type due to the small population of the staff in the logistic management department of Sameer Africa Limited.	The study showed that Sameer Africa limited apart from improving its inventory management systems, should ensure appropriate	It was a case study on Sameer Africa limited focusing on logistics only unlike this study which considers the e- commerce strategies

		affects effective logistics management in the manufacturing industry in Kenya.		inventory management techniques for enhancing a high degree of accuracy, reducing cycle times, and replenishment of stock	in the manufacturing industry.
Maata and Ombui (2018)	Role of third-party logistics services on supply chain performance in the distribution sector in Kenya. Methodology:	Determining the role of third-party logistics services on supply chain performance in the distribution sector in Kenya was the aim of the study	The descriptive research design was utilized with a target population of all employees working within the Bollore Transport & Logistics Kenya Limited Nairobi office.	The establishment that ICT integration leads to improving financial performance in supply chain performance within the distribution sector in Kenya while organizational policy adds little value to the financial performance of firms within the supply chain. Unique	The study considered distribution sectors in Kenya while the study will consider the manufacturing sector in Kenya.

Source (literature reviewed by the researcher (2022)

## 2.5 Conceptual Framework

This refers to a written or visual presentation of key variables to give a narrative or graphical presentation of their relationship in a study. The conceptual framework, therefore, gives the relationship which exists between dependent and independent variables.

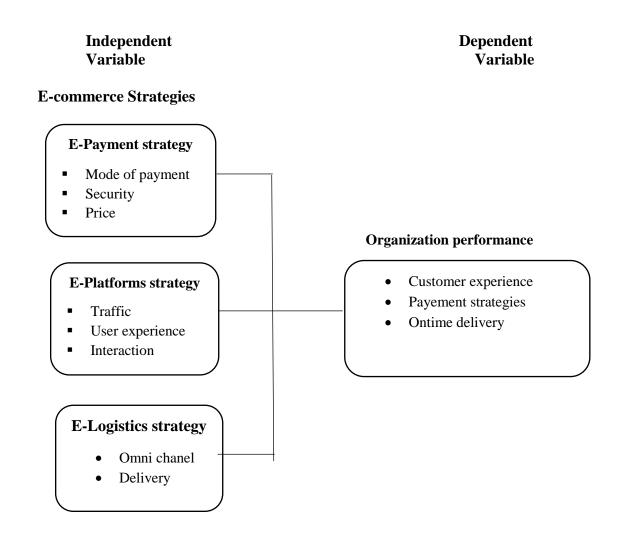


Figure 2.1: Conceptual Framework

Source: Author, (2021)

#### CHAPTER THREE

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

The section puts forward an approach to research constructed from research design, empirical model, target group, sampling and sample size, data gathering as well as instruments and approaches that will be absorbed in data analysis together with ethical issues emanating from the research.

## 3.2 Research design

The design of the research is considered the placement of conditions for data compilation and analysis aiming to connect the importance of the research purpose with the economy in operation. It's the theoretical framework whose research is executed and composes the blueprint collection, measurements, and analysis of data (Kothari, 2004).

The descriptive research design that was employed depicted the association of variables, and ideologies of the population and can also identify or even justify practical conditions as explained by (Gregory, 2002) thus the design assisted in finding information that may be cumulated for the correct character of a cluster. In this study, the descriptive design which ensured rigidity and increased accuracy was used to determine, describe, identify what is, and observe subjects in their original setup, in this case, the e-commerce strategies applied across the manufacturing industry to enhance the organization's performance.

#### 3.3 Target population

The population is a range comprises of different elements that are emphasized by a researcher by which findings via testing the sample must be generalized. Defined as the group a researcher has in mind from whom he/she will obtain the information(Ziegler & Ziegler, 2009). A sample population is a subgroup that the researcher intends to study to make generalizations about a target population(Ucc, 2018) in this case the population of the study considered was 69 manufacturing firms based in Nairobi City County with the companies being distributed into different industrial zones as presented in the given table below. The target population consisted of managers in IT, finance, logistics, and the marketing department of the manufacturing industries based in Nairobi, Kenya.

**Table 3.1: Population size** 

Zone	No. of Companies	Percentage
Mombasa Road	28	40.6
Industrial Area	21	30.4
Ruaraka	20	29
TOTAL	69	100

Source: KAMS (2019)

#### 3.4 Sampling procedures

These are plans determined before any data is gathered acquiring a sample of a specified population which is necessary to carry out the research (Kothari, 2004). Sampling is, therefore, the selection of individuals from the population in such a way that it is representative whereas a sampling frame presents the list of items in the population. The study employed probability techniques also known as random

sampling where every item across the universe holds an equal opportunity in the sample as explained by Kothari. This was used to draw samples based on the target population. The sample size was determined using the rule of thumb where 30% of the target population is satisfactory in this case 30% was 21 companies with an upward adjustment to 30 companies in case of non or poor response wherein a sample where n=30 is regarded as a large sample giving 30 companies that were selected based on Stratified random sampling method as it provided the opportunity to get adequate information systematically.

The selection of respondents in a company used purposive sampling to select key departments where officers in that department (finance manager, marketing manager, logistics manager, and IT expert) had relevant information in answering the questionnaires for the study.

Table 3.2: Sample size

Zone	Population	Sample ratio	Sample size	No. Of respondents
Mombasa	28	0.3	12	12*4=48
Industrial Area	21	0.3	9	9*4=36
Ruaraka	20	0.3	9	9*4=36
Total	69	0.3	30	120

Source KAMS (2003)

## 3.5 Data collection instruments

Open-ended and closed questionnaires were employed in the study. The questionnaires will contain three multiple sections reflecting the research objectives. Section A sought basic information from the respondent, section B, comprised the e-payment strategy, section C comprised the e-logistic strategy and section D comprise the performance. The structured questionnaires will be used for the simplicity of the respondent and that is less time to fill. In addition, they will help in speedy and simpler analysis while interpreting data.

#### 3.6 Data collection procedure

Once the university was done with authorizing the proposal, the researcher began collecting data by delivery of the instrument to the target population and collecting all questionnaires in the company of an introduction letter explaining the intent of collecting information while ensuring the respondence to the information were to be specifically used for academic purpose only.

## 3.7 Reliability and validity

#### 3.7.1 Validity

Validity is that which the research measures up with what it was intended to measure. It also explains the research results' authenticity. This study embarked on content validity indicating the level that a measuring instrument presents a suitable scope of the investigated topic. Certification of the instrument was done to allow the content to reveal its purpose and avoid uncertainty. The response option was part of the exploration to certify the presence of correct answers.

#### 3.7.2 Reliability

According to Kothari, (2004) an instrument of measurement is considered reliable if it provides constant results. Joppa, (2000) explains reliability as the extensiveness' of results being consistent over time while giving an accurate representation of the total population under the given study considering that the results can be produced under a similar methodology then the research instrument is regarded as reliable. This study considered Cronbach's Alpha to estimate the data reliability. Where Cronbach's Alpha results lie at intervals of 0 and 1 with the ones near to one regarded as strong, then the data used is reliable. A negative number suggests something is wrong with the data. A range of 0.70 and high regarding Cronbach's alpha is favorable, if it is 0.80 and above, it is better, and it is best if it is 0.90 and above.

Before issuing the questionnaires to the respondents, the researcher conducted a pilot under Mugenda (2003) is imperative to determine the questionnaires' validity and reliability to be used in this study. Pre-testing of the questionnaires consisted of a sample of 10% of the respondents posited as sufficient for pilot testing who were selected by use of purposive sampling. The sample of the pilot study, in this case, assisted by pinpointing drawbacks such as clarity in the questionnaire in the research instrument, recognizing/.loopholes in the questionnaires, and also the anticipation of any logistical problem in the actual survey.

## 3.8 Data analysis

After the collection of data, data processing was done by detecting any errors, or omissions, editing the data and classifying it into different categories for analysis. Data analysis was done using SPSS version 20. Descriptive analysis included mean and standard deviation shown in tables, graphs, and charts. Inferential statistics consisted of regression and correlation analysis explaining the strength relating the independent and dependent variables. The level of significance will be analyzed to indicate the relation between the independent and dependent variables.

Where:

Y = Performance.

 $X_1 = E$ -Platform strategy.

 $X_2 = E$ -Payment strategy.

 $X_3 = E$ -Logistics strategy.

 $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  are determining the coefficient.

 $\varepsilon$  is the error term

## 3.9 Ethical consideration

Permission by the company authorities and a letter of authorization from Kenyatta University and NACOSTI were requested before setting out to collect data. The protection of research participants was held highly regarded. The respondents were enlightened on what the study aimed to attain with the following procedures. Anonymity and confidentiality were respected by not divulging their name.

#### CHAPTER FOUR

## DATA ANALYSIS, RESULTS, AND DISCUSSION

#### 4.1 Introduction

This chapter outlines data presentation, analysis, interpretations, and discussion of findings. The main purpose was to study the e-commerce strategies on organization performance in Nairobi County the data obtained were presented in charts, graphs, and tables.

#### 4.2 Response Rate

The study had a sample size of 30 companies from a population of 60 companies with a total of 120 targeted respondents. Out of the targeted respondents, 53 respondents filled the questionnaire which is 44.12% which is supported by Mugenda and Mungenda (2003) who states that a response rate of 50% is good, 60% is better and 70% is excellent. In this case, the response rate is highly acceptable for analysis. Below shows the response rate is shown below.

Table 4.1:Respondents for sample size of populatiom of 60 companies

ITEM	FREQUENCY	PERCENTAGE
Returned questionnaire	53	44.12%
Unreturned questionnaire	67	55.83%
TOTAL	120	100

Source: Survey Data (2022)

#### 4.3 Demographics

This section shows the demographic details of the population used in the study who are the managers in the manufacturing companies. This would help in understanding and classifying responses according to what the demographic is made up of. Gender

level of academic and period of working is what the demographic utilized.

## **4.3.1** Gender of response

The use of gender demographics is to find out if the two-third rule on women is being used effectively. In this case, the finding illustrated that 60.4.3%(31/104) were men and 39.6% (21/104) were women that took part in the study. This representation is under The Kenyan Constitution 2010 in Article 27(8) of the Bill of Rights.

**Table 4.2:Gender of response** 

Gender	Frequency	Percentage	Valid	Cumulativr
			Percentage	Percentage
Male	32	60.4	60.4	60.4
Female	21	39.6	39.6	100.0
Total	53	100.0	100.0	

Source: Survey data (2022)

## 4.3.2 Age of respondents

The respondents were asked to indicate their age category and the findings are shown below in Table 4.3

Table 4.3: Age category

No. of years	Frequency	Percent	Valid	Cumulative
			Percent	Percent
26-35 Years	19	35.8	35.8	35.8
36-45 Years	23	43.4	43.4	79.2
Above 45	11	20.8	20.8	100
Years				
Total	53	100	100	

**Source: Survey Data (2022)** 

The given results for the research show that the highest number of respondents were in the 36-45 years age bracket (43.4%) followed by 26-35 Years (35.8%) and above 40 Years at (20.8%). From the findings, it's clear that middle-aged 36-45 years were the dominant group to be working in the manufacturing industries.

## 4.3.3 Duration of the company's operation

The study sought to find out how long the company has been in operation, which was necessary to show how long the company has been in existence and the results were analyzed in the table below.

Table 4.4: Duration of the company's operation

No. of years	Frequency	Percent	Valid percent	Cumulative percent
Less than 5 years	1	1.9	1.9	1.9
5-10 Years	2	3.8	3.8	5.7
10-20 Year	20	37.7	37.7	43.4
Above 20	30	56.6	56.6	100
Years				
Total	53	100	100	

Source: Survey Data (2022)

From the findings, it is evident that most manufacturing companies have been in operation for more than 20 years represented by 56.6% while 37.7% are companies that operated for 10-20 years, while 3.8% operated for 5-10 years with the least being

1.9% that operated less than 5 years. In this case, most manufacturing companies in Nairobi have been in operation for a longer time, therefore, identifying the effects of e-commerce strategies on their performance.

#### 4..3.4 Position in the firm

The finding sort to find out the position of the respondents who are the managers in the respective manufacturing industries. This was of much importance for the study since the managers represent the various department that would enable highlighting how e-commerce strategies have influenced the company's performance.



Fig 4.1: Analysis of the position in the firm.

Source: Survey Data (2022)

The findings from the research show that the marketing managers responded more at (35.8%) followed by the finance managers at (28.3%), and the IT managers and Logistics managers followed respectively at 18% and 17%.

## **4.4 Descriptive results**

This section shows how descriptive analysis highlights the relationship between the variables of the study which are E-payment strategy, E-platform strategy, E-logistics strategy, and organization performance. The descriptive analysis was done to represent and describe a collection of the data by use of tables and graphs and

summarizing the measures.

## 4.4.1 E-Commerce platform strategy

The study sort to seek how the eCommerce platform influenced the organization's performance. The respondents were required to indicate on a scale of 1-5 how the extent of various aspects was being utilized in the manufacturing organizations.

**Table 4.5: E-commerce platform strategy** 

Statements	Mean	Std dev
The company highly considers customer service a top priority	4.60	.566
The website is designed to enable our customers to interact with the company's social media platforms.	4.58	.633
The websites always ensure easy navigation	4.57	.721
The website is designed to ensure user satisfaction	4.55	.774
The product displayed on the website are always appealing /attractive to the user	4.49	.775
The company's social media platforms (Facebook, Twitter, and Instagram) are highly interactive with customers	4.47	.668
The company uses social media platforms to market products.	4.38	.686
Our online feedback platform allows dialogues with the customer in case of any issue (chatbot)	4.28	.769
Aggregate score	4.49	.699

The findings from the study indicate that manufacturing industries in Nairobi utilize websites as an e-commerce strategy. The response from the managers to the study contributed to a mean of 4.49 and std deviation of 0.699 which showed that respondents agreed to the use of websites in their respective companies. The findings indicate that the respondents highly agreed that the websites should be designed to ensure user satisfaction (M=4.550, SD 0.774), websites ensure easy navigation (M=4.57, SD=.721), the products displayed on the company's website are always appealing or attractive to the user (M=4.49, SD=.775,) the online feedback platform

allows dialogue with customer in case of any issue (M=4.28, SD=.769) the website should be designed to allow customer interaction with the customer social media platform (M=4.58, SD=.633). The findings also indicate that the respondents agree that the company highly considers customer service (M=4.60, SD=.566) and that customers use social media to market their products and services which is in agreement with a study by Mutava (2019) on the effects of e-commerce platforms on retail center stores which is a case study on Two River Mall revealed that customers prefer e-commerce platforms for purchasing their products and services than in-store This means that managers must ensure that the e-platform strategy allows a good interaction of the platform and customers.

## **4.4.2** E-commerce logistic strategy

This study aimed to find out how E-Logistics affect organizational performance in the manufacturing industries. The respondents were given a scale of 1-5 to indicate how the aspects of e-logistics affected the performance of the organization and the results are tabulated below.

Table 4.6 E-commerce logistic strategy

Statement	Mean	Std Deviation
The E-logistic strategy of the company offers a good	4.72	.495
product packaging service to our customers.	4 - 4	<b>7.7</b> 0
Ensures Customers' orders are delivered on time.	4.64	.558
The company's E -logistics strategy provides a range of delivery options.	4.62	.562
The company's E-Logistics strategy is guided by a clear policy on delivery.	4.62	.562
The company's E-Logistics strategy is guided by a refund policy.	4.60	.494
The company's E-logistic strategy ensures the customer's products are not damaged.	4.60	.599
The E-logistic strategy enables the company to offer free delivery to customers for the next purchase.	4.58	.535
The company's E-logistic strategy offers delivery tracking for customers after they purchase a product.	4.40	.743
Aggregate score	4.02	.498

**Source: Survey Data(2022)** 

The respondents agreed that E-commerce Logistics influence performance in the company as shown by the mean of 4.02 and standard deviation of .498. From the finding of the study, the respondents wherein agreement that the e-commerce logistics of the company offers good packaging to the customer (M=,4.72 Std=.495), ensures customers' products are delivered on time (M=4.68, SD=.558), the company's E-logistics strategy provides a range of delivery options (M=4.62, SD=.562). The study noted from the findings that the company's E-Logistics strategy is guided by a clear policy on delivery (M=4.62, SD=.562), and the company's E-Logistics strategy is guided by a refund policy (M=4.60, SD=.494). The respondents agreed that the company's E-logistic strategy ensures the customer's products are not damaged (M=4.60, SD=.599), E-logistic strategy enables the company to offer free delivery to customers for the next purchase (M=4.58, SD=535) and that the company's E-logistic strategy offers delivery tracking for customers after they purchase (M=,4.40)

SD=.743). From the findings they come together where according to Lagat (2019), the influence of valence of logistics information integration capability has an impact on firm performance which enables manufacturing firms to benefit from reliable order cycles and reduce various inventory costs if adopted.

## 4.4.3 E-commerce payment strategy

This part of the study was determined to find out how e-payment affected the performance of the manufacturing companies in Nairobi City County. The respondents were provided with a scale of 1-5 to indicate how the e-payment aspect affected performance as shown in the table.

**Table 4.7: E-commerce payment strategy** 

Statement	Mean	Std deviation
The company's E-payment strategy maintains integrity by not	4.83	.470
sharing customer information.  The company's E-payment strategy highly regards the verification of payment methods.	4.79	.454
The company's E-payment strategy ensures the confidentiality	4.79	.454
of information.  The company's E-payment strategy is designed to enable our customers to feel safe and secure.	4.74	.560
The company's E-payment strategy has easy checkout on all	4.74	.560
devices.  The company's E-payment strategy allows for effective transactions.	4.72	.533
The company's E-payment strategy has 24/7 customer support.	4.70	.575
The company's E-payment strategy provides multiple payment methods (mobile, credit/debit card, cash on delivery, etc.)	4.68	.581
Aggregate score	4.75	.523

## Source: Survey Data (2022)

The respondents agreed that the company's E-payment strategy maintains integrity by not sharing customer information (M=4.83, SD=.470), the E-payment strategy highly regards the verification of payment methods (M=4.79, SD=.454), and that the

company's E-payment strategy is designed to enable our customers to feel safe and secure (M=4.74, SD=.560). The findings coincide with Yula, (2020) e-commerce technology enhances convenience to the customer and organization in which the respondents agreed that the company's E-payment strategy has easy checkout on all devices(M=4.74, SD=.560), company's E-payment strategy allows effective transactions (M=4.72, SD=.533), company's E-payment strategy has 24/7 customer support (M=4.72, SD=.575) and the company's E-payment strategy provides multiple payment methods (mobile, credit/debit card, cash on delivery, etc.) (M=4.68, SD=.523).

#### **4.4.4 Performance**

The study aimed to determine the performance of manufacturing companies in Nairobi City County and the finding shown in the table below.

Table 4.8:Performance of manufacturing companies in Nairobi City County

Statements	Mean	Std deviation
	4.0.7	
Enhanced customer service	4.85	.366
Improved profitability	4.77	.466
Increase Customer satisfaction,	4.74	.445
Increase in new customers and retain customers	4.74	.445
Increase Customer loyalty.	4.72	.455
Increase in sales.	4.68	.510
Reduced delay payments	4.66	.517
Reduction in operational cost	4.66	.517
Increased traffic volume for the website	4.57	.772
Increased customer engagement (shares, subscriptions,	4.53	.608
reactions)		
Aggregate score	4.69	.510

**Source: Survey Data(2022)** 

The findings indicated that the respondents agreed that the manufacturing industries have enhanced customer service (M=4.85, SD=.366), improved profitability (M=4.77, SD=.466), increased customer satisfaction (M=4.74, SD=.445), increased

new customers and retain customers ((M=4,74, SD=.445), Increase Customer loyalty (M=4.72, SD=.455), Increase in sales (M=4.68, SD=.510). Reduced delay payments (M=4.66, SD=.517), Reduction in operational cost (M=4.66, SD=.517), Increased traffic volume for the website (M=4.57, SD=.772), and increased customer engagement (shares, subscriptions, reactions) (M=4.53, SD=.608).

#### 4.5 Inferential statistics

This analysis was done to find out the correlation, fitness model, and the analysis of variance and regression coefficient.

#### 4.5.1 Correlation Analysis

To find out the relationship between the independent variable and dependent variable was undertaken.

**Table 4.9 Correlation analysis** 

		Performance	e-	e-	e-
			platform	payment	logistics
Performance	Pearson correlation	1			
	Sig. (2-tailed)				
e-platform	Pearson correlation	.443**	1		
	Sig. (2-tailed)	<.001			
e-payment	Pearson correlation	.085	$.350^{*}$	1	
	Sig. (2-tailed)	.547	.010		
e-Logistics	Pearson correlation	.369**	.662**	.442**	1
	Sig. (2-tailed)	.007	<.001	<.001	

<sup>\*\*</sup> Correlation is significant at the 0.01level (2-tailed)

Source: Survey Data (2022)

The above table shows that there is a statistically significant relationship between eplatform and the organizational performance of manufacturing industries (r=0.443, p-value <.001) unlike with e-payment and organization relationship where (r=.085, p-value .547) was nonsignificant. The e-logistic strategy and organizational performance (r=.369, p-value .007) showed a statically significant relationship.

### **4.5.2 Regression analysis**

Regression analysis was done the determination the effects of the independent variable on the dependent variables, the study incorporated an E-platform strategy, E-Logistics strategy, E-Payment strategy, and performance. Table 4.9 is a representation of the fitness model to illustrate the phenomenon.

**Table 4.10: Regression Summary** 

Variables Dep var=Performance	Standardized coefficients	P-Value
	Beta	
		0.00
E-Platform	.367	.035
E-Payment	124	.385
E-Logistics	.181	.310

a. Predictors: (Constant) E-Logistics, E-Platform, E-Payment

b. Dependent: Variable: Performance

Source: Study Data (2022)

The R-value is used to explain the changes in which the independent variable affects the dependent variable. In this study, the e-platform strategy, E-logistic strategy and E-payment strategy included in the model explain a .468(46.8%) variance in performance with a standardized error of ..35588. The remaining 53.2% accounts for the other factors not in this study

Table 4.11: Regression summary of ANOVA

Model		Sum of	df	Mean	F	Sig
-		Squares		Square		
1	Regression	1.739	3	.580	4.576	$.007^{\rm b}$
	Residual	6.206	49	.127		
	Total	7.945	52			

a. Dependent: Variable: Performance

b. Predictors: (Constant) E-Logistics, E-Payment, E-Platform

**Source: Survey Data(2022)** 

The regression summary of ANOVA above shows the significance coefficient of the F significant as .007<sup>b</sup> which is less than 0.05. this is an indication that there was a significant relationship between E-platform, E-logistics, E-payment, and Performance in manufacturing industries in Nairobi City County.

**Table 4.12 Coefficients Table** 

Model		Unstandardized Coefficients B	Std. Error	Standardized coefficients Beta	T	Sig
1	Constant	3.347	.601		5.574	<.001
	E-platform	.252	.116	.367	2.167	.035
	E-Payment	108	.123	124	877	.385
	E-Logistics	.152	.148	.181	1.026	.310

a. Dependent Variable Performance

Multiple regression was carried out to determine the relationship between e-platform strategy, e-logistics strategy, e-payment, and performance, and the results are represented in the table above.

The findings from Table 4.11 show that a unit increase in e-platform strategy increases organization performance. by .252 times. Secondly, a unit increase in e-logistics leads to an increase in organization performance by .152 times. Thirdly a unit increase in e-payments leads to a decrease in organization performance by -.108 times which is a negative significance. The p-values of the variables are p=.035 for e-platform, p=.385 for e-payment, and p=-.310 for e-logistics allowing the multi-regression equation to be

$$Y=3.347+.252X_1-.108X_2+.152X_3+\epsilon$$

Where;  $\beta X_1 = 0.252$ ,  $\beta X_2 = -0.108$ ,  $\beta X_3 = 0.152$ 

## 4.5.3 Discussion of the findings

From the equation, it's evident that when all independent variables are kept constant, organization performance will increase by 3.347. A unit increase in e-commerce

platform strategy while holding all other variables constant will increase organizational performance by 0.252 times. These findings are in agreement with (Mutava, 2019) study on e-commerce performance on sales turnover in retail center stores that showed a positive correlation between the e-commerce platform efficiency and sales turnover which is part of the performance. The finding also agrees with the (Achiando, 2018) study which found a positive correlation between e-commerce strategy by use of social media and sales performance in private security firms.

A unit increase in e-commerce logistics strategies with other variables constant will cause an increase in organizational performance by 0.152. These findings are in agreement with those of (Gitonga, 2017) where there was a positive correlation between electronic order processing as a logistic practice and operational performance in manufacturing companies. Also, the finding collates with a study by(Erceg & Sekuloska, 2019) where modern logistics had a positive significance on the performance of the companies.

Thirdly, a unit increase in e-commerce payment would cause a decrease in performance when other factors are kept constant. In this case, the findings were in agreement with a study by (Roosa, Antinoja, & Daniel, 2019) which showed that e-commerce payment providers need to understand what trust, security, ease of use, customer support, and transparency are to a consumer which according to this study lack of trust, security, multiple payment methods, and confidentiality indicate a decrease in organizational performance.

#### **CHAPTER FIVE**

## SUMMARY, CONCLUSION, AND RECOMMENDATION

#### 5.1 Introduction

This chapter comprises of summary of the study which is obtained from the research findings. The conclusion is derived from the findings of the research with the recommendation explaining further areas that can be researched.

## **5.2 Summary of findings**

The summary of the study was given by the study's goal which was to determine e-commerce strategies' effects on organization performance across the manufacturing sector within Nairobi City County Kenya. The study specifically focused on how the performance of manufacturing industries was affected by the e-commerce platform strategy, e-commerce logistic strategy, and e-commerce payment strategy. The study employed a descriptive research design with the target population of 120 respondents sampled from different departments using stratified sampling and simple random sampling to obtain 30 companies from whom four respondents were selected from each company followed by data collection employing questionnaires. Analysis of quantitative data was done by use of mean, frequencies, and standard deviation. Inferential analysis where regression and correlation were performed to show the relationship between the independent variables and dependent variables. Below is a rundown of the findings;

The data obtained from the questionnaires were used to show the effects of e-commerce strategies on organizational performance in Nairobi City County. The response rate of the study stood at 44.12% which is reasonable for analysis and interpretation considering COVID -19 pandemic restrictions on interaction which was

problematic in obtaining information. The Male and female respondents were 60.4% and 39.6 whose highest response age was 36-45 years at 43.4%.

The results from descriptive statistics illustrated that organizational performance had a mean of 4.69 and a standard deviation of .510. The E-commerce platform strategy had a mean of 4.49 and a standard deviation of .699. The e-commerce logistic strategy had a mean of 4.02 and a standard deviation of .498. The e-commerce payment strategy had a mean of 4.75 and a standard deviation of .523. From the mean scores, it is evident that most of the respondents agree that e-commerce strategies affect organizational performance in the manufacturing sector.

For the inferential analysis, a correlation test was performed where none of the r indicated more than 0.8 or 64% of the findings which means that the data had no multicollinearity issues. The R-value explained the changes in which the independent variables e-platform, e-logistic strategy, and E-payment strategy affected the dependent variable performance in which the model explained a .468(46.8%) variance in performance in the manufacturing sector with a standardized error of ..35588. The remaining 53.2% accounts for the other factors not in this study. The regression analysis of the study showed that a unit increase in e-platform strategy increases organization performance. by .252 times. Secondly, a unit increase in e-logistics leads to an increase in organization performance by .152 times. Thirdly a unit increase in e-payments leads to a decrease in organization performance by -.108 times which is a negative significance.

### 5.3 Conclusion

The main objective of the study is to seek e-commerce strategies' effect on organization performance in the manufacturing industries in Nairobi City County Kenya. The study narrowed it to three specific objectives that focused on e-commerce

platform strategy, e-commerce logistics strategy, and e-commerce payment strategy on organization performance in the manufacturing sector within Nairobi, City County.

From the finding, it can be concluded that the e-commerce-platform strategy has a significant positive effect on organizations' performance where the p-value is 0.035 and less than 0.05 which is an indication that the manufacturing industries do not highly consider the online platform to increase organizational performance where organizations utilized websites and the social media platform for performance purposes that would lead to increased customer engagement and increased traffic volume from websites.

Secondly, the e-commerce logistic strategy showed a p-value of .007 which is statistically significant indicating that logistics plays a huge role in the organization's performance where consideration of how, when, and where the customer receives their products brings about organizational performance by reducing operational cost as well as increasing customer loyalty. This strategy requires the management to utilize e-logistics measures like having a delivery policy, delivering products on time, ensuring they are not damaged as well as having different delivery options which in the end increases the performance of the organization.

Thirdly the e-commerce payment strategy with a p-value of .547 is above the not statistically significant implying that trust, confidentiality, effective 24/7 customer support, and easy transaction are of concern to foster organization performance by increasing customer satisfaction and reducing delayed payment. E-payment strategy's influence on the performance of the organization is necessary since online payment methods are increasingly growing to be used daily as well as purchase products on sites. Hence a customer's trust in the method of payment, confidentiality, and security

## **5.4 Recommendation for practice and policy**

Based on the finding of this study, managers should consider fully utilizing the e-commerce platform strategy in the manufacturing sector in Nairobi city county as it leads to performance in the organization by increasing sales turnovers, increasing visibility of the company, brand, or product through interacting on the website and the social platforms which allow customers to interactivity and connectivity that can bring new customers and retain old ones as well. Online platforms also form a way in which customers can engage to bring about complaints, and service recovery which requires organizations to have customer relationship management through online service that customers can easily access.

The study recommends outsourcing an e-commerce logistics strategy in the manufacturing sector in Nairobi City County to ensure that they deliver undamaged, on-time products to their customers which is an operational best practice that assists the business increase overall transportation management efficiency and cost-saving as well as improving customer satisfaction.

The study suggests that managers should focus on fully utilizing e-commerce payment strategies that are safe and secure as this promotes online transactions as well as makes it easy for customers to shop online.

The government should also ensure friendly environments for global markets that will facilitate the use of e-commerce and its strategies to create laws that will protect both the seller and buyer from fraud while conducting online activities.

The results contribute to the new knowledge in the empirical research on e-commerce strategies and organization performance specifically in the manufacturing sector.

Also, the methodology used in the eCommerce strategies and performance was a

thorough descriptive research design to contribute to a deep and rich research study that will give future scholars to incorporate into their research projects.

## **5.4.1** Suggestions for further studies

The study focused on 3 variables, e-commerce platform strategy, e-commerce logistic strategy, and e-commerce payment strategies in the manufacturing sector considering the technology growth rate is rapidly evolving creating room for other strategies to cope with current trends which other research studies should focus on. A review to evaluate the validity of the finding in other sectors, such as transport and infrastructure, agriculture, tourism, and public organization could be relevant. Another future study is on larger sample size and the use of other qualitative data that should be applied in similar studies. Also, the research can be conducted in other counties since this study only focused on Nairobi City County.

#### REFERENCE

- Achiando, H. A. (2018). E-Commerce Strategy Adoption and Performance of Micro and Small Enterprises: a Case of Private Security Firms in Nairobi County, Kenya
- Balamurugan, S., & Nadu, T. (2018). E-commerce customer experience and relationship. 9(7), 433–439.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. In *Journal of Management* (pp. 99–120).
- C. R. KOTH ARI. (2004). Research methodology.
- Dishaw, M. T., & Strong, D. M. (1998). TTF and TAM models. *36*, 9–21. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.5961&rep=rep1 &type=pdf
- Erceg, A., & Sekuloska, J. D. (2019). E-logistics and e-SCM: How to increase competitiveness. *Logforum*, *15*(1), 155–169. https://doi.org/10.17270/J.LOG.2019.323
- Fox, R. (2018). Information economy. *Digital Library Perspectives*, *34*(2), 78–83. https://doi.org/10.1108/DLP-10-2017-0040
- Gitonga, S. (2017). Logistics management practices and Operational performance of Fast Moving Consumer Goods Manufacturers in Nairobi. *Logistics Information Management*, 11(6), 359–369.
- Ha, A. Y., Luo, H., & Shang, W. (2022). Supplier Encroachment, Information Sharing, and Channel Structure in Online Retail Platforms. *Production and Operations Management*, *31*(3), 1235–1251. https://doi.org/10.1111/poms.13607
- Hasanat, M. W., Hoque, A., Shikha, F. A., & Anwar, M. (2020). The Impact of Coronavirus (Covid-19) on E-Business in Malaysia. April.
- IMF. (2019). World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers. In *International Monetary Fund* (Issue October). https://www.imf.org/en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019
- Kabuba. (2014). E-commerce and performance of online businesses in Kenya.
- KAM. (2018). Manufacturing in Kenya under the big four agenda. A sector deep dive report.
- Kenney, M., Rouvinen, P., Seppälä, T., & Zysman, J. (2019). Platforms and industrial change. *Industry and Innovation*, 26(8), 871–879. https://doi.org/10.1080/13662716.2019.1602514
- Kinyanjui. (2015). Response by Kenyan manufacturing firms to globalization: A survey of manufacturing firms in Nairobi and Athi-river.
- Kittony, K. (2017). Presentation on challenges of industrial development and productivity improvement in Kenya.

- Kothari, C. (2004). Research Methodology.
- Lagat, C., Chepkwony, J., Sang, J., & Kimitei, E. (2019). Influence of Logistic Service Reliability Capability on Firm Performance in Kenya. *Journal of Business Management and Economic Research*, *3*(9), 34–46. https://doi.org/10.29226/tr1001.2019.156
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance*, *35*(October 2015), 401–410. https://doi.org/10.1016/s2212-5671(16)00050-2
- Maata, S. W., & Ombui, K. (2018). Role of Third-Party Logistics Services on Supply Chain Performance in Distribution Sector in Kenya: a Case of Bollore Transport & Logistics Kenya Limited. *International Journal of Supply Chain Management*, 3(2), 22–43.
- Moronge, gichane and. (2018). Influence of Electronic Business Practices on the Performance of Supermarkets in Nairobi.
- Mutava, R. M. (2019). Effect of E-Commerce Platforms on Sales Turnover in Retail Center Stores: a Case Study of Two Rivers Mall 8(5), 55.
- Muthoni, D. M., & Kinyua, G. M. (2020). Corporate Reputation and Firm Performance: An Empirical Analysis of Motor Vehicle Assemblers in Nairobi City. 5(2), 73–81. https://doi.org/10.11648/j.jbed.20200502.13
- Nadeem, S., Alvi, A. K., & Iqbal, J. (2018). Performance Indicators of E-Logistic System with mediating role of Information.
- Ndung'u, N., & Were, S. (2016). Factors affecting effective logistics management in the manufacturing industry in Kenya: a case of Sameer Africa Limited. *The Strategic Journal of Business & Change Management*, 3(4), 810–832.
- Ngairah, 2016. (n.d.). Challenges facing the performance of e-payment systems in government ministries in Kenya; a case of the ministry of energy and (petroleum (moep)
- Noble Kennedy, E., & Kumar Kundu, G. (2018). Influence of Delivery Charges and Time on Online Purchase Decisions. *118*(18), 4393–4404. http://www.ijpam.eu
- Nyaboga, A. B., Marwa, M., & Kabata, D. (2015). Motivational Factors and Use of Mobile Payment Services in Kenya. *Business and Economic Studies*, 21(1), 40–50.
- Okello, I. (2016). The Effect of Electronic Retail Payment Services on Financial Performance of Commercial Banks in Kenya.
- Onwutalobi, A.-C. (2016). Building an effective strategic E-commerce development plan for a startup company entering the Nigerian market. 1–81. https://www.theseus.fi/bitstream/handle/10024/112134/Onwutalobi\_Anthony-Claret.pdf?sequence=1

- Reardon, T., Heiman, A., Lu, L., Nuthalapati, C. S. R., Vos, R., & Zilberman, D. (2021). "Pivoting" by food industry firms to cope with COVID-19 in developing regions: E-commerce and "copivoting" delivery intermediaries. *Agricultural Economics (United Kingdom)*, 52(3), 459–475. https://doi.org/10.1111/agec.12631
- Roosa, Antinoja, & Daniel, S. (2019). The Effects of E-payment Methods on Online Purchasing Cancellation.
- Rukia Atikiya (2015). Effect of competitive strategies on the performance of manufacturing firms in Kenya.
- Saetang, S. (2017). The E-Commerce strategies respond to the UX design. *Ubi-Media* 2017 Proceedings of the 10th International Conference on Ubi-Media Computing and Workshops with the 4th International Workshop on Advanced E-Learning and the 1st International Workshop on Multimedia and IoT: Networks, Systems, and Applications. https://doi.org/10.1109/UMEDIA.2017.8074086
- Signé, L., & Johnson, C. (2018). The potential of manufacturing and industrialization in Africa: Trends, opportunities, and strategies. *Africa Growth Initiative at Brookings*, *September*, 1–32. https://www.brookings.edu/wp-content/uploads/2018/09/Manufacturing-and-Industrialization-in-Africa-Signe-20180921.pdf
- Song, G., Song, S., & Sun, L. (2019). Supply chain integration in omnichannel retailing: a logistics perspective. *International Journal of Logistics Management*, 30(2), 527–548. https://doi.org/10.1108/IJLM-12-2017-0349
- Tang, G., Park, K., Agarwal, A., & Liu, F. (2020). Impact of Innovation Culture, Organization Size and Technological Capability on the Performance of SMEs: The Case of China.
- Ucc, N. (2018). Writing Chapter 3. Writing Chapter 3, January.
- Ul, B., F., R., Mehraj, A., Ahmad, A., & Assad, S. (2017). A Compendious Study of Online Payment Systems: Past Developments, Present Impact, and Future Considerations. *International Journal of Advanced Computer Science and Applications*, 8(5), 256–271. https://doi.org/10.14569/ijacsa.2017.080532
- UNCTAD 2018. (2018). Journal of Materials Processing Technology, 1(1), 1–38.
- United Nations. (2017). United Nations Conference on Trade and Development. *12736*(July), 1–21.
- User Experience Design (UX design) for an E-commerce website: a case of Shop The Planet. (2014). https://www.theseus.fi/bitstream/handle/10024/82918/Lossini\_Yasin\_Thesis\_Fi nal.pdf?sequence=1
- Vargas-Hernández, J. G. (2015). Strategies for the Adoption of E-commerce. *Journal of Global Economics*, 03(04). https://doi.org/10.4172/2375-4389.1000157
- Venkatesh, V., & Zhang, X. (2010). The unified theory of acceptance and use of technology: U.S. vs. China. *Journal of Global Information Technology Management*, 13(1), 5–27. https://doi.org/10.1080/1097198X.2010.10856507

- Violeta. (2015). Business performances between profitability, return n, and growth. 1–12.
- Wamiori. (2019). Determinants of financial performance of manufacturing firms in Kenya.
- Wang, L. (2015). Research on the impact of e-commerce on the logistics economy: An Empirical Analysis based on Zhengzhou Airport Logistics. *International Journal of Security and Its Applications*, 9(10), 275–286. https://doi.org/10.14257/ijsia.2015.9.10.25
- Wilson, V., & Makau, C. (2018). Online marketing use: Small and medium enterprises (SMEs) experience from Kenya. *Orsea Journal*, 7(2), 63–77.
- Yang, C. (2022). Cross-border expansion of digital platforms and transformation of the trade and distribution networks of imported fresh fruits from Southeast Asia to China. *Global Networks*, 22(4), 716–734. https://doi.org/10.1111/glob.12352
- Zhu, K. (2014). The Complementarity of Information Technology Infrastructure and E-Commerce Capability: A Resource-Based Assessment of Their Business Value The Complementarity of Information Technology Infrastructure and E-Commerce Capability: A Resource-Based Assessment. *August 2015*. https://doi.org/10.1080/07421222.2004.11045794
- Zhuang, Y., & Lederer, A. L. (2006). A resource-based view of electronic commerce. *43*, 251–261. https://doi.org/10.1016/j.im.2005.06.006

**APPENDICES** 

APPENDIX I. INTRODUCTORY LETTER

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Dear respondents,

**RE: INTRODUCTORY LETTER** 

I am a student at Kenyatta University pursuing an MBA course. As part of the course

requirements, I am required to carry out a research project based on your organization.

The research of the project is titled: -

"E-commerce strategies and corporate performance in the manufacturing sector in

Nairobi City County, Kenya.

The purpose of this letter is to kindly request your assistance and cooperation in

providing the required information in the questionnaires. You are further informed

that any information given will be treated with confidentiality and will be strictly used

for academic purposes only.

Your cooperation will be highly appreciated.

Thank you.

Mary Gitau

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## APPENDIX II. QUESTIONNAIRE

Questionnaire to be filled by respondent

Dear Sir/Madam,

This questionnaire aims to investigate the e-commerce strategies and corporate performance of manufacturing industries in Nairobi, Kenya. This questionnaire is designed in a way to collect data that will lead to the achievement of the study objectives. I will be very much grateful if you kindly participate in this study by appropriately responding to the questions in this tool as accurately and precisely as you can. Your corporation will be highly appreciated and be assured that the information that will be given will be treated with the utmost confidentiality and the results will be only used for academic purposes.

### APPENDIX III. QUESTIONNAIRE

This questionnaire is designed to obtain information from respondents in the manufacturing industries in Kenya. The information is required for academic purposes to assist the researcher in fulfilling the requirement for a degree in Masters of Business Administration at Kenyatta University. The research is on *e-commerce strategy and performance in the manufacturing organizations in Nairobi City County*. This company has been selected in a stratified random sample to participate in the research. The researcher kindly requests you to answer all questions in all the sections as truthfully as possible. The information obtained will be treated with confidentiality and will only be used for academic purposes. Your participation in filling out the questionnaire is highly appreciated as it will enable the researcher to complete their degree program. Kindly provide the required information in the spaces given, or tick  $(\sqrt{})$  where relevant.

#### SECTION A: RESPONDENT'S GENERAL INFORMATION

1. Gender: Male [] Female []

2. Age: 18-25 [] 26-35 [] 36-45 [] Above 45

[]

3. Position in the firm:
 a. Marketing Manager [] b. IT Manager [] c. Finance Manager []d.Logistics Manager []

3. For how long has your company been operating?

a. Less than 5 years b. 5-10 years c. 10-20 years d. More than 20 years

5. Tick appropriately the sector which your company can be classified.

S/No	Subsector	
1.	Building, Construction, and Mining	
2.	Chemical & Allied	
3.	Energy, Electrical & Electronic	
4.	Food and Beverages	
5.	Leather and Footwear	
6.	Metal & Allied	
7.	Motor vehicle and Accessories	
8.	Paper and Board	
9.	Pharmaceutical and Medical Equipment	
10.	Plastics and Rubber	
11.	Textile and Apparel	
12.	Timber, Wood, and Furniture	

## SECTION B: ECOMMERCE PLATFORM STRATEGY

The questions in this section are about the features of your company website and how it is designed to enhance response to the question on a scale of 1-5 where 1=Not at all, 2=Slight Extent, 3=Moderate Extent, 4=High Extent, 5=Very High Extent

S/N	STATEMENT	1	2	3	4	5
1.	The website is designed to ensure user satisfaction					
2.	The websites always ensure easy navigation					
3.	The website is designed to enable our customers to					
	interact with the company's social media platforms.					
4.	The company's social media platforms (Facebook,					
	Twitter, and Instagram) are highly interactive with					
	customers					
5.	The product displayed on the website are always					
	appealing /attractive to the user					
6.	Our online feedback platform allows dialogues with					
	the customer in case of any issue (chatbot)					
7.	The company uses social media platforms to market					
	products.					
8.	The company highly considers customer service a top					
	priority					

## SECTION: ECOMMERCE LOGISTICS STRATEGY

The questions in this section are about the features of your company's logistics strategy and how it is designed to enhance response to the question on a scale of 1-5 where 1=Not at all, 2=Slight Extent, 3=Moderate Extent, 4=High Extent, 5=Very High Extent

S/N	STATEMENT	1	2	3	4	5
1.	The company's E-Logistics strategy is guided by a clear					
	policy on delivery.					
2.	The company's E-Logistics strategy is guided by a					
	refund policy.					
3.	ensures Customers' orders are delivered on time.					
4.	The company's E -logistics strategy provides a range of					
	delivery options.					
5.	The company's E-logistic strategy ensures the					
	customer's products are not damaged.					
6.	The company's E-logistic strategy offers delivery					
	tracking for customers after they purchase a product.					
7.	The E-logistic strategy enables the company to offer					
	free delivery to customers for the next purchase.					
8.	The E-logistic strategy of the company offers a good					
	product packaging service to our customers.					

#### SECTION D: ECOMMERCE PAYMENT STRATEGY

The questions in this section are about the features of your company's E-Payment strategy and how it is designed to enhance response to the question on a scale of 1-5 where 1=Not at all, 2=Slight Extent, 3=Moderate Extent, 4=High Extent, 5=Very High Extent

S/N	STATEMENT	1	2	3	4	5
1.	The company's E-payment strategy is designed to					
	enable our customers to feel safe and secure.					
2.	The company's E-payment strategy provides multiple					
	payment methods (mobile, credit/debit card, cash on					
	delivery, etc.)					
3.	The company's E-payment strategy has 24/7 customer					
	support.					
4.	The company's E-payment strategy ensures the					
	confidentiality of information.					
5.	The company's E-payment strategy maintains integrity					
	by not sharing customer information.					
6.	The company's E-payment strategy highly regards the					
	verification of payment methods.					
7.	The company's E-payment strategy allows for effective					
	transactions.					
8.	The company's E-payment strategy has easy checkout					
	on all devices.					

## **SECTION E: PERFORMANCE**

This section focuses statement seeking to show this adoption of e-commerce has contributed to growth in various dimensions of performance of the company in the final 5 years. Use scale of 1-5% where 1=decline 2=no growth at all, 3=1-10%, 4=10-20%, 5=over 20%

S/N	STATEMENT	1	2	3	4	5
1.	Increase Customer satisfaction,					
2.	Increase Customer Loyalty.					
3.	Increase in new customers and retain customers					
4.	Enhanced customer service.					
5.	Increased traffic volume for the website					
6.	Increased customer engagement (shares,					
	subscriptions, reactions)					
7.	Improved profitability					
8.	Increase in sales.					
9.	Reduced delay payments					
10.	Reduction in operational cost					

## APPENDIX IV. RESEARCH BUDGET

NO	ITEM	AMOUNT
		(KSHS)
1	Transport	18000
2	airtime	3000
3	Internet and computer	13000
4	Printing and binding	8000
5	Stationery	2000
7	Miscellaneous	5000
	TOTAL COST	49000

## APPENDIX V. LIST OF MANUFACTURING INDUSTRIES IN NAIROBI

## **Mombasa Road Industries**

No.	Company	No.	Company				
1.	Norda Industries Ltd	2.	Laboratory & Allied Ltd				
	Factory						
3.	CNP Shoes Industries	4.	Astral Industries Ltd				
	LTD						
5.	Sanpac Africa Ltd	6.	IMCD Kenya Ltd				
7.	ACHELIS KENYA LTD	8.	Dinlas Pharmaceautical				
9.	64 Doors Factory Ltd	10.	Deshi Group of Company				
11.	Kens Metal Industries	12.	Orbit Chemical Industries				
	Limited						
13.	Auto Industries Limited	14.	Polythene Industry Limited				
15.	China Highway Group of	16.	Kings Manufacturing Ltd				
	Companies						
17.	Kapa Oil Refineries	18.	Kenbros industries Ltd				
	Limited						
19.	Complast Industries	20.	Wonderpac Inddustries Limited				
21.	Karlamoja Limited	22.	Ultra Chemical Industries				
23.	Economic Industries Ltd	24.	Farm Engineering Industries				
25.	Ingredion Kenya	26.	Adamji muti supplies Ltd				
27	Bobmill industries Ltd	28	Shelfied Steel Systems Limited				

# **Industrial Area**

No.	Company	No.	Company					
1.	Alliance Gaumet Industries	2.	Silpack Industries Ltd					
	Limited							
3.	Paras Industries Ltd	4.	Bipdeal laboratories Ltd					
5.	Patco Industries Limited	6.	Industrial BoilerProducts CoLtd					
7.	King Plastic Ltd	8.	<b>Bunny Industries Limited</b>					
9.	Osho Chemical Industries	10.	Addison Industries Limited					
			Kenya					
11.	Spares & Industries Ltd	12.	Halar Industries Limited					
13.	Techpak Industries Ltd	14.	Chemical industries Limited					
15.	Dak TechEngineering	16.	Crown paints Distribution					
	Company		Twiga					
17.	Kenpoly Manufacturing Ltd	· •						
19.	Kengpen industries	20.	Plastic Packaging Industries					
			Limited					
21.	Timcraft Enterprises	22.						

# <u>Ruaraka</u>

No.	Company	No.	Company					
1.	KENAFRIC	2.	PL Cussons East Africa Ltd					
	Manufacturing Limited							
3.	LYONS Maid	4.	Murphy Chemicals (East					
			Africa)					
5.	Napro Industries Limited	6.	Solai Paints Ruaraka Peponi					
7.	Jubilee tissue Industries	8.	Kenya Limited Breweries Ltd					
	Limited		Ruaraka					
9.	East Africa Foundry Works	10.	Premier Food Industries					
	(K)							
11.	Colour Packaging Limited	12.	Bestyres & Accessories Ltd					
13.	Nation Wide Electrical	14.	Afro Plastics (Kenya) Ltd					
	Industries							
15.	Pepsi Cola (EA)Ltd	16.	Dawa Limited					
17.	Chandarana Industries	18	Propak Kenya Ltd					

## APPENDIX VI. WORK PLAN AND TIME FRAME

							Feb-		Oct-	June-
	August	Sept	Oct	Nov	Dec	Jan	Aug	Sept	April	Aug
1. Topic Identification										
2. Approval of Topic										
3. Proposal Presentation										
4. Pretesting of Questionnaire										
5. Defense										
6. Correction										
6. Proposal Submission										
7. Data Collection &										
Processing										
8. Submission of Project										
Report to Graduate School										