DISTRIBUTION MANAGEMENT PRACTICES AND PERFORMANCE OF OUTBOUND LOGISTICS OF ONLINE STORES IN KENYA

BY

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DECLARATION

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I affirm that this project is my creation and has never been offered to any other school of learning for an award of a degree.



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This project is being submitted for examination with my endorsement as the University Supervisor.

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DEDICATION

The project is devoted to God Almighty for inspiring and granting me the knowledge to partake this course. God granted me strength through-out the programme and on His wings only have I mounted.

The project is devoted to my late Parents, gone forever away from our loving eyes and who left a void never to be filled in our lives. Though you are no more, I will make sure your memory lives on as long as I shall live. Your unconditional love and good examples taught me to work hard for the things that I aspire to achieve.

I also dedicate this work to my Love; Patrick who has encouraged me all the way and whose encouragement has made sure that I give it all it takes to finish that which I have started. To my children Ryan, Kirsty, Joe and Gianna who have been affected in every way possible by this quest, Thank you. My love for you all can never be quantified. God bless you.

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ABBREVIATIONS AND ACCRONYMS

- **DMP** Distribution Management Practices
- **GDP** Gross Domestic Product
- **KNBS** Kenya National Bureau of Statistics
- MFT Material Flow Theory
- **RBV** Resource Based View
- SC Supply Chain

ABSTRACT

The world has over the previous years become competitive and a big percentage of entities have fashioned ways of coping with the changes that comes with it. With snowballing competition, industrialization, growth and realization of innovative and the continuous expanding network, Distribution Management keeps growing and becoming a tactical resource for entities that need to acquire so as to enhance the performance of their outbound logistics. The study sought to investigate the influence of Distribution Management Practices on Performance of Outbound Logistics by online stores in Kenya The objectives were to find out the adoption extents of Distribution Management Practices by online stores, to ascertain the relationship between DMP and Performance of Outbound Logistics by online stores and to examine the milestones experienced in implementing Distribution Management Practices by online stores in Kenya. Descriptive design was the research design adopted and the population was made up of all the 47 licensed online stores in Kenya. Primary data was acquired via questionnaires (administered via electronic mails). Descriptive statistics was used to analyse objective one which has to determine the adoption level of Distribution Management Practices and objective three which sought to examine the challenges of implementing Distribution management practices. Regression analysis was used to analyse objective two which sought to analyze the correlation between Distribution management practices and outbound logistics performance of online stores. On the 1st objective which was to find out the extent of adoption of Distribution management practices by online stores in Kenya, it was affirmed that Collaboration, Omni Channel Distribution and Fleet Management were adopted to a large extent. Information Sharing, Backhaul Management and labeling and packaging on the other hand were adopted to a moderate extent by the online stores in Kenya. Objective two determined that Collaboration, Fleet Management, Information Sharing, Backhaul Management and labeling and packaging all had a positive relationship with performance of outbound logistics of online stores in Kenya. Omni Channel Distribution on the other hand had no relationship with performance of outbound logistics in Kenya. Specifically, Distribution management practices were established to influence Cost, Returnability, Order Visibility and Timeliness of online stores in Kenya. High investment related costs at the initial stages, Lack of coordination between clients and the firm, poor logistics infrastructure, Unreliability in delivery schedules and last mile deliveries were among the challenges faced in implementation of Distribution management practices. It is recommended that Information Sharing, Backhaul Management and labeling and packaging be largely adopted as they were found to have been adopted moderately by the online stores in Kenya. The research was limited since it solely relied on primary data of the online stores in Kenya. Future studies should focus on Distribution management practices and performance of either public entities, manufacturing firms or multinational corporations

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The world has for the past few decades become competitive and a big number of entities have fashioned ways of coping with the changes that comes with it. With snowballing competition, industrialization, growth and realization of innovative and the continuous expanding network, Distribution Management keeps growing and becoming a tactical resource for entities that need to acquire so as to enhance the performance of their outbound logistics (Yontar, 2022). The entities need to seamlessly and effectively distribute their products in a timely manner and in the right conditions as required by their clients and thus the need for Distribution Management Practices (DMP) as pointed out by Rizki and Augustine (2022). Based on James and Inyang (2022) Distribution Management is vital in enhancing delivery, minimize cycle time as well as reduce outbound logistics costs.

Kenya has for a decade occasioned entities operating Online, which entails physical stowage, logistical provision and merchandizing activities. Organizations are venturing into the emergent online system with which the supply of products are made based on the payment of such orders or based on the agreed upon terms between the vendor and their clients (SadighZadeh & Kaedi 2022). There is need to adopt and embrace technology in order to ensure that the online stores operate in an effective and efficient manner in delivery of their products as and when needed. Kim, Jin and Shin (2022) add that the natures of online stores are virtual and they involve engaging third party logistics corporations and persons that guides the operationalization of the requested products to the clients from the focal point. There has been an increment in usage of Internet (Hübner, Hense & Dethlefs, 2022), which has occasioned continued embracement of the online stores in Kenya.

Theories that were covered in the paper in support of the implementation of Distribution Management Practices in organizations include Material Flow Theory (MFT) and Resource Based View. The MFT was advanced by Xu (2002) while defining it as "the flow of macroscopic and microscopic elements". Material Flow entails assessing the movement of commodities within a system that has a definite time and space. As per the Resource Based View

(RBV), organizational competences may be a cause of improved performance and enhanced competitiveness when those capabilities create unique value for customers in order to outperform competitors (Ludwig & Pemberton, 2011). The Resource-Based perspective holds that a properly managed distribution network is a resource in and of itself that can provide organizations with a competitive advantage (Sarkis, Zhu & Lai, 2011).

1.1.1 Distribution Management Practices

Distribution is a core influencer of the general productivity of an entity since it influences the cost of SC and the client's experience as noted by Afum, Agyabeng-Mensah, Baah, Asamoah and Kusi (2022). Proper distribution may be embraced to attain a diversity of SC objectives extending from cost lowering to enhanced visibility. Distribution entails different tasks like offering better services to clients, transportation, proper storage, controlling inventory, fleet-trucking, properly packaging, receipt and handling of materials, store location and information incorporation as observed by Wahab, Bahar and Radzi (2021). Entities should decide on sufficient ways to store, handle and transfer their items and services to avail them to clients in the right assortments, time and location.

Agyabeng-Mensah and Tang (2021) note that Distribution entails getting the entity's products to the exact people at the precise time while considering the effectiveness and the costs involved. Distribution entails the stages involved in the movement and storage of a product from the vendor to a client in the chain as posited by Saini, Iqbal, Ahmed & Kaur (2022). Distribution Management encompasses managing of packaging, stowage and products handling at the docks, stores and retailing outlets (Baah, Amponsah, Issau, Ofori, Acquah & Agyeman, 2021). A core component of Distribution Management is the management of transportation, which consists of identifying and managing internal fleets or external carriers.

Werner-Lewandowska, & Golinska-Dawson (2021) points out that Distribution Management is associated with; replenishing stock, managing fleet and managing facilities for the distribution center. Distribution is comprised of every processes taking place among the vendors, manufacturers to clients. The core purpose of distribution are backhaul management, actual transportation, tagging products, inventorying and stowage. Some of the widely adopted DMP entails Fleet management, labeling and packaging (Werner-Lewandowska, & Golinska-Dawson, 2021) collaboration, Omni-Channel Distribution (Saini et al., 2022; Afum et al., 2022; Yontar,

2022), Information Sharing and Backhaul Management (Rizki & Augustine, 2022; James & Inyang, 2022). The study thus adopted these practices.

1.1.2 Performance of Outbound Logistics

Logistics functions extend beyond the physical movement of goods to include supplier and customer relationship management. However, Logistics Management is a method of meeting customer needs by integrating and coordinating supply chain activities (Demirkiran & Ozturkoglu, 2022). Logistics has become the backbone of everyday business and is proving to be a key differentiator in most markets in order to meet customer needs (Stekelorum, Laguir, Gupta, & Kumar, 2021). Outbound Logistics is the shipping of finished products to customers from a distribution center as defined by De Souza, Kerber, Bouzon and Rodriguez (2022). Logistics Performance entails meeting customer needs, lowering transit time, minimizing or cutting costs, differentiating products or services and managing customer or supplier relationships. According to Cherchata, Popovychenko, Andrusiv, Gryn, Shevchenko and Shkuropatskyi, 2022), analysis of Outbound Logistics Performance is a current trend that involves planning and monitoring in order to identify links between the outcomes of the pointers and the organization. It also determines how well corporations achieve their tactical aims in order to gain a competitive edge.

Ghaouta and Chafik (2022) demonstrated that Outbound Logistics Performance has multiple dimensions and is dependent on the resources used in logistics in accordance with the aims and results in comparison to other players. According to the authors, Outbound Logistics Performance analysis should be based on evaluating a set of aspects of logistics tasks such as distinction, effectiveness and efficiency of outbound operations. According to Moonsri, Sethanan and Worasan (2022), the dimension of efficiency relates to how well a resource allocated to the logistic function is used and the dimension of differentiation is the value created by customer service elements in comparison to competitors. Wang, Wood & Wang (2022) points out that Performance of Outbound Logistics can be measured by timeliness, quality of services delivered, order visibility (client's ability to keep track of their order from ordering to being delivered) and logistical delivery cost and Returnability (easiness that a client may return disappointing product and the aptitude of the network to handle the said items). The study measured the Performance of Outbound Logistics through Cost, Returnability, Order Visibility and Timeliness (Wang et al., 2022; Hamid, Eshag, Alemu & Yuruyen, 2022; Moonsri, Sethanan & Worasan, 2022).

1.1.3 Online Stores in Kenya

Online shopping has been gaining massive traction in Kenya due to the technological infrastructure laid down and embracement of technology and use of Internet (Wanjiku, 2017). There is an increase in the number of consumers that favor purchasing goods or services from the luxury of their homes as well the growing number of virtual websites that satisfies the boost in demands. A study carried out by consumer insight (2021) established that there are 47 registered online shopping stores that operate as either general shops or specific product shops. General shops entail Jumia Kenya, KiliMall, PigiaMe, Cheki; Electronics shops are Shopsasa, Phone Place kenya, Rondamo; Fashion shops entail Binti, Vivo Woman, Fashion 254 and Just Brands Kenya; Grocery shops include City Park Market, Kalimoni Greens, Fresh HaraQisha while pharmacies are like MyDawa, ePharmacy, Pharmashop and PharmacyDirect (Appendix III)

The Online Stores adds to the economy (GDP), employs numerous individuals and act as a convenience to diverse purchasers as they house basically the entire basic household items beneath a single roof (Keruga, 2017). The Online Store delivery is minimizes cost while granting client friendly prices which boosts sales as well as per capita income of customers. Convenience is also offered by the online stores as one can order for what they need at the comfort of their homes and get the product or service delivered when and where needed.

In as much as there has been a steady growth in the sector, the Online Store sector has been faced with some challenges going by a study conducted KNBS Survey (2022). The report indicate that embracing devolution guidelines has increased taxes and the decision to upwardly adjust excise taxes on foodstuff as well as depreciating currency are some of the barriers. The Online Stores are also faced with the challenges of delayed orders, reverse logistics, last mile delivery as well as mix ups in delivery of products and empty back haul (Dantas, Carvalho, Pena, Breda, Driusso, Ferreira & Bø, 2022). This challenges hampers the performance of outbound deliveries and thus the need for an adoption of an efficient Distribution Management

1.2 Research Problem

In today's vastly stiff setting, numerous online stores are striving to obtain a share of the international market and to capitalize on higher production and sourcing efficiency (Afum et al., 2022). A core determinant of outbound logistics performance is the duty of distribution

management functions in ascertaining the efficient products, raw materials and information flow across the entity's chain (Werner-Lewandowska, & Golinska-Dawson, 2021). The online stores are also faced with the challenges of delayed orders, reverse logistics, last mile delivery as well as mix ups in delivery of products and empty back haul (Dantas, Carvalho, Pena, Breda, Driusso, Ferreira & Bø, 2022). These challenges hampers the performance of outbound deliveries and thus the need for an adoption of an efficient Distribution Management.

Distribution Management Systems are useful in improving Performance of Outbound Logistics through timely delivering quality services and goods and at an affordable cost (Saini et al., 2022). An improved delivery process can enhance logistical performance of an entity (Yontar (2022). A well-managed distribution system can make business satisfy their customers and as well lead to improved performance. Among the undesirable influences of poor distribution entails inflated cost of producing, over-stretched delivery times, inflated transportation costs, greater failure and harm rates and poor client's service (Yontar, 2022; Rizki & Augustine, 2022; James & Inyang, 2022). In business operations, the flow of finished products is an important process that impacts the Performance of Outbound Logistics. Distribution Management Practices will help in handling these problems and help enhance the Performance of Outbound Logistics of Online Stores.

Several academic work have been executed trying to associate Performance with Distribution Management Practices and conclusions have varied: consisting of positive and negative. An affirmative correlation was attained by Baah, Amponsah, Issau, Ofori, Acquah & Agyeman, (2021), James & Inyang (2022) and Chugi, (2021). Other outcomes established non-significant correlations Ondoro (2018) and Ngugi & Kihara (2019) while some experienced mixed outcomes (positive & negative) for instance Kiplagat (2019) ascertained that ICT integration and demand forecasting influenced performance while multi-echelon distribution systems had no influence on performance. These unpredictable outcomes necessitates further investigation to resolve.

Numerous reviewed research have majored on diversified scope, not online stores, like manufacturing Sectors (Gitonga, 2017; K'Obado, 2019; Cherchata, Popovychenko, Andrusiv, Gryn, Shevchenko & Shkuropatskyi, 2022). Some were done in the logistics sector (Werner-Lewandowska & Golinska-Dawson, 2021) Paultry Industry (Moonsri, Sethanan & Worasan,

2022). These holes have motivated the need for research to align conceivable correlation between adopting Distribution Management Practices by Online Stores in Kenya and their Performance.

Methodological voids were also realized in some of the outcomes involving performance and Distribution Management Practices as some employed simple analytical techniques like descriptive statistics. (Kiplagan, 2019; Kerubo, 2019, Chugi, 2021), both primary and secondary data (Kiilu & Gacuiri, 2018) and cross-sectional (James & Inyang, 2022). Some authors adopted secondary data which may not be applicable to the research (Werner-Lewandowska & Golinska-Dawson, 2021). Secondary data is faced with a challenge of time as some of the literature and information used may not be up to date and time barred. This research used primary data and was analyzed using linear regressions.

Whilst much research on Kenya have been carried out, no known work has been located associating Performance of Outbound Logistics to Distribution Management Practices by Online Stores in Kenya. This study endeavors to address this gaps and add insight to the mounting DMP and Performance by addressing these gaps and providing solutions to the subsequent questions: What is the level of implementation of Distribution Management Practices by Online Stores? What is the impact of Distribution Management Practices on Performance of Outbound Logistics of Online Stores? What are the barriers of implementing Distribution Management Practices by Online Stores by Online Stores in Kenya?

1.3 General Objectives

The general objective of the research was to determine the influence of Distribution Management Practices on Outbound Logistics Performance of Online Stores in Kenya

1.3.1 Specific Objectives

The study was steered by the subsequent specific objectives

- i. To find out the level of adoption of Distribution Management Practices by Online Stores in Kenya
- To ascertain the impact of Distribution Management Practices on Performance of Outbound Logistics of Online Stores in Kenya

 To determine the barriers faced in implementing Distribution Management Practices by Online Stores in Kenya.

1.4 Value of the Study

Online stores which contributes to the economy and community at large will benefit from the outcome of the work as it will aid in understanding the Distribution Management Practices that they need to embrace so as to enhance their Outbound Logistics Performance.

The governing bodies and the state may be interested in the research to draft policies and rules that govern the sector in ensuring that the industry continues to thrive and contributing to the GDP. The policy makers will also be guided by the study by coming up with better policies that guides Distribution Management in diverse sector and ensure that the Distribution Management best Practices is used for the best purpose.

The scholars and those in the research fields can take advantage of the outcome of this work to be able to draw inference as well as conclusion on DMP and Performance of Outbound Logistics. Researches are also considered to be of importance to the study as future researchers as well as academic entities especially the institutions of higher learning, which may use the research findings as a reference point in their research. Some may also use the gaps to further their research in this field.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The segment gave a theoretical as well as the empirical literature of the paper. The section begins with the theories followed by a broader view of the Distribution Management Practices. This was subsequently followed by the related studies and gaps then the challenges of implementing Distribution Management Practices. A summary of the studies follows thereafter and the segment winds up illustrating a conceptual model.

2.2 Theoretical Literature Review

There are several theories relating to implementation of Distribution Management Practices but the paper was pegged on two theories; Material Flow Theory (MFT) and Resource Based View (RBV) Theory. The main theory anchoring the study was Material Flow Theory. This is because distribution of products along the supply chain both inbound and outbound needs the movement and flow of materials, be it raw materials and finished product. Since the study is about Distribution Management Practices, the theory of Material Flow is the most relevant and directly relates with the movement and distribution of goods from one point to the other.

2.2.1 Material Flow Theory

The Material Flow Theory is mainly attributed to Xu (2002) while defining it as "the flow of macroscopic and microscopic components". Material Flow entails assessing the movement of commodities within a system that has a definite time and space. MFT is a broad theory with diverse dimensions i.e. natural, economic and social dimensions. Of the mentioned dimensions, economic one is the most significant with other ones being the basics. The core elements making up the Material Flow Theory are materials, the flow, the owner, the regions and time. Among the mentioned elements, the flow of material is seen as the most critical one although there is no flow of material if the other elements are missing.

The theory is pertinent to the paper as the flow of material (service/product) is the core principle of Distribution Management. The Distribution Management entails the process of moving the materials from the vendors to the focal entity and from the focal company to the ultimate clients. The different dimensions of MFT like natural, economic and social are also directly involved with the study with the key dimension being the economic dimension. The economic aspect relates with the minimization of outbound logistics costs by embracing best DMP with the natural aspect focusing on provision of products and packaging that has minimal effect to the environment.

2.2.2 Resource Based View

Resource Based Theory is of the view that organizations that possess strategic resources have a substantial competitive advantage over those that do not. A tactical resource is one that posses value, tough to emulate, difficult to obtain and may not be straightforwardly substituted (Saini et al., 2022)). A resource having value is one that can impact the organization to develop strategies that capitalize on opportunities in order to gain competitiveness. RBV emphasizes the advantages An institution gains from having the resources it needs to survive. Financial might, strategic locations, experienced and dedicated labor force, technology innovations are some of the resources that a firm can capitalize on. The resources can distinguish a firm from its competitors as well as give it a competitive edge. Possessing distinctive goods, capabilities and services as well as specialized comprehensive work practices, enhances competition (Prahalad & Hamel, 1999). Lambert and Cooper (2000) opine that a Distribution Management that is efficiently managed is critical in enhancing a competitive edge.

The theory is applicable because it emphasizes the relevance of the entity having unique and strategic resources. Online stores in Kenya can turn their Distribution Management Practices into a strategic asset by implementing strategies such as Omni-channel distribution, shorter lead times, and faster delivery via a well-managed fleet system. This will offer them an advantage over their competitors. The firm may consider process automation, integration of customers, and strategic cooperation among all parties to be resources and be able to enhance the performance of outbound logistics.

2.3 Distribution Management Practices

Distribution Management Practices are activities that ensure a smooth and efficient flow of commodities from one point to the other. The practices that were featured in the study, based on the widely adopted practices by literature entails; Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution.

These are used by organizations to improve their outbound logistics performance and were addressed in the paper.

Saini et al (2022) states that Fleet Management aids in the delivery of time utility to products and ensures that the commodities are available to clients at the appropriate time & location so that they can be consumed. Yontar (2022) note that items may be shipped to the right place and time using a well-managed Fleet Management System to meet customer demands. Another area of Fleet Management that is critical in improving logistics performance is route planning and scheduling (Rizki & Augustine, 2022). Firms can use route planning to determine the most efficient routes for moving products from one supply chain node to another. Fleet Management innovations is crucial in achieving Distribution Management by improving the efficiency of fuel engines, implementing intelligent Fleet Management Systems such as using robots within the warehouse and having automatic guided vehicles, and ensuring that vehicle load is fully utilized (James & Inyang, 2022).

Packaging is a component of distribution and it affects a product's transportation centered on its traits like covering components and dimension. Proper Packaging consists of using eco-friendly packaging components and reduced packaging (Wahab, et al., 2021). Agyabeng-Mensah & Tang (2021) opine that collaboration is paramount along the chain in order to achieve standardized packaging, inspire the suppliers to embrace packaging techniques that promiotes re using and returning of packaged materials. Rearrangements of patterns of loading and improved packaging helps in better utilization of trucks and warehouses as well as reduction of materials that's needed for packaging (Baah, et al., 2021). Packaging also entails proper labeling of products (Werner-Lewandowska, & Golinska-Dawson, 2021). Labeling of a commodity plays a critical part in ascertaining that there is accurate communication on how the commodity ought to be used by its designed users (Singh & Deshmukh, 2022). Ecological labels enlightens clients about a commodity's socio-environmental impacts, how they were produced, its packaging and whether it can be recycled, have info on the commodity and proper way of putting it to use (Sharfan Ahamed, Nusrathali, Mufeeth, Ranaweera, & Abdul Majeed, 2021). Having better packaging design boosts its logistic performance and appropriates vehicle load as observed by Galvez (2019).

Relationships are strengthened through Collaboration. In supply chains and alliance networks, the firm, its clients, and suppliers can collaborate to add value and mutual benefit. Although

Collaboration has several advantages such as more visibility, flexibility, and shorter lead times, it may not always be achievable (Baah, Acquah & Ofori, 2021). To achieve performance of outbound logistics, the firm must collect relevant information from clients and collaborate with them. Real-time visibility strengthens the basis for decision-making at a strategic and tactical level, which enhances rapid response to network interruptions (Duong & Chong. 2020). Collaborative Planning, Forecasting, and Replenishment (CPFR) systems are exploited in the retail sector to improve coordination among retailers' supply partners up and down the value chain, so that vendors are more informed of consumer demand and they will be better placed to manage replenishment as well as control inventory with their associated costs (Dubey et al., 2021).

Backhaul is defined by Wang, Wang, Wang, Yan, Wang and Fu (2021) as the practice of having the delivery truck take something back to its destination after making a delivery rather than going back empty. Backhaul management makes economic sense because the truck consumes nearly the same amount of gasoline and takes nearly the same amount of time to return to the focal organization (Wahab, et al., 2021). Backhaul management assists an entity in optimizing truck loading by avoiding empty trips back to the destination, hence making the distribution network economically feasible (Baah et al, 2021). Empty Backhaul is a significant issue that impacts and impedes the distribution and it occurs when a truck delivers a product to its destination and then returns to the enterprise empty (Yontar, 2022). This makes improving logistics performance challenging because it raises the cost of doing business. Companies have been forced to develop alliances and agreements with other distributors and entities in order to manage and reduce empty Backhaul difficulties and influence their Outbound Logistics Performance as observed by Galvez (2019). Poor planning and lack of coordination with the eventual recipients, primarily retailers or customers, result in empty Backhaul (Derose, Battaglia, Eastburn, Roche, Becchetti, George & Tate, 2020). According to the experts, the remedy for empty Backhaul is collaboration and information sharing, combined with adequate planning.

Information Sharing plays a very vital role in distribution of products in and out of the company (Saini et al., 2022). The vendor can only supply the product that has been requested of him. Limiting the number of orders and deliveries is one way to cut costs. Improved information management in the distribution system aids in the reduction of such costs (Yontar, 2022). The distribution process necessitates the smooth flow of information from supplier to the main entity

and from the consumers back to the company. A corporate portal that suppliers and customers can access is essential for any organization. Suppliers and customers can easily gain access to databases, relevant workflows, and application systems via this portal (Rizki & Augustine, 2022). Depending on the industry, these portals should be tailored to specific distribution channels. Thus, information technology emerges as one of the fundamental components of effective information management in distribution systems.

An Omni-Channel Distribution Network is whereby the firm is able to provide services and products to their clients wherever the clients want them to as noted by Agyabeng-Mensah & Tang (2021). The clients are able to receive the product at their convenience whilst affording the firm a chance to manage their logistics efficiently. The firm provides an array of options in that the client can order a product virtually or electronically and decide where they want the product to be delivered whether at selected stores or at the convenience of their homes (Baah, et al., 2021). Empowered and well-informed Omni-Channel consumers interchange channels and anticipate a smooth service and better customer experience that entails both in-store and online shopping as observed by Rizki and Augustine (2022). Meeting client's expectations in an Omni-Channel Distribution is a challenging task and firms that successfully achieves this stand a high chance of enhancing their revenue through retaining key client base as pointed out by Galvez (2019).

2.4 Performance of Outbound Logistics

Wang, Wood & Wang (2022) points out that Performance of Outbound Logistics can be measured by timeliness, quality of services delivered, order visibility, logistical cost and Returnability. The study measured the Performance of Outbound Logistics through Cost, Returnability, Order Visibility and Timeliness (Wang et al., 2022; Hamid, Eshag, Alemu & Yuruyen, 2022; Moonsri, Sethanan & Worasan, 2022).

The cost of outbound logistics are costs associated with Inventories, Transportation, Facilities and handling, Information as well as the labor cost as pointed out by Wang et al. (2022). Hamid et al. (2022) asserts that properly managing distribution of an entity has the ability to ensure that the cost transportation, labor and inventory costs are minimized. Demirkiran & Ozturkoglu (2022) opine that returnability entails the easiness that a client may return disappointing product and the aptitude of the network to handle the said items as y. The firm has in place different

channels that the clients may be able to use to return the products that were wrongly delivered or did not meet the specifications. Faulty product may also be returned to the focal firm by ease as observed by Ghaouta and Chafik (2022).

Order visibility factors in the client's ability to keep track of their order from ordering to the time that they are delivered (Wang et al., 2022). The firm has the ability to easily track orders from placement to delivery as well as tracking returned products from the client back to the entity. Moonsri et al. (2022) adds that timeliness is key in measuring the performance of outbound logistics and thus firms ought to ensure that there is timely delivery of products as well as ensuring that the clients enjoy shortened lead times.

2.5 Empirical Literature Review

A number of researchers have piloted studies on Distribution Management and Performance. Galvez (2019) conducted his study on Warehouse and Distribution Management of National Food Authority in Philippines. The research used a mixture of interviews and questionnaires data with the objective of establishing the link between Performance and Distribution Management. Simple random sampling was embraced to arrive at 53 participants. It was noted that Distribution Management enhances truck turn-around time; order fill rates and delivery lead-time. The study was limited to only National Food Authority in Philippines and no other sectors. The focus was on National Food Authority and not Online Stores in Kenya.

Kerubo (2019) focused on Sustainable Distribution Practices and Responsiveness of Agrochemical Manufacturers. The study went out to ascertain the influence of responsiveness not performance of outbound logistics. All the 55 Agro-chemical Manufacturing Firms in Nairobi were studied and Descriptive design was adopted. The study amassed primary data which was regressed. The outcome indicated that labeling and packaging, sustainable transportation and backhaul management positively impacted reliability, flexibility and timeliness of Agro-chemical Firms. The limitation of the work was it focused was on Agro-chemical Manufacturing entities in Nairobi and not the entire country.

Baah et al (2021) conducted a study on Sustainable Logistics and Financial Performance with an objective of ascertaining the correlation amongst sustainable logistics and economic

performance. The study adopted primary data and the researchers distributed 130 questionnaires to the managers of Ghanaian small and medium sized logistics firms. The study adopted partial least square structural equation modeling to analyze the data. It was established that sustainable transportation, sustainable packaging, information sharing and distribution, influenced financial performance. The research was limited to local logistics firms leaving out the multinational logistics entities and thus the outcome of the study could not be generalized on all logistics entities operating in Ghana,

Werner-Lewandowska and Golinska-Dawson (2021) focused their study on sustainable logisticstheoretical assessment and empirical results in Poland's SMEs. The objective was to determine the most adopted logistics practices using a systematic literature review. The sample size was drawn from a database of 190 Polish firms from the logistics sector. Bayesian regression was used to analyze the secondary data. It was established that collaboration, eco packaging and backhaul management influences logistics cost and return ability. The key limitation was that the pertinent logistics solutions and the magnitude of their influence might be biased by the experts' selection.

Odero (2021) conducted his research on Green SCM and Sustainable Performance of Kenyan County Governments. The aim was to establish if sustainable performance is influenced by Green SCM practices. Descriptive design was adopted and the research collected primary information through questionnaires that were analyzed via regression analysis. All the 47 Kenya county governments formed the scope of the study. The outcome indicates that green packaging and green distribution influenced sustainable performance of the county governments in Kenya. The shortcoming of the study is that it did not emphasize on influencers of sustainable performance. The focus was on GSCMP at the County level and not DMP of online stores in Kenya.

Chugi (2022) carried out a research on Distribution Network Economy and Logistics Performance of Milk Processors in Kenya using a descriptive design. The purpose was to establish how Distribution Network Economy Influences Logistics Performance. The study adopted primary data and census was carried out in all the 42 Licensed Kenya Milk Processing entities. Regressions and Descriptive statistics were the information analysis methods. The outcome noted that collaboration, transport management, backhaul management and Omnichannel distribution management positively impacted logistics cost and timeliness of fresh milk processors in Kenya. The study narrowed only on the milk processors in Kenya. The study was carried out on Milk Processors and not Kenya Online Stores.

2.6 Challenges in Distribution Management Practices Implementation

Numerous challenges have been identified by diverse authors in different studies and the barriers identified are among the most popular ones in many articles and studies. Increasing distribution costs is a major logistical challenge as Singh & Deshmukh. (2022) found that cost has been the most important factor in the evaluation of performance associated with outbound logistics. Kebede (2021) points out that Logistics infrastructure constraints have an impact on logistics performance as it is obligated to transport goods and services to various destinations around the world. Poor coordination of good transport, inferior development levels of transport infrastructure, and insufficient fleets of trucks, deteriorating of products via mishandling, have all been established to among the key challenges in Distribution Management Implementation (Singh & Deshmukh. (2022; Sharfan et al., 2021 & Derose et al., 2020)

As Werner-Lewandowska and Golinska-Dawson (2021) observed, information integration allows for a comprehensive examination of the organization's operations rather than a fragmented, functionally isolated examination Information must be integrated between the entity and its vendors, third party providers, clients, forwarders and storage location. James & Inyang (2022) note that investing in IT is a necessity and not an alternative in distribution management in ensuring that the fleets are tracked and known where they are at any given time.

Variability and fluctuation of demand over daily, weekly, monthly, and seasonal cycles is among the key reasons for underutilizing vehicle capacity (Sharfan et al., 2021). Trucks with enough space and weight to ferry peak loads unsurprisingly most often carries exceeding their capacity. Unreliability of delivery schedules (Derose et al., 2020); when schedules cannot be depended on, transportation administrators are hesitant to organize backhauls or complex assembly and delivery routes that can achieve greater levels of consolidating loads. Entities understandably give priority to outbound distribution to clients because they are concerned that a truck involved in backhauling will not be able to reposition on time to execute upcoming delivery schedules as concluded by Kabede (2019).

2.7 Summary of Empirical Literature Review

The tabulation below summarizes some of the studies on the field of DMP. The table contains the Author, the studied topic, objectives, methodology used, key findings, the gap and how the gaps were addressed.

Author(s)	Study Topic	Objectives	Methodology	Major Outcomes	Knowledge Gaps	Focus of present study
Galvez	Warehouse &	Determining the	Qualitative	Distribution	Used	Used
(2019)	DMP of NFA	performance	and	management	Qualitative and	quantitative
		impact of	quantitative	enhances	quantitative	•
		distribution	•	timeliness and	designs	
		management in		order fill rates	-	
		NFA				
Kerubo	Sustainable	Establishing the	Descriptive	Sustainable	Focus on	Focus on
(2019)	distribution and	influence of	design	distribution	sustainable	DMP and
	responsiveness	sustainable		influences	distribution and	performance
	of	distribution on		reliability and	responsiveness	of logistics
	Agrochemicals	responsiveness		timeliness		
Kiplagat	Distribution	Ascertain the	Descriptive	ICT integration and	Focus was on	Focus on
(2019)	systems and	influence of	survey	demand forecasting	manufacturing	online stores
	performance in	Distribution		influenced	firms and	and outbound
	manufacturing	systems on		performance	operations	logistics
		performance			performance	performance
Baah et al	Sustainable	Determining the	Structural	Fleet management	Focus was on	link DMP to
(2021)	logistics &	impact of	equation	and packaging	financial	outbound
	financial	Sustainable	modeling	influences	performance	logistics
	performance	logistics &		performance		performance
		financial				
		performance				
Werner and	Theoretical	Establishing the	Literature	Collaboration and	Use of	Use of
Golinska	assessment on	widely adopted	Review	backhaul	secondary data	primary data
(2021)	sustainable	logistics practices		management were		
	logistics			widely adopted		
Chugi	Distribution	Determine the	Descriptive	Collaboration and	Focus on milk	Cover online
(2021)	network &	impact of		backhaul	processors in	stores
	logistics	Distribution		management	Kenya	
	performance	network &		influenced		
		performance		performance		
Odero	GSCM and	Determine the	Qualitative	Packaging and	Focus on	Focus on
(2021)	sustainable	influence of		green distribution	county	online stores
	performance of	GSCM on		influences	governments	
•	Counties	performance	~	performance		
James and	Logistics	Influence of	Cross-	Order process &	Focused on	Focus on
Inyang	management and	logistics	sectional	Fleet management	manufacturing	online stores
(2022)	performance of	management on		impact	firms	
	manufacture	performance		performance		

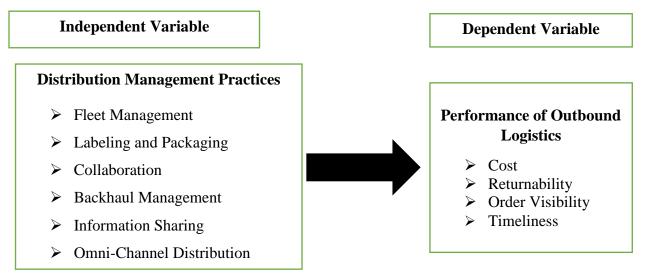
 Table 2. 1 Summary of Empirical Literature

Source: Researcher (2023)

2.8 Conceptual Framework

The Independent Variable of this study is Distribution Management Practices whose dimensions are Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution while the Dependent Variable is Performance of Outbound Logistics operationalized by Cost, Returnability, Order Visibility and Timeliness and is as illustrated.

Figure 2.1 Conceptual Framework



Source: Researcher (2023)

The conceptual model above demonstrates the association amongst the variables. The conceptual framework indicates that there exists a correlation amongst DMP (Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution) and Performance of Outbound Logistics (Cost, Returnability, Order Visibility and Timeliness) and thus the implementation of distribution management practices has the ability to influences performance of outbound logistics of online stores in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This part provides the methodology that the paper adopted. The chapter highlights the study research design, populace, method for data gathering and the proposed data analysis methods used.

3.2 Research Design

Descriptive design was the methodology used by the paper and it entails gathering information about a phenomenon's current state to aid in describing, "what exists" relative to concepts in a phenomena (Greener, 2008).. This approach was appropriate since it allowed for a feasible assessment of the findings. Furthermore, it provided the comprehensive and inclusive investigation essential in research studies. Furthermore, a descriptive design was used, as it was capable of collecting precise data and providing a clear picture of the subject under investigation. The design has been adopted by numerous studies in different fields. Some have concentrated in the manufacturing Sectors (Gitonga, 2017; K'Obado, 2019; Cherchata, Popovychenko, Andrusiv, Gryn, Shevchenko & Shkuropatskyi, 2022). While others in the logistics sector (Werner-Lewandowska & Golinska-Dawson, 2021) Paultry Industry (Moonsri, Sethanan & Worasan, 2022).

3.3 Target Population

The research's target population were all the 47 Licensed Online Stores in Kenya as listed by the Consumer Insight (2022) and shown in appendix III. The online stores provide convenience for customers as they can place their orders virtually and be able to get what they need delivered at their place and time of convenience. Given the small and manageable population size, a census was conducted.

3.4 Data Collection

The research employed primary data that was acquired via an online self-administered questionnaire. Primary data was sufficient as it empowered the researcher in acquisition of first hand and reliable information from the participants. This method was also cost-effective because

it only needed a well-structured questionnaires, which used the available do-it-yourself online survey tools. The study concentrated on the 47 supply chain heads, Distribution/Logistics managers and ICT Managers of online stores in Kenya or their equivalent as the respondents. The managers were preferred as they were directly engaged in the Distribution Process and respondents were knowledgeable in the subject under study. The questionnaire was categorized into four parts based on the study objectives. Part A covered biographic background, B was made up of Distribution Management Practices, section C consisted of Performance Measures of Outbound Logistics based on the adoption of Distribution Management Practices.

3.5 Data Analysis

Gathered information were analyzed via regression and descriptive analysis. Questionnaires were scrutinized to ascertain that the output is complete and accurate. Objective one, which was to decide the Extent of adoption of Distribution Management Practices by the online stores in Kenya was analyzed using descriptive statistics (Standard Deviation & Means). This methodology was able to show the extent of adoption as a five point Likert scale was used. Objective two of the study which was to determine the Relationship between Performance of Outbound Logistics and Distribution Management Practices was analyzed using regression analysis. Regression analysis was suitable as it aided in bringing out the correlation between variables being studied. Objective three which was to determine the challenges faced in the implementation of DMP by the online stores in Kenya was analysed through descriptive statistics, measured by means and standard deviations. SPSS was used as the analysis tool. The study carried out five regression analysis of Cost, Returnability, Order Visibility, Timeliness and general performance of outbound logistics taking into account all the four indicators. Regression model that the paper used:

 $Y = \beta 0 + \beta 1 X_1 + \beta 2 X_2 + \beta 3 X_3 + \beta 4 X_4 + \beta 5 X_5 + e$

Where;

Y = Measure of Performance of Outbound Logistics

 $Y_1 = Cost$

 $Y_2 = Returnability$

 $Y_3 = Order Visibility$

 $Y_4 = Timeliness$

- X₁₌Fleet Management
- X₂₌ Labeling and Packaging
- $X_{3=}$ Collaboration
- X₄₌ Backhaul Management
- $X_{5=}$ Information Sharing
- $X_{6=}$ Omni-Channel Distribution
- e = error term
- $\beta 0 = constant$

Objectives	Data to be collected	Data collection tool	Analysis needed
General Information	SECTION A	Structured Questionnaire	Descriptive Statistics (percentages)
The extent of adopting the Distribution management practices	SECTION B	Structured Questionnaire	Descriptive Statistics
The relationship between DMP and Performance of Outbound Logistics	SECTION C	Questionnaire	Regression Analysis
Challenges faced in the implementation of Distribution management practices	SECTION D	Structured Questionnaire	Descriptive Statistics

Table 3. 1 Summary of Data Collection and Data Analysis

Source: Researcher (2023)

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

The chief purpose of the study had to determine the impact of Distribution Management Practices on performance of outbound logistics of Kenyan online stores. This segment analyses the outcomes with respects to demographic information, extent of adoption as well as the correlation between Distribution Management Practices on performance of outbound logistics.

4.2 Response Rate

The study concentrated on 47 Licensed Online Stores in Kenya as listed by the Consumer Insight (2022). The researcher was able to collect 39 completed questionnaires, resulting in a response frequency of 83%, which was deemed adequate for analysing data as Cooper and Schindler (2003) posit that a response rate surpassing 70% is sufficient for interpretation, presentation, and analysis of the results of any research.

4.3 Biographic information

The biographic data was gathered from the online stores in Kenya in order to obtain a perspective on the stores and the study's participants. This enclosed the position that they held in their online stores as well as the period they operated in the organizations.

Table 4.1 illustrates that 33.33% of the respondents were heads of SC, 46.15% were heads of Logistics/Distribution and 20.52% were heads of ICT. This implies that all the participants were at executive levels and were well suited in responding to the queries under study as per their immense knowledge.

On the period the managers had worked for the Online Stores in Kenya, 15.38% of the participant's had worked for less than a year, 23.08% had served for periods ranging from two to five years with 35.90% having worked for 6-10 years with the remaining 25.64% having served for over ten years. As per the outcome, 84.62% of the participants had served their entities for more than a year in the online stores and hence were experienced and knowledgeable enough to answer the questionnaires

Position occupied	Frequency	Percentage (%)
Head of Supply chain	13	33.33
Head Logistics/Distribution	18	46.15
Head of ICT	8	20.52
Length of service(years)	Frequency	Percentage (%)
Below 1	6	15.38
2 -5	9	23.08
6 -9	14	35.90
Over 10	10	25.64
Total	39	100

Table 4.1 Respondent's Information

Source: Study Data (2023)

4.3.2 Period of Existence

Study's participants had to answer the period that the online stores had existed in Kenya and for how long they had adopted Distribution Management Practices and tabulation in 4.2 outlines the replies.

Table 4	. 2 Period	of Adoption	and Existence
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Existence (years)	Frequency	Percentage (%)
Below 5	9	23.08
6-10	19	48.72
Over 11	11	28.20
Period of Adoption	Frequency	Percentage
Less than 2	7	17.95
3-5	15	38.46
Over 6	17	43.59
Total	39	100

Source: Study Data (2023)

Table 4.2 indicate that 23.08% of online stores had operated in Kenya for a period of less than 5 years whereas 48.72% have been operational for 6 to 10 years with the last 28.20% being in existence for above eleven years. This points out that most of the online stores signified by

76.92% have been functional for more than five years which is a substantial time for them to acquire knowledge on DMP and its impact on performance.

On the period of adoption, 17.95% of the online stores had adopted Distribution Management Practices for a period of less than two years while 38.46% had adopted Distribution Management Practices for a period of between two to five yrs and the last 43.59% adopted Distribution Management Practices for over six years. This points out that most of the online stores in Kenya represented by 82.05% had adopted Distribution Management Practices for more than two years which is a significant period for them to gain insight on DMP and its bearing on performance of outbound logistics.

4.4 Distribution Management Practices

Objective one of the paper sought to examine the adoption extents of Distribution Management by the Kenyan online stores and the outcomes are presented below.

4.4.1 Fleet Management

The research sought to ascertain the extent that online stores in Kenya had adopted Fleet Management and the outcome are indicated in 4.3

	Mean	Std. Dev
The entity engages in route planning and scheduling	3.7586	.43549
The firm tracks its fleets and orders	3.7241	1.03152
The firm has distribution centers near the clients to minimize distance of transportation	4.0000	.80178
The firm frequently services the trucks/Bikes	3.7346	.45259
The firm ensure that trucks/Bikes loads are optimized during deliveries	4.0690	.65088
Overall Score	3.8573	.67445

Table 4. 3	3 Fleet	Management
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Source: Study Data (2023)

From table 4.3, the firm engaging in route planning and scheduling (M=3.75, SD=0.43), the firm tracking its fleets and orders (M=3.72, SD=1.03) and the entities placing distribution centers near

the clients to minimize distance of transportation (M=4.00, SD=0.80) were all largely adopted by the Kenyan online stores. The firm frequently servicing the trucks/Bikes (M=3.73, SD=0.45) as well as the firm ensuring that trucks/Bikes loads are optimized during deliveries (M=4.06, SD=0.65) were also largely adopted by the online stores.

4.4.2 Labelling and Packaging

The study aimed at finding out the adoption extents of Labelling and Packaging by the online stores in Kenya and the outcome are presented below.

	Mean	Std. Dev
The entity properly labels the products	3.2821	1.27628
The firm downsizes packaging for ease of handling and storage	3.4359	.94018
The firm provides instruction on how to use the product	3.1538	1.03970
The firm packages products in a way that enhances loading and utilization of truck and warehouse	3.0256	.81069
Overall Score	3.2243	1.01672

Table 4. 4 Labeling and Packaging

Source: Study Data (2022)

Table 4.4 indicates that the entity properly labelling the products (M=3.28, SD=1.27) and the firm downsizing packaging for ease of handling and storage (M=3.43, SD=0.94) were moderately adopted as indicated their means. The firm providing instruction on how to use the product (M=3.15, SD=1.03) and the firm packaging products in a way that enhances loading and utilization of truck and warehouse (M=3.02, SD=0.81) was implemented to a moderate extent as well by online stores in Kenya.

4.4.3 Collaboration

The research preferred to determine the adoption level of Collaboration by the online stores in Kenya and table 4.5 portrays that the stores collaborating with vendors (M=4.17, SD=0.75), collaboration with clients (M=3.92, SD=0.53), sharing and encouraging inter-departmental collaborations (M=3.97, SD=0.98) and collaboration that fosters real time visibility amongst

partners (M=4.25, SD=0.81) were all largely implemented as indicated by the deviations and means

Table 4.5 C	Collaboration
--------------------	---------------

	Mean	Std. Dev
The firm collaborates with suppliers	4.1795	.75644
The entity collaborates with clients	3.9231	.53235
The firm shares and encourages inter-departmental collaborations	3.9744	.98641
Collaboration fosters real time visibility amongst partners	4.2564	.81815
Overall Score	4.0834	.77333

Source: Study Data (2022)

4.4.4 Backhaul Management

The research wanted to ascertain the levels of adopting Backhaul Management by online stores and the findings are as presented in 4.6

Table 4. 6 Backha	aul Management
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	Mean	Std. Dev
The trucks/Bikes always carry something back after delivery		.86388
The firm ensures that loading of trucks/Bikes is optimized	3.4359	1.14236
The firm collaborates with other firms for efficient transportation	3.1282	1.15119
The entity collaborate with the customers for efficient delivery and returns	3.2308	1.13466
Overall Score	3.2500	1.07324

Source: Study Data (2022)

Table 4.6 exhibits that the trucks/Bikes always carrying something back after delivery had been moderately implemented (M=3.20, SD-0.86) and ensuring that loading of trucks/Bikes is optimized was moderately adopted as per their mean (3.43) and deviation (1.14). The firm collaborating with other firms for efficient transportation (M=3.12, SD=1.15) and collaborating with the customers for efficient delivery and returns (M=3.23, SD=1.13) were equally moderately adopted by the online stores in Kenya as viewed from their means and deviations.

4.4.5 Information Sharing

The study projected to examine the adoption level of information sharing by the online stores in Kenya and the results are tabled below.

	Mean	Std. Dev
The entity passes across pertinent information to their vendors	3.3846	1.11486
The entity shares key information with her customers	3.4359	.99459
There is proper information flow within the organization	3.3590	1.11183
The firm has an integrated system for information sharing	3.4103	1.22942
Overall Score	3.3975	1.11267

Table 4. 7 Information Sharing

Source: Study Data (2022)

From table 4.7, sharing pertinent information with their suppliers (M=3.38. SD=1.11), sharing key information with customers (M=3.43. SD=0.99) having accurate information flowing through the entity (M=3.35. SD=1.11) as well as having an integrated system for information sharing (M=3.41. SD=1.22) were moderately adopted by online outlets in Kenya as per their means.

4.4.6 Omni-Channel Distribution

The research sought to ascertain the extent that online stores in Kenya had adopted Omni-Channel Distribution and the outcome are portrayed in 4.8

 Table 4. 8 Omni-Channel Distribution

	Mean	Std. Dev
The entity offers a variety of distribution channels	3.9231	.53235
The entity has a platform that customers can access their products	3.9744	.98641
The clients are given options to choose where they need their products delivered	4.2564	.81815
The firm delivers products where and when the customers need them		.59802

Overall Score Source: Study Data (2022)

Table 4.8 illustrates that the entity offers a diversified distribution channels to a large extent as designated by the M of 3.92 and SD of 0.53 with the farm having a platform that customers can access their products also being largely adopted with the mean of 3.97 and SD of 0.98. The clients being given options to choose where they need their products delivered (M=4.25, SD=0.81) and delivering products where and when the customers need them (M=3.89, SD=0.59) were largely adopted by the online stores.

4.4.6 Ranking of Distribution Management Practices

Distribution Management Practices were ranked according to their adoption levels and table 4.9 illustrates the results. The standing of Distribution Management Practices were tabulated in a descending order based on the extent of adoption.

Mean	Std. Deviation	Ranking
4.0834	0.77333	1
4.0128	0.73375	2
3.8573	0.67445	3
3.3975	1.11267	4
3.2500	1.07324	5
3.2243	1.01672	6
	4.0834 4.0128 3.8573 3.3975 3.2500	4.08340.773334.01280.733753.85730.674453.39751.112673.25001.07324

 Table 4. 9 Ranking of Distribution Management Practices

Source: Study Data (2022)

Table 4.9 tabulates that Collaboration was firstly ranked as per its adoption level since it was largely adopted with the M of 4.08 and Deviation of 0.77.

Secondly ranked by the online stores in Kenya was Omni Channel Distribution which was largely adopted as supported by the general score of M of 4.01 and deviation of 0.73.

The overall score indicates that Fleet Management was also largely adopted by the online stores with the mean of 3.85 and S.D of 0.67 and thus is ranked third based on the extent of adoption.

Information Sharing was ranked fourth as it was moderately adopted (M=3.39. SD=1.11) with the Backhaul Management being ranked fifth and was also adopted to a moderate extent (Mean=3.25, SD=1.07) as observed from their individual Means and Deviations

Lastly ranked is labelling and packaging which was adopted to a moderate extent (M=3.22, SD=1.01) by the online stores in Kenya as indicated by the deviation and mean.

4.5 Distribution Management Practices and Performance of Outbound Logistics

Objective two of the paper aimed at determining the relationship between Distribution Management Practices (DMP) and Performance of Outbound logistics by the online stores in Kenya. The study carried regression analysis at two levels. The first one was the relationship between DMP and individual logistics performance measures namely Cost, Returnability, Order Visibility and Timeliness. The second level was the overall regression model that covered the relationship between DMP and Performance of outbound logistics using a composite measure of the four indicators. Thus in total, five regressions were carried out and the outcomes are as discussed.

4.5.1 Distribution Management Practices and Cost

Data was regressed to determine the correlation between DMP and Cost and the findings are in 4.10, 4.12 and table 4.13

Mode	el	Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	1.471	.652		1.256	.051
	Fleet Management	.142	.054	.164	2.630	.036
	Labeling & Packaging	.430	.105	.508	4.086	.000
1	Collaboration	.197	.164	.164	1.201	.039
	Backhaul Management	.161	.084	.093	1.917	.478
	Information Sharing	.108	.114	.138	.948	.350
	Omni-Channel	.236	.123	.220	1.919	.045

Table 4. 10 Regression Coefficients of Cost

a: Cost

Source: Study Data (2022)

The regression equation with cost as the dependent variable is

$Y_1 = 1.471 + .142X_1 - .430X_2 + .197X_3 + .161X_4 + .108X_5 + .236X_6$(i)

As per table 4.10, the outcome illustrates that the T-values of Fleet Management (t=2.630, P<0.05) and Labeling and Packaging (t=-4.086, P<0.05) both exceed 1.96 an indication that Fleet management and labelling and packaging influences cost. This is corroborated by their P values which are less than 0.05%. Collaboration (t=1.201, P<5%) and Omni-Channel Distribution (t=1.919, P<5%) both contain T values not exceeding 1.96. However, their p values do not surpass 5% an indication that collaboration and Omni-channel also influences Cost of online stores in Kenya. This implies that Fleet Management, Labeling and Packaging, Collaboration and Omni-Channel Distribution and Omni-Channel Distribution and Influences cost of online stores in Kenya. Backhaul Management (t=1.917, P>0.05) and Information Sharing (t=0.948, P>0.05) on the other hand had a t value that does not surpass 1.96 and a p value exceeding 0.05 inferring that they had no influence on Cost.

Table 4. 11 Model Summary of Cost	

Model	R	R	Adjusted	Std. Error	Change Statistics					
		Square	R Square	of the	R Square	F	df1	df2	Sig.	F
				Estimate	Change	Change			Change	
1	.830 ^a	.688	.630	.38968	.688	11.778	6	32	.000	

a. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel

Source: Study Data (2022)

As illustrated in 4.11, R Square = 69%. This denotes that 69% of the changes in Cost was ascribed to the adoption of Distribution Management Practices in the model. The variance of

31% which cannot be explained is attributed to other variables not covered by the model and pure chance factors.

Table 4. 12 ANOVA for Cost

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	10.731	6	1.788	11.763	.000 ^b
1	Residual	4.859	32	.152		
	Total	15.590	38			

a: Cost

b. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study Data (2022)**

At 0.005 significance level, Table 4.12 displays the calculated F value at degree of freedom (6, 32) of 11.778 was significant as it is superior to the critical value of 1.7888. This is supported by P (0.00) being less than 5% implying that the model is statistically substantial and sufficient for predicting Cost.

4.5.2 Distribution Management Practices and Returnability

Information was regressed to determine the relationship between DMP and returnability. The outcome are displayed in table 4.13, 4.14 and 4.15.

Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	2.172	.905		2.400	.022
	Fleet Management	.428	.142	.032	3.014	.046
	Labeling & Packaging	.325	.127	.380	2.568	.015
1	Collaboration	.176	.198	.145	.889	.039
	Backhaul Management	.063	.101	.096	.624	.037
	Information Sharing	.247	.137	.313	1.804	.040
	Omni-Channel	.304	.148	.281	2.054	.049

 Table 4. 13 Regression Coefficients of Returnability

a: Returnability

Source: Study Data (2022)

The regression equation with Returnability as the dependent variable is

$$Y_2 = 2.172 + .428X_1 + .325X_2 - .176X_3 + .063X_4 + .247X_5 + .304X_6$$
(ii)

As given by tabulation in 4.13, the findings indicate that the T values of Fleet Management (t=3.014, P<0.05), Labeling and Packaging (t=-2.568, P<0.05) and Omni-Channel Distribution (t=2.049, P<0.05) all exceed 1.96 and therefore positively influence returnability. This is corroborated by their p values which do not surpass 0.05%. Collaboration (t=0.889, P<0.05), Backhaul Management (t=0.624, P<0.05) and Information Sharing (t=1.804, P>0.05) on the other hand have a t value not surpassing 1.96 but a p value which does not exceed 0.05%. Therefore, the study will use the p values which implies that Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution all have a noteworthy relationship and influences Returnability of online stores in Kenya.

Table 4. 14 Model Summary of Returnability

Model	R	R	Adjusted	Std. Error	Change Statistics				
		Square	R Square	of the	R Square	F	df1	df2	Sig. F
				Estimate	Change	Change			Change
1	.746 ^a	.557	.474	.46906	.557	6.709	6	32	.000

a. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study Data (2022)**

As specified in Table 4.14, R square is 56%. This is an indication that 56% of the variance in Returnability is explained by the variations in Distribution Management Practices in the model. This denotes a decent model as the variance not explained is 44% which is attributed to pure chance factor and other variables left out in the model and. The ANOVA outcomes are presented in 4.15.

\Table 4. 15 ANOVA for Returnability

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	8.857	6	1.476	6.709	.000 ^b
1	Residual	7.041	32	.220		
	Total	15.897	38			

a: Returnability

b. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study Data (2022)**

At 0.05 percent significance level, Table 4.15 denotes the F figure at degree of freedom (6, 32) of 6.709 was significant as it surpasses the critical figure of 1.476. This is verified by the P of 0% which does not surpass 5% inferring that the study model is appropriate for predicting Returnability.

4.5.3 Distribution Management Practices and Order Visibility

Information was regressed to discover the relationship between DMP and Order Visibility and the outcome are tabulated in 4.16, 4.17 and 4.18

Model				Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	1.851	.619		2.991	.009
	Fleet Management	nent 1.120 .197		.165	5.685	.025
	Labeling & Packaging	.185	.087	.120	2.126	.032
1	Collaboration	.818	.135	.810	6.059	.000
	Backhaul Management	.040	.069	.073	.573	.570
	Information Sharing	.006	.094	.009	.064	.051
	Omni-Channel	.242	.102	.046	2.373	.004

Table 4. 16 Regression Coefficients of Order Visibility

a: Order Visibility

Source: Study Data (2022)

The regression equation with Order Visibility as the dependent variable is

As displayed in table 4.16, the findings reveals that the T values of Fleet Management (t=5.685, P<0.05), Labeling and Packaging (t=-2.126, P<0.05), Collaboration (t=6.059, P<0.05) and Omni-Channel Distribution (t=2.373, P<0.05) are all more than 1.96 and thus influences Order Visibility. The outcome is corroborated with their p values which are all less than 5%. Information Sharing (t=0.064, P>0.05) however has a T value which is lower than 1.96 but a p value not exceeding 0.05 an indication that information sharing influences order visibility. This implies that Fleet Management, Labeling and Packaging, Collaboration, Information Sharing and Omni-Channel Distribution all have a noteworthy relationship and influences Order Visibility of online stores in Kenya. Backhaul Management (t=0.573, P>0.05) on the other hand had a t value of lower than 1.96 an indication that it does not influence order visibility. This is supported by the fact that the p exceeded 0.05% inferring that Backhaul Management had no influence on Order Visibility of Kenyan online stores.

 Table 4. 17 Model Summary of Order Visibility

Model	R	R	Adjusted	Std. Error	Change Sta	tistics				
		Square	R Square	of the	R Square	F	df1	df2	Sig. I	F
				Estimate	Change	Change			Change	
1	.836 ^a	.699	.643	.32107	.699	12.409	6	32	.000	

a. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study Data (2022)**

As tabulated in Table 4.17, R^2 is 70% denoting that 70% of the changes in Order Visibility is explained by the variation in Distribution Management Practices in the model. Based on the thumb's rule, this is a satisfactory model. Variation not explained is 30% which is attributed to pure chance and variables not covered by the model and. The ANOVA findings are tabulated in 4.18.

Table 4. 18 ANOVA for Order Visibility

Mode	el	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	7.676	6	1.279	12.417	.000 ^b
1	Residual	3.299	32	.103		
	Total	10.974	38			

a: Order Visibility

b. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Source: Study Data (2022)

At 5% significance level, Table 4.18 affirms that the calculated F at degree of freedom (6, 32) of 12.417 was significant as it is superior to the critical value of 1.279. This is reinforced by the fact that the p of 0.000 does not surpass 5%. Thus, the study model is noteworthy and appropriate for predicting Order Visibility.

4.5.4 Distribution Management Practices and Timeliness

Information was regressed to ascertain the relationship between Distribution Management and Timeliness and the results are displayed in table 4.19, 4.20 and 4.21

Model		Unstandardize	ed Coefficients	Standardized T Coefficients		Sig.
		В	Std. Error	Beta		
	(Constant)	1.260	.513		2.456	.015
	Fleet Management	.111	.080	.153	1.382	.007
	Labeling & Packaging	.080	.072	.112	1.111	.025
1	Collaboration	.803	.112	.796	7.169	.000
	Backhaul Management	.163	.058	.299	2.816	.008
	Information Sharing	.060	.078	.091	.771	.046
	Omni-Channel	.271	.084	.302	3.226	.003

Table 4. 19 Regression Coefficients of Timeliness

a: Timeliness Source: Study Data (2022)

The regression equation with Timeliness as the dependent variable is

$Y_2 = 1.260 + .111X_1 - .080X_2 - .803X_3 + .163X_4 + .060X_5 + .217X_6$(iv)

As tabulated in 4.19, the outcome portrays that the T values of Collaboration (t=7.161, P<0.05), managing Backhaul (t=2.826, P>0.05) and Omni-Channel Distribution (t=3.219, P<0.05) all exceed 1.96 and thus influences Timeliness of Kenyan Online stores. This was supported by the fact that their p values were also less than 0.05%. Managing Fleet (t=1.382, P<0.05), Labeling

and Packaging (t=-1.111, P<0.05) and Information Sharing (t=0.771, P>0.05) all had a T value of less than 1.96. However, their p values did not surpass 0.05% an indication that they influence Timeliness. This implies that Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution all have a positive relationship and influences Timeliness of online stores in Kenya.

Table 4. 20 Model Summary of Timeliness

Model	R	R	Adjusted	Std. Error	Change Sta	Change Statistics					
		Square	R Square	of the	R Square	F	df1	df2	Sig. F		
				Estimate	Change	Change			Change		
1	.891 ^a	.793	.755	.26625	.793	20.469	6	32	.000		

a. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study (2022)**

As tabulated in 4.20, the R square value is 79%. This denotes that 79% of the variance in Timeliness is attributed to the variation in the Distribution Management Practices in the model. The variance that the study does not explain is 21% which accounts for variable not in the model and pure chance factors. ANOVA results are tabulated in 4.21.

Table 4. 21 ANOVA for Timeliness

Mode	el	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	8.706	6	1.451	20.436	.000 ^b
1	Residual	2.268	32	.071		
	Total	10.974	38			

a: Timeliness

b. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study Data (2022)**

At 5% significance level, Table 4.21 indicates that the calculated F value at degree freedom of 6, 32 of 20.436 was significant as it is superior to the critical value of 1.451. This is confirmed by

the P of 0.000 which is less than 5% hence the model is appropriate for predicting Timeliness of online stores in Kenya.

4.5.5 Distribution Management Practices and Performance of Outbound Logistics

The research sought to examine the overall relationship between Distribution Management Practices and Performance of Outbound Logistics of Online Stores in Kenya. The individual indicators of performance of outbound logistics have been carried out and thus it's important to have a composite measure of outbound logistics performance. This needed to be analysed separately as the study embarked at ascertaining the influence of DMP on Performance of Outbound Logistics in general and not the parameters operationalized under performance of outbound logistics. Thus, data was regressed and the outcome are as explained.

Model		Unstandardize	ed Coefficients	Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
	(Constant)	1.701	.382		4.453	.026
	Fleet Management	.885	.060	.926	14.749	.000
	Labeling & Packaging	.105	.053	.112	1.981	.042
1	Collaboration	.221	.083	.016	2.663	.006
	Backhaul Management	.103	.043	.004	2.395	.049
	Information Sharing	.140	.058	.162	2.418	.021
	Omni-Channel	.168	.063	.058	2.667	.285

 Table 4. 22 Regression Coefficients of Performance of Outbound Logistics

a. Dependent Variable: Performance of Outbound Logistics **Source: Study Data (2022)**

The equation for linear regression of performance of outbound logistics is:

 $Y = 1.701 + .885X_1 - 0.105X_2 + .221X_3 + .103X_4 + .140X_5 + .168X_6$

Where

Y = Performance of Outbound Logistics

X₁= Fleet Management

X₂= Labeling and Packaging

 X_3 = Collaboration

X₄= Backhaul Management
 X₅= Information Sharing
 X₆= Omni-Channel Distribution

From table 4.22, Distribution Management Practices (Fleet Management (t=14.749, P<0.05), Labeling and Packaging (t=-1.981, P<0.05), Collaboration (t=2.663, P<5%), Backhaul Managing (t=2.395, P>5%) and Information Sharing (t=2.418, P>5%) all contain a relationship and influences performance of outbound logistics of Kenyan online stores. This is supported by the fact that the P values do not exceed 0.05 and the T values are above 1.96. Omni-Channel Distribution (t=2.667, P>0.05) had a p value of greater than 0.05 inferring that it had no influence on performance of outbound logistics of online stores in Kenya. The model portrays that upon all variables being maintained at zero, the performance of outbound logistics' value of becomes 1.701.

Table 4. 23 Model Summary of Performance of Outbound Logistics

Model	R	R	Adjusted	Std. Error	Change Statistics				
		Square	R Square	of the	R Square	F	df1	df2	Sig. F
				Estimate	Change	Change			Change
1	.966 ^a	.934	.922	.19796	.934	75.362	6	32	.000

a. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel **Source: Study data (2022)**

From table 4.23, R^2 of 92% denotes that 92% of the variation in Performance of outbound logistics is attributed to Distribution Management Practices. The outcome is considered very good as per the rule of thumb as only 8% of the changes in Performance of outbound logistics unexplained. Analysis of variance is outlined in table 4.24

 Table 4. 24 ANOVA for composite Performance measure

Mod	el	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	17.720	6	2.953	12.356	.000 ^b
1	Residual	1.254	32	.239		
	Total	18.974	38			

a: Performance of Outbound Logistics

b. Predictors: (Constant), Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Source: Study Data (2022)

At 5% significance level, Table 4.24 specifies calculated F figure at the degree of freedom of (6, 32) of 12.356 as noteworthy since it was bigger than the critical value of 2.953. This is supported by the P of 0.000 that is less than 5% hence the model is appropriate for predicting Performance of Outbound Logistics of online stores in Kenya

4.6 Challenges Faced in Implementing Distribution Management Practices

Objective three needed to ascertain the barriers experienced in implementing Distribution Management Practices (DMP) and the results are tabulated under 4.25.

	Mean	Std. Dev
Existence of poor logistics infrastructure that limits smooth transportation of products	3.9744	1.11183
There exist a challenge of last mile deliveries in some places that hampers efficient distribution management	3.9231	.98367
Lack of coordination between clients and the firm due to information flow fragmentation	3.8974	1.02070
There is unreliability in delivery schedules as clients can order at any time and return at any time	3.8462	.87475
Distribution Management involves high investment related costs at the initial stages	3.8205	.68333

Table 4. 25 C	Challenges of	Distribution	Management im	plementation

Source: Study Data (2022)

From table 4.25 high investment related costs at the initial stages (M=3.82, SD=0.68), Lack of coordination between clients and the firm due to information flow fragmentation (M=3.89, SD=1.02) and poor logistics infrastructure that limits smooth transportation of products (M=3.97, SD=1.11) were determined to be barriers of implementing DMP to a large extent. Unreliability in delivery schedules as clients can order at any time and return at any time (M=3.84, SD=0.87) and a challenge of last mile deliveries in some places that hampers efficient

distribution management with M of 3.92 and SD of 0.98 was ascertained, to a huge extent, as barriers faced in implementing Distribution Management Practices by Online Stores in Kenya.

4.7 Discussion of Research Findings

The study was steered by three specific objectives and the study achieved all. On objective one, which was to determine the adoption extent of Distribution Management Practices (DMP) by the online stores, it was ascertained that Collaboration, Omni Channel Distribution and Fleet Management were adopted to a large extent. Information Sharing, Backhaul Management and labeling and packaging on the other hand were moderately adopted to by the online stores. This means that objective one was achieved. The outcomes are reinforced by Material flow Theory as the flow of material (service/product) is the core principle of Distribution Management. These practices were implemented by the online stores to enhance the flow of material and products from the focal firm to the clients to boost the performance of outbound logistics. The different dimensions of MFT like natural, economic and social are also directly involved with the study with the key dimension being the economic dimension. The economic aspect relates with the minimization of outbound logistics costs by embracing best DMP with the natural aspect focusing on provision of products and packaging that has minimal effect to the environment

Collaboration was firstly ranked as per its adoption level since it was largely adopted with the Mean of 4.08 and Standard Deviation of 0.77. The outcome coincides with that of Galvez (2019) who found that collaboration has several advantages such as more visibility, flexibility, and shorter lead times. Duong and Chong (2020) add that real-time visibility strengthens the basis for decision-making at a strategic and tactical level, which enhances rapid response to network interruptions.

Secondly ranked by the online stores in Kenya was Omni Channel Distribution which was largely adopted as evidenced by the general score of mean of 4.01 and deviation of 0.73. The outcome agrees with that of Agyabeng-Mensah and Tang (2021) who pointed out that Omni-Channel Distribution enables a firm to provide services and products to their clients wherever the clients want them to as noted by. The firm provides an array of options in that the client can order a product virtually or electronically and decide where they want the product to be delivered whether at selected stores or at the convenience of their homes (Baah, et al., 2021).

The overall score indicates that Fleet Management was also largely adopted (M= 3.85, S.D=0.67) by the online stores and thus is ranked third based on the extent of adoption. The conclusion concurs with Saini et al (2022) who states that Fleet Management aids in the delivery of time utility to products and ensures that the commodities are availed to clients at the appropriate time and location so that they can be consumed. Yontar (2022) note that items may be shipped to the right place and time using a well-managed Fleet Management System to meet customer demands. Rizki and Augustine (2022) add that firms can use route planning to determine the most efficient routes for moving products from one supply chain node to another.

Information Sharing was ranked fourth as it was moderately adopted (M=3.39. SD=1.11). The outcome retracts that of Saini et al. (2022) as they found that Information Sharing plays a very vital role in distribution of products in and out of the company as the vendor can only supply the product that has been requested of him. Limiting the number of orders and deliveries is one way to cut costs. Improved information management in the distribution system aids in the reduction of such costs (Yontar, 2022).

Backhaul Management being ranked fifth was also adopted to a moderate extent (Mean=3.25, SD=1.07). The outcome goes against those of Wang et al (2021) who notes that backhaul management aids in having the delivery truck take something back to its destination after making a delivery rather than going back empty. As it only makes economic sense because the truck consumes nearly the same amount of gasoline and takes nearly the same amount of time to return to the focal organization. Wahab et al. (2021) note that Backhaul management assists an entity in optimizing truck loading by avoiding empty trips back to the destination, hence making the distribution network economically feasible.

Lastly ranked is labelling and packaging which was adopted to a moderate extent (M=3.22, SD=1.01) by the online stores in Kenya as indicated by the deviation and mean. The results disputes that of Baah, et al. (2021) who notes that rearrangements of patterns of loading and improved packaging helps in better utilization of trucks and warehouses as well as reduction of materials that's needed for packaging. Sharfan et al (2021) argues that having better packaging design boosts an entity's logistic performance and appropriates vehicle load

The second objective aimed at finding out the relationship between Distribution Management Practices and Performance of Outbound Logistics of online stores in Kenya. Five regressions were carried out and the outcome indicates that Distribution Management Practices influences Cost, Returnability, Order Visibility and Timeliness. On Cost, it was determined that Fleet Management, Labeling and Packaging, Collaboration and Omni-Channel Distribution influences cost while Backhaul Management and Information Sharing had no influence on Cost. On Returnability, it was ascertained that Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution all influenced Returnability of online stores in Kenya. Fleet Management, Labeling and Packaging, Collaboration, Information Sharing and Omni-Channel Distribution were found to influence Order Visibility while Backhaul Management had no influence on Order Visibility of online stores in Kenya. on Timeliness, it was established that Fleet Management, Labeling and Packaging, Collaboration, Backhaul Management, Information Sharing and Omni-Channel Distribution all had a positive relationship and influenced Timeliness.

The general regression analysis sought to ascertain the correlation amongst DMP and performance of outbound logistics of online stores in Kenya. Distribution Management Practices were noted to statistically and significantly have a relationships with performance of outbound logistics of online stores. These outcome agrees with Baah et al (2021) who note that sustainable transportation, sustainable packaging, information sharing and distribution, influenced financial performance. Kerubo indicated that labeling and packaging, sustainable transportation and backhaul management positively impacted reliability, flexibility and timeliness of Agro-chemical Firms. Werner-Lewandowska and Golinska-Dawson (2021) also established that collaboration, eco packaging and backhaul management influences logistics cost and return ability. The entities need to seamlessly and effectively distribute their products in a timely manner and in the right conditions as required by their clients and thus the need for Distribution Management Practices (DMP) as pointed out by Rizki and Augustine (2022). Based on James and Inyang (2022) Distribution Management is vital in enhancing delivery, minimize cycle time as well as reduce outbound logistics costs.

The findings indicate that there exists a positive and significant relationship between DMP and performance of online stores in Kenya. This implies that objective two of the study was also

achieved. The results are corroborated by RBV Theory that is of the view that organizations that own strategic resources have a significant competitive advantage over those that do not and attains enhanced performance. The online stores in Kenya have embraced DMP and have used it as their strategic resource and hence they have been able to boost their performance of outbound logistics as evidenced by 92% contribution of DMP towards performance of outbound logistics in the model summary.

The third objective aimed at ascertaining the challenges of implementing Distribution Management by Online stores in Kenya high investment related costs at the initial stages, Lack of coordination between clients and the firm due to information flow fragmentation, poor logistics infrastructure that limits smooth transportation of products, Unreliability in delivery schedules as clients can order at any time and return at any time and a challenge of last mile deliveries in some places that hampers efficient distribution management were noted to be among the key challenges of implementing Distribution Management Practices of online stores in Kenya. The outcome are aligned with literature as Singh & Deshmukh. (2022) found that cost has been the most important factor in the evaluation of performance associated with outbound logistics performance as it is obligated to transport goods and services to various destinations around the world. Poor coordination of good transport, inferior development levels of transport infrastructure, and insufficient fleets of trucks, deteriorating of products via mishandling, have all been established to among the key challenges in Distribution Management Implementation (Singh & Deshmukh. (2022; Sharfan et al., 2021 & Derose et al., 2020)

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The segment highlights the summarized outcome, draws conclusion, and recommends lessons from the outcome. Limitations and suggestions are discussed as well.

5.2 Summary of Findings

The core purpose of the paper was ascertaining the impact of Distribution Management Practices on outbound logistics' performance of online stores in Kenya. Three objectives guided the research and each one of them was attained. The foremost objective had to establish the adoption level of DMP, the second had to ascertain the relationship amongst DMP and performance of outbound logistics with the third being to determine the barriers experienced by the online stores in Kenya in implementing Distribution Management Practices of online stores in Kenya. Descriptive design was used and the study was carried out in all the 47 licensed online stores in Kenya.

On objective one, which was to ascertain the adoption levels of Distribution Management Practices by the online stores, it was ascertained that Collaboration, Omni Channel Distribution and Fleet Management were adopted to a large extent. Information Sharing, Backhaul Management and labeling and packaging on the other hand were moderately adopted by the online stores. On managing fleets, the online stores in Kenya the firm engaged in route planning and scheduling, tracked their fleets and orders, have distribution centers near the clients to minimize distance of transportation, frequently servicing the trucks/Bikes as well as the firm ensuring that trucks/Bikes loads are optimized during deliveries. On labeling and packaging, the online stores in Kenya properly labels the products, have downsized packaging for ease of handling and storage, provide instruction on how to use the product and package their products in a way that enhances loading and utilization of truck and warehouse

On collaboration, it was determined that the firm collaborates with suppliers, collaboration with clients, shares and encourages inter-departmental collaborations and engages in collaboration that fosters real time visibility amongst partners. On Backhaul Management, the online stores

ensure that trucks/Bikes always carrying something back after delivery and ensures that loading of trucks/Bikes is optimized. The firm also collaborates with other firms for efficient transportation as well as collaborate with the customers for efficient delivery and returns.

Information sharing was also adopted by the online stores in Kenya by sharing pertinent information with their suppliers, sharing key information with customers, having proper information flow within the organization as well as having an integrated system for information sharing. Lastly on Omni-channel distribution, the online stores in Kenya offers a variety of distribution channels, have a platform that customers can access their products, the clients being given options to choose where they need their products delivered and delivering products where and when the customers need them.

Objective two sought to determine the relationship between Distribution Management Practices and Outbound Logistics Performance of online stores in Kenya. Five regression analysis were carried out and the outcome indicates that Distribution Management Practices influences Cost, Returnability, Order Visibility and Timeliness. The overall performance of Outbound Logistics was established to contain a statistically significant relationship with Distribution Management Practices and Fleet Management. Labeling and packaging, Collaboration, Information Sharing and Backhaul Management were established to substantially impact performance of outbound logistics. Omni Channel Distribution on the other hand had no relationship with performance of outbound logistics of online stores in Kenya.

Objective three aimed at determining the challenges faced in implementation of Distribution Management by Online stores in Kenya high investment related costs at the initial stages, Lack of coordination between clients and the firm due to information flow fragmentation, poor logistics infrastructure that limits smooth transportation of products, Unreliability in delivery schedules as clients can order at any time and return at any time and a challenge of last mile deliveries in some places that hampers efficient distribution management were noted to be among the key challenges of implementing Distribution Management Practices of online stores in Kenya.

5.3 Conclusion

The aim of the study was to ascertain the relationship between Distribution Management Practices and Performance of Outbound Logistics of online stores in Kenya. The results has revealed a positive and significant relationship between Distribution Management Practices and Performance of Outbound Logistics of Kenyan online stores.

Objective one, which had to ascertain the adoption extent of Distribution Management was achieved and it was affirmed that Collaboration, Omni Channel Distribution and Fleet Management were adopted to a large extent while Information Sharing, Backhaul Management and labeling and packaging were moderately adopted by the online stores. This implies that the first objective was met

It is concluded that objective two, which aimed at determining the relationship amongst DMP and Outbound Logistics' Performance of of online stores in Kenya, was achieved. As per the regression analysis, Distribution Management Practices (Fleet Management. Labeling and packaging, Collaboration, Information Sharing and Backhaul Management) were established to substantially correlate with performance of outbound logistics. Omni Channel Distribution on the other hand had no relationship with performance of outbound logistics of online stores in Kenya.

On objective three, it's concluded that the barriers facing Kenyan online stores in implementing Practices pertaining Distribution Management were high investment related costs at the initial stages, Lack of coordination between clients and the firm, poor logistics infrastructure, Unreliability in delivery schedules and last mile delivery.

5.4 Recommendations from the Study

As per the results of, the research her recommends that Online stores in Kenya should adopt Distribution Management Practices since they have been found to positively influence performance of outbound logistics of online stores. Specifically, the management of online stores should adopt collaboration, information sharing, backhaul management, labeling and packaging and fleet management as they were all found to influence performance of outbound logistics based on their p values. Online stores ought to largely adopt Information Sharing as it was adopted moderately. Literature has established that Information Sharing plays a very vital role in distribution of products in and out of the company as the vendor can only supply the product that has been requested of him. Limiting the number of orders and deliveries is one way to cut costs. Improved information management in the distribution system aids in the reduction of such costs.

Decision makers of online stores in Kenya should largely adopt Backhaul Management as they were moderately adopted. This is because backhaul management aids in having the delivery truck take something back to its destination after making a delivery rather than going back empty. As it only makes economic sense because the truck consumes nearly the same amount of gasoline and takes nearly the same amount of time to return to the focal organization. Backhaul management also assists an entity in optimizing truck loading by avoiding empty trips back to the destination, hence making the distribution network economically feasible

The management of online stores should adopt labelling and packaging to a large extent as they have been found to influence performance of outbound logistics. Rearrangements of patterns of loading and improved packaging helps in better utilization of trucks and warehouses as well as reduction of materials that's needed for packaging. Having better packaging design boosts its logistic performance and appropriates vehicle load

5.5 Limitations of the Study

The work fell short methodologically as it used primary data, which was accomplished through the use of virtual questionnaires distributed via e-mail. The study's limitation in collecting primary data was that survey participants may have been afraid that the information provided would be used by competitors. To overcome this limitation, participants were guaranteed that the data collected would be kept confidential and adopted only for academic reasons. To bolster this reassurance, a letter from the learning institution was obtained, which included information pertaining the motivation of the study.

Throughout the procedure of obtaining data, most study participants were preoccupied with their daily tasks. As a result, data collection from the preoccupied respondents could not be completed. This hindered the study from attaining 100% response rate. To guarantee sufficient

data collection and to enhance response rates, follow ups were made to remind the respondents about participating in the study and their confidentiality.

5.6 Suggestions for Further Research

Further papers ought to concentrate on another context as the current one concentrated on online stores in Kenya. Other researchers may carry out a research of the influence of managing Distribution practices on performance of outbound logistics of public sector, manufacturing firms or even multinational corporations. Upcoming research may add other variables in the study so as to determine whether the performance of outbound logistics may be improved upon the adoption of distribution management practices. A mediating or intervening variable may be introduced to the study. A mixture of primary and secondary data may be adopted by future researchers as the current study only adopted primary data.

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APPENDIX I; DATA COLLECTION LETTER



UNIVERSITY OF NAIROBI FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

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Our Ref: d67/34870/2019 November 09, 2022

National Commission for Science, Technology and Innovation NACOSTI Headquarters Upper Kabste, Off Waiyaki Way P. O. Box 30623- 00100 NAIROBI

RE: INTRODUCTION LETTER: MAUREEN RACHUONYO

The above named is a registered Master of Science in Supply Chain Management candidate at the University of Nairobi, Faculty of Business and Management Sciences. She is conducting research on "Distribution Management Practices And Performance Of Outbound Logistics Of Online Stores In Kenya".

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the Project.

The information and data required is needed for academic purposes only and will be treated in Strict-Confidence.

Your co-operation will be highly appreciated.

Dean's Office University of Natreau Pacuity of Business and Wanagement Science 6 Bes 36197.00100, Natrak

PROF. JAMES NJIHIA DEAN, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

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APPENDIX II; QUESTIONNAIRE

 This instrument purposes to obtain information on Distribution Management Practices and Performance of Outbound Logistics of Online Stores in Nairobi.

SECTION A: RESPONDENTS DEMOGRAPHICS

1. Kindly provide the identity of the firm (Optional).

b) Head of ICT []

.....

- 2. Kindly indicate your role in the entity
 - a) Head of Supply chain []
 - c) Head of Logistics/Distribution

3. What is the period (Years) of your working at the online store?

a) Below 1 [] b) 2 -5 [] c) 6-9 [] d) Above 10 []

4. For what period (Years) has this online store been operational in Kenya?

a) Below 5 ()
b) 6 - 10 ()
c) Above 11 ()

5. For what period (Years) has this online store adopted Distribution Management Practices?

a) Less than 2 ()
b) 3-5 ()
c) Above 6 ()

SECTION B: DISTRIBUTION MANAGEMENT PRACTICES IMPLEMENTATION

6. To what levels have the below Distribution Management Practices been implemented by your online store? Please use a scale 1 to 5:

FLEET MANAGEMENT	1	2	3	4	5
The firm engages in route planning and scheduling					
The firm tracks its fleets and orders					
The firm has distribution centers near the clients to minimize distance of					
transportation					
The firm frequently services the trucks					
The firm ensure that trucks loads are optimized during deliveries					
LABELLING AND PACKAGING					
The entity properly labels the products					
The firm offers returnable packaging materials					
The firm downsizes packaging for ease of handling and storage					
The firm provides instruction on how to use the product					
The firm packages products in a way that enhances loading and utilization					
of truck and warehouse COLLABORATION	1	2	3	4	5
The firm collaborates with suppliers					
The entity collaborates with clients					
The firm shares and encourages inter-departmental collaborations					
Collaboration fosters real time visibility amongst partners					
BACKHAUL MANAGEMENT	1	2	3	4	5
The trucks always carry something back after delivery					
The firm ensures that loading of trucks is optimized					
The firm collaborates with other firms for efficient transportation					
The entity collaborate with the customers for efficient delivery and returns					
INFORMATION SHARING					
The entity shares pertinent information with their suppliers					<u> </u>
The entity shares key information with her customers					
There is proper information flow within the organization					<u> </u>
The firm has an integrated system for information sharing					
OMNI-CHANNEL DISTRIBUTION	1	2	3	4	5
		4	5	-	

The entity offers a variety of distribution channels			
The entity has a platform that customers can access their products			
The clients are given options to choose where they need their products delivered			
The firm delivers products where and when the customers need them			
The entity offer a seamless customer experience			

SECTION C: DISTRIBUTION MANAGEMENT PRACTICES AND PERFORMANCE OF OUTBOUND LOGISTICS

7. To what extent has implementing Distribution Management Practices influenced performance of outbound logistics specified below? Please rate using a 1 to 5 scale

Measures of competitiveness	Rat	ing sca	le betv	veen	1-5
COST	1	2	3	4	5
The entity enjoys minimized labour cost					
The entity experiences reduced transportation cost					
RETURNABILITY	1	2	3	4	5
There is a mechanism in place that ensures the ease of returning unsatisfactory products					
The firm experiences minimal time in complaint handling arising from clients					
ORDER VISIBILITY	1	2	3	4	5
The firm easily tracks orders from placement to delivery					
There is ease of tracking returned products from the firm back to the entity					
TIMELINESS	1	2	3	4	5
The firm experiences timely delivery of orders					
The entity enjoys shortened lead time					

SECTION D: BARRIERS OF DISTRIBUTION MANAGEMENT PRACTICES IMPLEMENTATION

8. please indicate the level that you concur with the tabulated challenges of implementing Distribution Management Practice on a scale of 1 to 5

Challenges	Rating scale between 1-						
Challenges		5					
Distribution Management involves high investment related							
costs at the initial stages							
Lack of coordination between clients and the firm due to							
information flow fragmentation							
There is poor logistics infrastructure that limits smooth							
transportation of products							
There is unreliability in delivery schedules as clients can							
order at any time and return at any time							
There exist a challenge of last mile deliveries in some places							
that hampers efficient distribution management							

Any other barrier experienced

 Thank you for the Assistance	

APPENDIX III; LIST OF ONLINE STORES IN KENYA

AFFENDIA III; LISI OF UNLINE STOKES IN KENTA				
1. Amanbo	25. Livemall			
2. Avechi	26. Mall for Africa			
3. Bidor Buy Kenya	27. Mama mikes			
4. Binti	28. Maskani Kenya			
5. Buy Rent Kenya	29. Masoko			
6. Cheki	30. Mimi online store			
7. CitiMarket	31. MyDawa			
8. CommercialKe	32. My Property			
9. Dakika Online	33. Olx Kenya			
10. ElectroHub	34. Patabay			
11. ePharmacy	35. Phoneplace Kenya			
12. Fashion 254	36. Pigiame			
13. Fresh HaraQisha	37. Property Listings			
14. Fyndaa	38. Rondamo			
15. Game Store Kenya Online	39. Rupu			
16. Hann Online Shopping Mall	40. Saruk			
17. Jamboshop	41. Shopit			
18. Jiji	42. Shopsasa			
19. Jumia Kenya	43. Sky Garden			
20. Just Brands Kenya	44. Vivo Women			
21. Kalimoni Greens	45. Yaoota,			
22. Kaymu Online Shopping	46. VituMob.com			
23. Kenya Car Bazaar	47. Vituzote.Com			
24. Kilimall				

Source: Consumer Insight (2022)