OMNICHANNEL RETAILING AND PERFORMANCE OF LARGE SCALE RETAIL STORES IN NAIROBI CITY COUNTY, KENYA

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DECLARATION

This thesis is my original work and has not been presented for any award in any other University. No part of this thesis should be reproduced without the authority of the author and/or Kenyatta University.

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DEDICATION

This thesis is dedicated to my parents Mr. & Mrs. Kanoga for their inspiration, wisdom and unwavering support. Additionally, to my sons Peniel and Ron, I hope this thesis inspires you to seek knowledge with passion and purpose.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
BOPIS/BOPS	Buy online-Pick up in store
BORIS/BORS	Buy online-Return in store
BOSS	Buy Online-Ship to Store
CB-SEM	Covariance-Based Structural Equation Modelling
DF	Degree of Freedom
DiD	Difference-in-Difference
DIY	Do It Yourself
DV	Dependent Variable
DW	Durbin-Watson
GDP	Gross Domestic Product
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin
KSh	Kenya Shillings
Mobile Apps	Mobile Applications
NACOSTI	National Commission for Science, Technology and Innovation
OLS	Ordinary Least Squares
PCA	Principal Component Analysis
PLS-SEM	Partial least squares structural equation modelling
RBE	Retail Brand Equity
RBV	Resources Based view Theory

RETRAK	Retail Trade Association of Kenya
SEM	Structural Equation Model
SET	Social Exchange Theory
SD	Standard Deviation
SIG	Significance
SME	Small and Medium Enterprise
UK	United Kingdom
US	United States
UTAUT	Unified Theory of Acceptance and Use of Technology

OPERATIONAL DEFINITION OF TERMS

Brand equity	Market based intangible assets that are derived from brand association, brand awareness and brand image that enables the retail stores to generate higher margins in its existence.
Omnichannel integration	This how a retailer combines operations and interactions in terms of content and process consistently across all channels such as physical, mobile and online platforms in offering shoppers with a seamless customer experience while shopping.
Omnichannel service configuration	This relates to the range of service elements and related delivery outlets that are available which are manifested by transparency and breadth of channel service.
Dynamic capabilities	The absorptive and transformative capabilities of retail stores that utilize resources and processes in the integration of sale channels. The changes in the retail landscape, customer behaviours, and technological advancements have facilitated the need to utilize dynamic capabilities within the firm .
Large scale retail stores	Retail establishments characterized by annual gross sales volume of KSh 100 million – 10 billion, store size ranging from 1000 - 10,000 Square meters, and with more than one chain store. The categories include hypermarkets, supermarkets, food retail and specialty stores. They have ability to serve diverse needs of customer with range of products and tendency to adopt technology in their operations.
Omnichannel order fulfilment	Omnichannel order fulfilment is integrating several distribution channels and taking a comprehensive approach in terms of inventory management, delivery modes and returns to ensure customers' orders are fulfilled through a seamless experience.

Omnichannel retailing	The integration of all channels used by retail stores such as physical outlets, online channels, and mobile apps into one unified channel, through ensuring consistent channel service configuration and order fulfilment in all channels in delivering seamless shoppers' experience and enhancing retail performance.
Firm Performance	The success of omnichannel retailing outcome with respect to profitability growth, sales growth, market share growth and operational efficiency in retailing activities.

ABSTRACT

The retail sector faces performance challenges due to technological disruption, intense competition and unpredictable consumer behaviors. The retail sector has experienced a negative annualized average rate of revenue growth of 2.4% over the last seven years, and retailers have struggled with sales growth and operational efficiency. The objective of the study was to examine the effects of omnichannel retailing on performance of large scale retail stores in Nairobi City County, Kenya. The specific objectives were to determine the effects of omnichannel integration, omnichannel order fulfilment, and the omnichannel service configuration on the performance of large scale retail stores. The study established the moderating effects of dynamic capabilities and mediating effects of brand equity on the performance of large scale retail stores. This study was grounded by the following theories; Resource Based View (RBV), social exchange, dynamic capabilities, Unified Theory of Acceptance and Use of Technology (UTAUT), and double jeopardy theory. The study was guided by positivism research philosophy, utilized the cross sectional approach, descriptive and explanatory research designs. The unit of analysis was the large scale retail stores within Nairobi City County while the departmental heads from marketing and sales, information technology, finance, and operations/logistics were the unit of observation. The pilot testing was conducted on the study questionnaires prior to their utilization in data collection. The reliability of the questionnaire was assessed using Cronbach alpha where 0.7 level was considered reliable, and where all the variables in the study were found to be higher than the cut-off. The multiple linear regression was used in testing hypothesis and making inferences. The research utilized 5% significance level to determine significance in hypothesis testing. Content analysis was used to extract meaning, and make inferences from qualitative data. A correlation analysis revealed statistically significant correlation between omnichannel integration, omnichannel order fulfilment, and omnichannel services configuration, as well as brand equity and dynamic capability on the performance of large retail stores; indicating possible relationship between these variables. The regression analysis revealed that omnichannel retailing significantly affected the performance of large scale retail stores. It was observed that omnichannel integration, and omnichannel service configuration directly influenced the performance of large scale retail stores with the factors exuding statistically significant influence with the ability to explains 29.8% of the variability in retail stores performance. However, omnichannel order fulfilment has no statistically significant effect on the performance of large scale retail stores. The study found that dynamic capabilities and brand equity significantly affect the relationship between omnichannel retailing and the performance of large scale retail stores. The study therefore concludes that omnichannel retailing influences performance of large scale retail stores, and this effect is influenced by the stores' dynamic capabilities and brand equity. Thus, the study proposes that the retailing sector should embrace omnichannel retailing while optimizing dynamic capabilities and aligning with brand equity, which will enhance the overall performance retail stores. The findings indicate that omnichannel order fulfilment has no statistically significant effect on the performance of large scale retail stores, thus providing an avenue for future studies in different sectors with additional variables.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The retail industry faces performance challenges due to technological evolution, intense competition and unpredictable consumer behaviors. Retail performance is greatly impacted by internal practices and external trends (Zhang, 2024). The increased competition has forced retailers to continuously adapt to the changes in market and consumer behavior to survive (Ersoy, 2017). According to Iglesias- Pradas, Acquila-Natale and Del-Rio-Carazo (2022), technology advancement has given retailers a competitive advantage in the market. However, this has affected retailers' operations, performance and customer behaviours (Lynch & Barnes, 2020; Savastano, Dascenzo & Demarco, 2019). The deployment and leveraging of firm's resources and competences provide a competitive edge that drives firm performance in the context of operational efficiency, and growth in sales growth, market share, and profitability. (Ferreira & Ferreira, 2024).

Kenya National Bureau of Statistics indicates that, retail and wholesale sector percentage contribution to GDP was 7.7 in 2022 and 7.5 in 2023 indicating a decline in the growth rate in the sector (KNBS, 2024). The retail sector has experienced negative compounded annual growth rate at 2.4% over the last seven years, and retailers have struggled with sales growth **(**Cyton, 2023). The market has experienced a decline in customer count growth and cost volatility, leading to significant constraints on revenue growth (Simbisa, 2023). Customers have become more demanding and opportunistic as they switch between channels and retailers along their shopping journey in search of shopping experience and satisfaction (Gallino & Moreno,

2014). This poses a challenge for retailers in understanding consumer expectations of personalized and consistent experience that may cost the firm sales.

The proliferation of information systems as mobile apps, social networking platforms and the COVID-19 outbreak have all affected the performance of the retailing sector (Mosquera, Pascual & Ayensa, 2017; Salvietti, Ziliani & Ranfagni, 2022; Mukhopadhyay, Chauhan & Mishra, 2023). According to the Retail Trade Association of Kenya, the challenges facing the retail sector are low economic growth, sales growth and customer retention (RETRAK, 2020). The ability to predict store performance enables the retailer to manage stock levels, anticipate the sales levels and plan the sales force to serve customers (Panay, Penafiel & Zurita, 2021).

The global retail industry has faced challenges due to the digital technology evolution (Lynch & Barnes, 2020; Yrjola, Saarijarvi & Nummela, 2018). These phenomena have disrupted traditional brick and mortar retail businesses (Musyifah & Simanjuntak, 2016), and consumers' purchasing trends and expectations (Shi, Chen & Zhang, 2020). However, retailers have adapted to changes in the retail sector, through innovations in format creation and operating techniques to survive and grow (Cattapan & Pongsakornrungsilp, 2022; Fernie, Fernie & Moore, 2015). Retailers are utilizing dynamic capabilities within their organization that have created competitive advantages and enhanced superior firm performance in competitive and turbulent retailing environments (Bleady, Ali & Ibrahim, 2018). The study thus incorporates dynamic capabilities as a moderating variable.

These changes have led to the emergence of omnichannel retailing (Savisaari, 2016). The advancements in retail have facilitated consumer-brand engagement, brand image building and enhancement of customer overall experience (Bennett & Azhari, 2015). The brand image building has made retailers recognize significance of brand equity in affecting consumer-

purchasing intentions (Hansopaheluwakan, Oey & Setiawan, 2021). The brand equity has been incorporated in the study as mediator variable affecting the relationship between omnichannel retailing and retail performance.

Global total retail sales are projected to increase to 31.7 trillion U.S. dollars by 2025 in both online and physical stores (Statista, 2022). In the U.S., the retail sector has faced challenges as more than 9300 retail outlets have closed down due to competition rivalry from online retailers, the inability to adopt new retail evolutions and high and changing customer expectations (Chen & Chi, 2021). The effects of this have led to the closure of major leading physical stores of retailers' brands such as JC Penney, Sears, Urban Outfitters, Ralph Lauren and Le Chateau (Ladhari, Gonthier & Lajant, 2019). Macy, a departmental store in the U.S. launched click and collect retailing strategy in 2013 where it unified its digital wallet into its mobile application and website (Chen & Chi, 2021). The investments made by Amazon in the Indian apparel retailer Shoppers Stop, and the Whole Foods Market in the U.S. This indicates the firm's intention to develop an omnichannel retailing strategy (Sharma & Tewari, 2022).

The India's retail industry has been booming with a blend of online and physical stores with a valuation between U.S. (800 billion –1.0 trillion) dollars with omnichannel retailing being a major driver. Walmart acquired Flipkart, an India's online store at U.S. 16 billion dollars for a majority shareholding, valuing the store at U.S. 20 billion dollars (Sharma & Tewari, 2022). The COVID -19 lockdown disrupted conventional shopping in Thailand in 2021, resulting in the closure of some of fashion stores. In Thailand, customers between the ages of 22 and 40 searched for product information online when purchasing from physical and online stores, 80% of consumers used mobile shopping applications and 83.6% made online purchases (Cattapan & Pongsakornrungsilp, 2021).

According to Kenya National Bureau of statistics, Africa's economy grew by 4.8% in 2021 and 3.9% in 2022 this decline was attributed to a drop in household consumption and private investment brought by growing global prices and tighter monetary policy (KNBS, 2023). The African e-commerce retail sector is rapidly growing due to the presence of the youngest and second-largest population, high internet penetration emanating from smartphone usage, and digital payment adoption (Statista, 2022).

According to Stiehler-Mulder and Cunningham (2022), South Africa has seen relatively slow growth in the retail sector, with less spending by a consumer that was attributed to COVID-19 pandemic, economic and political factors attributed to unrest in Kwa-Zulu Natal and Gauteng. Matlala, Shumba and Shambare (2022), state that digital disruption in South Africa has shifted consumer behaviour trends that have caused low demand for retail spaces and decreased property values. Retailers in South Africa are paving the way for the introduction of omnichannel retailing platforms on the continent of Africa (Stiehler-Mulder & Cunningham, 2022). The first click to brick retail store in South Africa was established by the Yuppiechef store. The company believed the omnichannel strategy would add more value to the customers and enhance the store performance (Reyneke & Barnardo, 2019).

In Kenya, the official retail penetration rate is about 30%, which is considered very low as compared to South Africa that has 60 % (Cytonn, 2023). E-commerce trends in Kenya are promising and growing as it is projected in 2023 to be U.S. 3,238.00 million dollars. A yearly growth rate is expected to be 6.71% and market volume of U.S. 4,198.00 million dollars is expected in 2027 (Statista, 2023). The uptake of e-commerce is on upward trend in Kenya, consumers have embraced online shopping as results of effects COVID-19 (RETRAK, 2020). According to Kenya Institute for Public Policy Research and Analysis, the consumer purchasing

power has been eroded by the inflation rates, which have been averaging 7.7% in 2022 compared to 6.1% in 2021 (KIPPRA, 2023). According to Central Bank of Kenya and the inflation, pressures spilt over to 2023 at 7.8% in June and 2024 February 6.3% (CBK, 2024). Retailers are facing challenges in providing tailored and consistent customer experience, potentially influencing sales and overall retail performance.

1.1.1 Firm Performance

This is a multidimensional concept that indicates operational and financial performance of an organization (Rajapathirana & Hui, 2018). Firm performance has been treated as a singular construct focusing on financial aspect leading to short termism (Gupta, 2021). However, some firms have incorporated non-financial measures such as operational efficiency, product level qualities, and customer satisfaction (Gok & Peker, 2017). Performance is the capacity to offer desirable outcomes in form of survival, profit, return on investment and sales growth by a firm (Philip, 2011).

Firm performance measurement is based on financial and non-financial metrics that have been adopted by various studies. Gupta (2021) measured firm performance using two dimensions of financial and internal business processes. Santos and Brito (2012) used seven dimensions in measuring firm performance; customer satisfaction, employee satisfaction, growth, profit levels, value of market, environmental performance, and social performance. Karabulut (2015) and Sakrabani and Teoh (2021) used balanced scorecard performance dimensions of; internal business processes, financial aspects, customer, learning and growth. Lazaris *et al.* (2021) used two performance indicators of customer satisfaction and loyalty intentions. Thuo and Osoro (2022) used three dimensions of market share, profitability growth and customer satisfaction; Panay *et al*. (2021) used foot traffic, conversion rate, and total sales. Nampulsuksan and

Wonglorsaichon (2019) categorized performance into the following constructs of sales growth, profitability, market share, new customers, customer satisfaction and company brand value. According to Oh, Teo and Sambamurthy (2012) firms experience superior performance through satisfaction of existing customers and attracting new customers. The achievement of high gross margins and excellent customer service can be regarded as retail success (Mattila, King & Ojala, 2002). According to Adivar, Huseyinoglu and Christopher (2019) they are four key dimensions of omnichannel retail success that are responsiveness, efficiency, sustainability, and flexibility. Moreover, the omnichannel success can be measured by retail ranking and annual sales, with profitability linked to sales and efficiency influenced by number of stores.

The study employed two-dimensional constructs to operationalize firm performance, aligning with past studies that have used multi-dimensional constructs. The performance metrics of financial performance (sales growth, profit growth and market share growth) from Panay *et al.* (2021) and Thuo and Osoro (2022) were adopted. The other dimension was the operational efficiency adopted from (Guang, Song & Sun 2019; Liu & Song, 2023; Adivar *et al.,* 2019).

1.1.2 Omnichannel Retailing

Omnichannel retailing is the integration of all retail channels, through provision of seamless and synchronized customer experience during customers' shopping journey (Hossain, Akter & Dwivedi, 2020; Solem, Fredriksen & Sorebo, 2022), and increasing shoppers' touch points benefiting retailers, (Cattapan & Pongsakornrungsilp, 2022).The emphasis of omnichannel retailing focus on customer-brand-retail channel interactions which call for utilizing physical channel, online, social and mobile networks in reaching and satisfying customers' needs (Juaneda, Mosquera & Murillo, 2016; Galipoglu, Kotzab & Poppelbub, 2018). Omnichannel

retailing has grown to be a significant platform in retail sector, and several scholars have studied it to gain more insights.

Hen *et al*. (2022) conceptualized omnichannel retailing with constructs of integrated interactions and channel-service configuration. Kopot and Cude (2021) examined omnichannel retailing under the dimensions of configuration service quality, perceived fluency and channel integration. Xu and Jackson (2019) studied omnichannel retailing using the constructs of transparency, convenience, and uniformity in channels. Riaz *et al*. (2021) conceptualized omnichannel retailing into four dimensions of omnichannel fulfilment, omnichannel integration, omnichannel usability and omnichannel seamlessness.

Gao, Fan and Jia (2021) conceptualized omnichannel retailing into three dimensions' transparency, convenience, and seamlessness. Nguyen (2021) conceptualized omnichannel retailing dimensions as seamless information exchange, cross-channel order fulfilment, integrated operations, logistics and inventory management. This study conceptualized omnichannel retailing dimensions into the following dimensions omnichannel integration, omnichannel order fulfilment and omnichannel service configuration quality that is consistent with the following studies (Gao *et al*., 2021; Kopot & Cude, 2021; Riaz *et al*., 2021).

Omnichannel integration, the first construct under omnichannel retailing, refers to how well a retailer combines activities and process in all channels in offering a seamless shopping experience to the customers (Le & Nguyen-Le, 2020; Li & Gong, 2022; Zhang, Wang & He, 2018). The tenets of channel integration are information technology infrastructure coupled with finance, and human resources that necessitate the creation of seamless experience, behavioural responses, and retailer performance (Thaichon, Quach & Nguyen, 2023). This is accomplished

through the alignment of retailers' objective with channel design in delivering benefits to the retailer and its customers (Nguyen, 2021).

Omnichannel integration is regarded as the foundation of an effective omnichannel retailing strategy (Gao and Huang, 2021), and an important enabler of omnichannel retailing performance (Shen, Li & Wang, 2018). It affects firm sales growth through increased sales conversion, cross selling of products, customer satisfaction, brand engagement and confidence in purchasing (Nguyen, 2021; Cao & Li, 2015). Lee *et al.* (2019) posits that channel integration enhances customers' perception of omnichannel service quality, reducing their perceived risk that leads to increased desire to search, purchase and pay. According to Le and Nguyen-Le (2020), Nguyen (2021) and Shen *et al*. (2018), the level of shopping experience and customer satisfaction depend on channel integration quality (Le & Nguyen-Le, 2020; Nguyen, 2021; Shen *et al*., 2018).

Jiang, Xu and Bao (2015) conceptualized omnichannel integration into three constructs, which are channel access, information, and customer service integration. Zhang, Ren and He (2015) conceptualized omnichannel integration constructs as integration of product, price, promotion, and customer service, fulfilment of order, information, transaction and access. Nguyen (2021) studied channel integration and patronage intention and utilized integration interactions and omnichannel service configuration constructs. Li and Gong (2022) conceptualized omnichannel integration with three dimensions of relational, informational and transactional integration. Shi *et al*. (2020) used constructs of connectivity, flexibility, personalization integration, and consistency. The study conceptualized omnichannel integration as consistency in customer service, content and process as adopted by (Jiang *et al.*, 2015; Nguyen, 2021; Shen *et al*., 2018; Shi *et al*., 2020)

The extent of consistency in the omnichannel retailing affects consumers' product quality perception, store trust and ability of channel switching (Gao & Huang, 2021). Enhancement of content and process consistency generates seamless customer experience, and channel synergies that increase the value perception, saving cost and time, and reducing channel perceptional differences (Chen *et al.*, 2022). The studies on omnichannel integration have been conducted using different variables in omnichannel retailing. Nguyen (2021) examined customer patronage and experience; Zhang et al. (2018) examined consumer responses; Tyrvainen and Karjaluoto (2019) channel integration and omnichannel retailing; Gao and Huang (2021) examined loyalty of customers and Shen *et al*. (2018) studied perceived fluency and user experience.

The second dimension is omnichannel order fulfilment. This involves integrating several distribution channels and taking a comprehensive approach to satisfying consumers and fulfilling their orders (Taylor, Brockhaus & Murphy, 2019). Omnichannel order fulfilment operations are organization capabilities that efficiently and effectively direct inventory flow to right locations to fulfill customer orders (Davis-Sramek, Gibson & Defee, 2020). Omnichannel retailing places customer order fulfilment at the core of retailing management, thus need designing of integrative logistic fulfilment strategies based on customer satisfaction and costs (Wollenburg, Holzapfel & Kuhn, 2018)

The omnichannel order fulfilment strategies offered by retailers include BOPIS (Buy online and pick up in the store), BOSS (buy online and ship from the store), BORIS (buy online return in store) and reserve the product online and store pick up (Taylor *et al*., 2019; Akturk, Ketzenberg & Heim, 2018). Gao and Su (2017) indicate that among all channel integration strategies, BOPIS omnichannel fulfilment initiatives are highly rated as it increases store patronage and

sales. However, logistics and the smooth flow of order fulfilment are regarded as the major challenges in omnichannel retailing (Galipoglu *et al*., 2018). The ability to successfully minimize distribution challenges and beat competitors is an indicator of the existence of strong omnichannel strategies (Riaz *et al*., 2021). Masudin, Hanifah and Handayani (2022) indicate that fulfillment decisions in logistics impact performance and customer satisfaction (Bell *et al*., 2014) and enhancing service quality and retail's brand image (Fisher, Gallino & Xu 2019). The big box retailers such as Gap and Walmart are prioritizing order fulfillment management by integrating channel inventory and resources (Liu, Xiao and Dai, 2023).

Omnichannel order fulfilment has been studied by various scholars in different contexts using various constructs such as: Bimschleger and Patel (2020) examined a omnichannel order fulfilment strategies; Ishfaq *et al*. (2016) examined physical distribution process; Taylor *et al*. (2019) examined order fulfilment strategies in omnichannel retailing; Wollenburg *et al*. (2019) studied customer management processes and Davis-Sramek *et al.* (2020) studied transformation of business model in retail; Fisher *et al*. (2019) examined the importance of rapid delivery; Liu *et al*. (2023) studied return options and order fulfilment in omnichannel retailing and Riaz *et al*. (2021) studied omnichannel customer experience in Pakistan. This study conceptualizes omnichannel order fulfilment in terms of inventory management, delivery modes and return modes that align with the prior research of (Melacini *et al.,* 2018; Wollenburg *et al.,* 2019).

The third dimension is omnichannel service configuration. This is the process by which retailers integrate delivery channels with their service components across channels, and enable consumers to recognize channels differences (Lee *et al.,* 2019). This relates to the range of service components and channels of delivery that are evidenced by transparency and breadth of

channel service configuration (Gao & Huang, 2021; Kopot & Cude, 2021; Lee *et al*., 2019; Nguyen 2021; Pasaribu & Pasaribu, 2021).

The breadth of channel service is the level of freedom customers have in selecting and utilizing various outlets, and types of information on their requirements and levels of satisfaction (Kopot & Cude 2021). The transparency of channel service is the degree of consumers' understanding of accessible channels (Chen *et al.,* 2022), and their variations and ensuring familiarity with all aspects of omnichannel (Pasaribu & Pasaribu, 2021). According to Lee (2019), retailers' failure to seamless integration channels causes uncertainty in product availability, cross-channel service differences and lost sales for customers. The quality of channel service can boost loyalty and customer satisfaction leading to increased revenue and profits (Zhang *et al*., 2019).

The study conceptualized omnichannel service configuration into transparency and breadth of channel service that are consistent with the studies of (Chen *et al*., 2022; Gao & Huang, 2021; Nguyen, 2021; Shen *et al*., 2018). Related studies have been done on omnichannel service configuration such as Ren, Windle and Evers (2023), examined channel transparency and omnichannel retailing; Chen *et al.* (2023) studied on channel integration and consumer responses and Lee *et al.* (2019) examined customer engagement. The growing attention by academia and the retail sector in omnichannel retailing emanates from limited literature on the subject, dynamic consumer behaviour, competition, and enhancement of the performance of retail stores (Mukhopadhyay *et al*., 2023).

1.1.3 Brand Equity

This is a market based intangible asset which explains the relationship between customers, brands and diverse stakeholders (Veloutsou, Christodoulides & de Chernatony, 2013), and expected to drive future cash flows from brand sales (Davcik, Vinhas da Silva & Hair, 2015).

Brand equity is a vital marketing asset, which enhances long-term purchasing behaviour through the creation of differentiated offers (Tasci, 2021; Shariq, 2018; Pham, 2020). According to del Barrio-Garcia, Rodriguez-Lopez & Rojas-Lamorena (2023), brand equity influence brand association, consumers' confidence in decision making, and perceived quality. Brand equity plays a significant role in influencing consumer-purchasing intentions (Hansopaheluwakan, Oey & Setiawan, 2021).

From business perspective, brand equity significantly enhances performance, marketing efficiency, longevity, and carryover potential (Tasci, 2021). Brand equity may increase or decrease the effectiveness of marketing operations compared to what they would be otherwise, hence strong brands lower marketing expenses in the long run (Ferreira, Faria & Gabriel, 2022). Brand equity is a broad construct which has brand evaluation, characteristics of brand consumer behaviour towards brand and affective response dimensions (Veloutsou *et al.*, 2013). The studies on brand equity have been previously examined from the organization and consumer's perspective (Veloutsou *et al*., 2013).

According to Tiwari (2010), brand equity constructs should be similar to attitude strength and lead to biased processing of information and beliefs that influence behaviour. Pham (2020) and Tasci (2021) indicated that the standard brand equity constructs are viewed from the following dimensions of brand awareness, perceived quality, brand loyalty, brand association and proprietary brand assets. Jara and Cliquet (2012) used two dimensions of retail brand image and awareness. Davcik *et al.* (2015) state that measurement of brand equity must incorporate consumer-based measures and financial measures. The customer-based scale has five dimensions; trustworthiness, value, social image, performance, and commitment (Round & Roper, 2017). The study adopted Jara and Cliquet (2012) and Pham (2020) conceptualization

of brand equity, broken down into three constructs of brand image, brand awareness, and brand association.

Swoboda, Weindel and Halsig (2016) indicate that the growth of omnichannel has been rising, and the need to focus on the brand equity of physical and online retail stores is paramount. According to Swoboda, Berg and Foscht (2013), retail brand equity is consumers' perceptions pertaining to a retail store as distinctive, and appealing. These are intangible assets that customers associate with a retail store. Diwan, Gupta and Chaturvedi (2022) state that retail brand equity measurement involves combination of indicators linked to perception and market behavior related measures. However, similar measurements of brand equity are applied in retail brand equity but require validation of the measurement instrument as per the sector under focus (Bougenvile & Ruswanti, 2017).

Brand equity has major role in influencing purchasing interest and trust in brand (Hansopaheluwakan, Oey & Setiawan, 2021). In this study, brand equity is used as a mediator variable intended to assess possible mediating effects between the omnichannel retailing and large scale retail store performance. The following studies examined brand equity: Gonzales-Mansilla, Serra-Cantallops and Berenguer-Contri (2023) on value co-creation and customer satisfaction; Febrian and Vinahapsari (2020) examined purchase intentions and e-commerce and Hansopaheluwakan *et al*. (2021) studied brand trust and purchase intention.

1.1.4 Dynamic Capabilities

The retail industry has evolved into a dynamic and competitive environment with changing consumer behavior. The establishment of competitive edge is determined by capacity of an organization to develop dynamic capabilities (Griffith, Noble & Chen, 2006). The implementation of omnichannel retailing is greatly impacted by firm resources and competence

(Solem *et al*., 2023). The dynamic capabilities are multifaceted resources that empower firms to gain more insights on customer, market dynamics, and be more responsive to environmental changes (Liu & Song, 2023). They utilize current resources systematically while simultaneously generating new knowledge, processes and competencies. This leads to creation of competitive edge and enhancing firm performance in competitive and turbulent operating environments (Bleady, Ali & Ibrahim, 2018).

The dynamic capabilities perspective views organizations as a unique bundle of accumulated resources, converted into capabilities, which generate firm's competitive advantage (Teece, 2023). This involves an organization capacity to adapt and realign resources to suit market opportunities while recognizing unique market segment features and fostering systematic coherence (Teece, 2017). Retailer's dynamic capabilities are derived to develop adaptive strategies and resource deployment in performance management.

Dynamic capabilities are key in digital transformation, understanding the competition in light of rapid advancements in technology and capitalizing on market opportunities (Teece, 2017). Firms are compelled to integrate digital transformation in their existing business operations and processes in creating competitive advantages and enhancing performance (Teece, 2023). The firm performance and new competitive advantages are generated by the organization dynamic capabilities through unique products, innovative knowledge and process (Pezeshkan, Fainshmidt & Markowski, 2016). However, dynamic capabilities impact on performance and competitive advantage depends on whether the new resource configurations are optimal and suitable (Pezeshkan *et al*., 2016).

Omnichannel retailing needs ordinary and dynamic capabilities such as fully integrated retail software systems that consolidate all retail information on the channels. The optimization of

omnichannel retailing implementation requires full integration of existing systems that necessitate strategic implementation processes and organizational changes (Solem *et al*., 2023). Omnichannel retailers must enhance their capabilities on order delivery; return options, inventory and logistics management for them to be effective omnichannel retailers. In omnichannel retailing, internal and external logistics integration capabilities are seen as dynamic capabilities that influence financial performance in a competitive environment (Liu & Song, 2023). The effective integration of supply chain and logistics has significant impact on financial performance, operational efficiency, managerial improvement, and environmental sustainability (Liu & Song, 2023). Barbosa and Casais (2022) suggest that retail firms must restructure to remain competitive by incorporating integrated processes and a customer-centric strategy to meet sales and profit growth goals.

Dynamic capabilities have been incorporated in omnichannel retailing studies in different contexts such as Hossain, Akter and Dwivedi (2020) examined integration quality; Liu and Song (2023) examined logistics integration capability and Eriksson, Norrman and Kembro (2022) investigated transformation in omnichannel logistics. The study used dynamic capabilities as moderating variable that is consistent to the studies of (Singh, Hong & Jagani, (2023); Odwaro, Abongo & Mise, 2022). The study adopted these constructs as conceptualized by Wang, Senaratne and Rafiq (2015) as transformative and absorptive capabilities.

1.1.5 Large Scale Retail Stores in Nairobi City County, Kenya

According to Kotler and Keller (2016), large scale retailing encompasses the high-volume, multi-chain retail formats like hypermarket, supermarkets, and megastores which utilize economies of products and services under one roof. The concept of large scale retailing has been propelled the growth of global retail chains like Walmart, Carrefour, and Tesco in

developed countries like the US, Western Europe, and Japan (Fernie & Sparks, 2019). These retail stores have transformed retailing through adaptation of technology and global supply chain. Large-scale retailing on the regional level has evolved through localizing international retailing structure to fit local situation in form of hybrid models.

Kenya's retail industry format has been greatly shaped by developed economies in Europe, Asia and the U.S. (Chesula & Nkobe, 2018). According to ECDB (2023), Kenya is ranked in the 56 positions in e-commerce market and with projected U.S. 3,527.1 million dollars in market volume by 2027. Kenya's e-commerce sector generates revenue from five major markets: electronics and media (41.8%), fashion (34.3%), toys, hobby and DIY (11.8%), furniture and appliances (7.2%), and food and personal care (4.8%).

In 2022, the retail industry in Kenya had experienced stores expansion by various major retailers like Simbisa Brands, Java House, Naivas, QuickMart, and Optica Limited. However, some retail chains experienced challenges and exited the market such as Tuskys, Choppies and Shoprite (Cytonn, 2022). The retail sector growth has been associated to positive demographics, accessibility of online shopping and e-commerce strategy by retailers (Euromonitor, 2023).

According to Velmurugan and Ramaraj (2014), the retail format can be either store based, or non-store based. The stored-based retailing format is further classified into bases of ownership, product mix, pricing policies, the service level offered and operational structure. The classification under this category includes a department store, specialty store, supermarket, convenience store, hypermarket and factory outlet. The operational structure-based retail format includes the retail chain, franchise, leased store and independent store. The ideal retail format combines assortment, ambience, accessibility, speed, and information for competitiveness (Gauri, Bhatnagar & Howerton, 2021). The study focused on food retails, hypermarkets,

supermarkets, and specialty stores. The stores with an average annual gross sales volume ranging from KSh 100 million – 10 billion and size between 1000 - 10,000 square meters, with more than one chain store and with ability to adopt technology in their operations.

1.2 Statement of the Problem

Kenya's economy grew by 4.0% in third quarter of 2024 as compared to 6.0% in in similar period in 2023. The decreased growth was attributed to a downturn in most economic sectors (KNBS, 2024). The retail and wholesale sector experienced 4.8% growth in GDP, however the sector grapples with operational efficiency, and growth in sales, market share growth and profitability. The retail sector has seen a negative annual rate of growth of 2.4% over the last seven years, and retailers have struggled with sales growth **(**Cyton, 2023). The market has experienced reduced customer growth and increased costs that limited revenue growth and affected operating profit (Simbisa, 2023). The profitability challenge in the sector is evident in the exit of Shoprite, which had incurred operating losses exceeding KSh 3.2 billion (Cytonn, 2023).

Retailers are experiencing challenges in streamlining their supply chains that increase operating costs and decreasing overall efficiency (RETRAK, 2023). The market expansion for retail stores is limited by the virtue of low retail penetration rate of 30% in Kenya **(**Cyton, 2023). The retail sector is characterized as highly competitive and dynamic as new retailers are displacing established ones through aggressive and responsive market strategies (Chesula & Nkobe, 2018). Some retail stores have withdrawn from Kenyan market such as Choppies, Shoprite and others are scaling down (Euromonitor, 2023). Even though omnichannel retailing offers immense benefits to customers and retailers (Akturk *et al*., 2018). Omnichannel retailers are facing a myriad of challenges such as the complexity and smooth flow of order fulfilment and this have

reduced the profit margins (Eriksson, Norrman & Kembro, 2022; Riaz *et al*., 2021). Lee *et al*. (2019) indicate that the difficulties of engaging in and understanding the expectations of customers across channels cost sales for the organization. Implementation of omnichannel retailing information systems presents challenges due to integration complexity and high cost (Akturk *et al*., 2018; Reguraman & Subbiah, 2019).

Despite the recognition of the contribution of omnichannel retailing as a driver in retail performance. There are few studies on retail performance as most have focused on customers' perspective and from developed nations context, such as (Chen *et al.*, 2022; Gao & Huang ,2021; Lazaris *et al*., 2021; Le and Nguyen-Le ,2020; Mukhopadhyay *et al.*, 2023; Rodriguez-Torrico, Apadula & Cabezudo, 2020; Ryu, 2019; Shen *et al*., 2018; Xu & Jackson, 2019). The study explored omnichannel retailing from retail performance perspective. Moreover, the omnichannel retailing literature lacks a unified operationalization of variable with scholars using a variety of variables making it difficult to compare results across studies (Saghiri & Mirzabeiki, 2021; Matlala, et al. 2022). Thus, the need for developing standardized measurement frameworks that capture the multidimensional nature of omnichannel retailing.

Several studies have used different research methodologies, for example, a cross-sectional designs and descriptive data analysis (Matlala, *et al*. 2022; Natarajan, Veera Raghavan & Jayapal, 2023; Nguyen, 2021; Wang & Somogyi, 2019) others have used longitudinal designs (Davis-Sramek *et al*., 2020). Examining and measurement of models using PLS-SEM structural models (Bougenvile & Ruswanti, 2017; Gao and Huang, 2021; Li and Gong, 2022; Riaz *et al.*, 2021; Zhang *et al.*, 2018), and use of logit model (Dominici *et al*., 2021). Majority of the studies relied on self-reported perceptual data, which limits causal inference and is prone to common-method bias (Matlala, et al. 2022; Natarajan, et al. 2023). The empirical review shows that few

studies employed longitudinal or quasi-experimental designs capable of capturing temporal dynamics, such as how brand equity evolves as omnichannel systems mature (Gao & Huang, 2021; Li & Gong, 2022).

The need to contextualize the study from Kenya's perspective and incorporate the large scale retail store performance with different methodological approach, added more insights into scholarly world. This adopted a cross-sectional design coupled with a descriptive and explanatory research design. The empirical model was applied to assess relationship between omnichannel retailing and large scale retail stores performance. The model was moderated by dynamic capabilities and mediated by brand equity through the use multiple linear regression model. Thus, more studies are needed on omnichannel retailing and performance (Saghiri & Mirzabeiki, 2021).

1.3 Objective of the Study

1.3.1 General Objective

To examine the effects of omnichannel retailing on performance of large scale retail stores in Nairobi City County, Kenya.

1.3 2 Specific Objectives

i. To determine the effect of omnichannel integration on performance of large scale retail stores in Nairobi City County, Kenya.
ii. To establish the effect of omnichannel order fulfilment on performance of large scale retail stores in Nairobi City County, Kenya.
iii. To examine the effect of omnichannel service configuration on performance of large scale retail stores in Nairobi City County, Kenya.

iv. To assess the moderating effect of dynamic capabilities on relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.

v. To evaluate the mediating effect of brand equity on relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.

1.4 Research Hypotheses

H_{01}. Omnichannel integration has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.

H_{02}. Omnichannel order fulfilment has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.

H_{03}. Omnichannel service configuration has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.

H_{04}. Dynamic capabilities have no significant moderating effect on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.

H_{05}. Brand equity has no significant mediating effect on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.

1.5 Significance of the Study

The retailing industry in Kenya is dynamic, and retailers are facing myriads of challenges that are affecting performance. The challenges such as declining profits, sales, and market share, and operational inefficiency can be understood better through the findings. This study examined omnichannel retailing and its effects on performance of retail stores. Thus, understanding the

correlation between omnichannel retailing and performance helps in the formulation of marketing strategies and business models that drive growth in the business. The research findings will benefit various stakeholders in the retail industry, especially the stores managers and owners, suppliers of information technology infrastructures and potential investors in the sector.

The study advanced the existing knowledge on retailing by establishing the impact of omnichannel retailing on large scale retail stores performance by using omnichannel integration, omnichannel order fulfilment and omnichannel service configuration constructs. The previous studies assumed a linear relationship between omnichannel retailing and other variables. This study measured both direct and indirect effects by incorporating dynamic capabilities and brand equity as moderating and mediating variable respectively. The results facilitated in conceptualization of omnichannel retailing and retail performance constructs, addressing gaps identified in the conceptual and empirical literatures. The study findings and recommendations were of value to scholars intending to extend the knowledge in marketing.

1.6 Scope of the Study

This study established omnichannel retailing effects on performance of large scale retail stores within Nairobi City County. This study specifically examined the effects of omnichannel integration, omnichannel order fulfilment and omnichannel service configuration. The determination of effects of dynamic capabilities and brand equity as moderating and mediating variables were established respectively. The performance indicators were in terms of operational efficiency and growth in profitability, market share, and sales. The theories underpinning the study were; resource based view, UTAUT, social exchange, double jeopardy, and dynamic capabilities. The study focused on 22 large scale retail stores within Nairobi City

County and respondents came from heads of department in marketing, finance, information technology and operations. The research activities, including data collection and analysis, were conducted from September to December 2024 using a cross-sectional research methodology.

1.7 Limitations of the Study

The research challenges were in the acquisition of the intended literature on omnichannel retailing in developing nations and particularly from Kenyan context. The extensive literature and empirical review were conducted using literature accessed from developed nations, with few of the literature accessed from the region. The information on performance of large scale retail stores was sensitive, thus some managers were unwilling to share this information without assurances of data privacy. The researcher provided a consent letter from the learning institution and a permit from NACOSTI to the respondents for the authenticity purpose. The researcher reassured the retail store managers that the findings were to be utilized for solely academic purposes and adherence to all ethical standards was observed.

1.8 Organization of the Study

This study has five inter-related chapters. The first chapter covers the overview of the study, statement of the problem, the research objectives, and hypotheses. The section also highlights the significance, scope and the limitations of study. The second chapter provides a review of literature, highlighting the research gaps and concluding with a conceptual framework. The research methodology is addressed in the third chapter. The section highlights the philosophy that guided the study, the research design, empirical models, target population and research instruments. Additionally, sampling design, operationalization and measurement, diagnostic test, data analysis and ethics were included in the study. The fourth chapter focuses on study

findings and discussions, while chapter five delves into conclusion, summary, policy implication, recommendations, and suggestion for further studies on the topic.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The review of literature associated with omnichannel retailing and performance of large scale retail stores are discussed under this section. The section also highlights key theories anchoring the study variables. The section highlights: the reviewed empirical literature summary and identified research gaps relating to omnichannel retailing.

2.2 Theoretical Literature Review

The theories underpinning this study include social exchange, dynamic capabilities, Unified Theory of Acceptance and Use of Technology, and double jeopardy. The resource based view anchors the study as it explains how omnichannel retailing enhances the performance of retail stores.

2.2.1 Resources Based View (RBV)

Wernerfelt developed this theory in 1984, while Jay Barney refined the theory in 1991. According to theory, organizations are collections of resources that are tangible and intangible assets (D'Oria, Crook & Wright, 2021). The theory links organization resources and capabilities to superior financial performance. The theory provides a guide on how an organization may attain superior performance by considering three fundamental elements of firm resources, competitive advantage and sustainable competitive advantage (Ferreira & Ferreira, 2024). Firm resources are assets, capabilities, knowledge, or organizational processes that companies use to develop and execute strategies, which enhance their efficiency and effectiveness. The tangible assets could be technological infrastructure, inventory, financial capital, and logistics while

intangible assets could be brand equity, human structural and relational capital (Paulus & Murdapa, 2017).

Competitive advantage is value creation approaches that are implemented by an organization that cannot be duplicated by competitors. Lastly, sustainable competitive advantages are unique value-creation activities that are hard to replicate and prevent competitors from gaining the benefits of these advantages (Ferreira & Ferreira, 2024). The organization capabilities are intricate combination of unrivalled skills and competence, which allow firms to manage their operation and effectively utilize resources (Song, Song & Sun, 2019). The deployment and leveraging of unique organization's capabilities and resources provide a competitive edge that drives firm performance

The theory demonstrates how a firm may have a competitive edge over competitors by enhancing resource bundle management and indicating a robust relationship between information systems capabilities, making of decision, and performance (Moderno, Braz & Nascimento, 2024). The theory focuses on strategic resources that are different from general resources, which are regarded as inimitable, valuable, non-replaceable and rare (Helfat, Kaul & Singh, 2023). Effective utilization of resources and capabilities enabled the retailers to overcome the challenges faced by retailers such as customer retention and sales decline (RETRAK, 2020). Moreover, the difficulties of engaging shoppers in all available channels (Lee *et al.*, 2019). The implementation of effective information systems (Akturk *et al*., 2018), leads to seamless flow of order fulfilment (Riaz *et al.*, 2021).

The theory highlights that firms that use resources effectively have a higher chance of enhanced performance. Helfat *et al.* (2023) states that the theory has many opportunities for future research in digital transformation, sustainability and distributed organization. The theory has

also been used in omnichannel retailing through utilization various variables. Mrutzek-Hartmann, Yumurtac and Kuhling (2022) examined omnichannel retailing resources and capabilities; Oha *et al.* (2012) examined retail channel integration and firm performance, and Song *et al*. (2019) studied supply chain integration.

The RBV offers theoretical framework for analyzing performance in omnichannel retailing. It is therefore most appropriate for anchoring firm performance variable as it explains how a firm can attain and sustain firm performance (Helfat *et al*., 2023). The RBV is extensively applied in understanding the link between organization capabilities and how they affect performance (Dutta, Narashiman & Nath, 2014). Retailers, who leverage omnichannel technological infrastructure into their retailing model, have an edge over their competitors. However, the theory has been criticized as focusing mainly on the internal environment ignoring the external factors. This may have an adverse effect on performance and inadequacy in explaining the causality effects of resources and performance (D'Oria *et al*., 2021 & Ferreira & Ferreira, 2024).

2.2.2 Social Exchange Theory (SET)

Homans developed SET theory in 1961, while Blau refined it in 1964, and focus on utilitarianism and behaviourism (Cook, Cheshire & Nakagawa, 2013). According to Lee *et al*. (2019), SET theory is the most often utilized theoretical framework for examining firm-customer relationships. The theory core tenets are interaction, equity and reciprocity (Chen *et al*., 2022). According to the interactive principle, consumer perception of value is created through interactions with retailers and influences their subsequent behaviour. The principle of reciprocity argues that individuals who gain in social interaction are psychologically obligated to reciprocate the same with positive behaviour that benefits others. It has three fundamental

dimensions that are; transactional social behaviour, the tendency of individuals to feel obligated after received rewards, and the pursuit of maximum rewards (Stafford & Kuiper, 2021).

The usefulness of SET theory in the study is its focus on the social relations formation emanating from interaction between omnichannel retailers and customers. This interaction occurs on multiple channel touchpoints across the purchase journey. Customers feel obligated to retailers when they perceive benefits and desire to reciprocate through purchase. The retailers gain from increased sales, customer repurchase, patronage and loyalty from the customers. The SET theory has been adopted in previous studies on omnichannel retailing. Li, Tan, and Gong (2023) omnichannel integration; Chen *et al*. (2022) channel integration quality and Lee *et al*. (2019) examined customer engagement. Social exchange theory's goal is behavior prediction and explanation through identifying the variables that influence choices. It explains how retailers adopt omnichannel retailing leading to beneficial interaction between retailer and consumer that culminates in increased firm performance.

The study is anchored by SET as it elaborates how omnichannel retailing provides efficiency and satisfaction that culminates to consumer purchase. This leads to an increase in profit, sales, and market share for the retailer. The social exchange between omnichannel retailers and customers encompasses building relationships that have reciprocal benefits for all parties (Li *et al*., 2023). This is achieved through the configuration of omnichannel retailing variables that are omnichannel integration, omnichannel order fulfilment and omnichannel service configuration in the provision of satisfaction to customers and driving retail performance. The SET theory suggests that consumer relationships with omnichannel retailers are shaped by their perception of their investment and potential gains from exchanges (Lee *et al.,* 2019). However,

social exchange theory has a shortcoming that restricts insufficient theoretical accuracy (Cropanzano, Anthony & Hall, 2017).

2.2.3 Dynamic Capabilities Theory

This was developed in 1997 by David Teece, Amy Shuen and Gary Pisan (Teece, 2017). The theory evolved from RBV theory, which compensated for its limitation by explaining competitive advantages and improved performance in volatile environment (Bleady, Ali & Ibrahim, 2018). The dynamic capabilities constitute firm capacity to effectively integrate, develop, and reconfiguration of competencies in addressing dynamism in business environment (Teece, 2023). The theory illustrates how ordinary capabilities within the firm can be modified to adjust to the dynamic and unpredictable environment for business transformation (Pezeshkan *et al*., 2016).

The theory is increasingly used in explaining the transformation in the retailing sector that has been characterized by explosive growth, changing behaviour and expectations of consumers and digital technological advancement (Eriksson, Norrman & Kembro, 2022). The theory provides a comprehensive framework for explaining dynamic capabilities in omnichannel retailing context. The relevance of the theory in the study as it offers a theoretical framework for explaining dynamic capabilities as a moderating variable. The theory emphasizes the need to integrate channels and organization capabilities such as inventory management, robust systems and processes in value creation and enhancing performance (Pezeshkan *et al*., 2016). Retailers can anticipate emerging trends and restructure their capabilities to improve customer experience, operational efficiency and performance.

Omnichannel retailing studies have extensively used dynamic capabilities theory. Liu and Song (2023) examined logistics integration capability and performance; Solem *et al*. (2023) studied

dynamic capabilities in omnichannel retailing; Eriksson, Norrman and Kembro (2022) examined transformation in omnichannel logistics; Hossain *et al*. (2020) studied on re-conceptualizing of integration quality. Dynamic capabilities theory has received criticism due to its underlying limitations. Bleady, Ali and Ibrahim (2018) indicate that it is challenging to measure the dynamic capabilities since they are complex and intangible constructs. Moreover, the theory focuses on the internal aspects of organizations and may not address the influence of the external environment.

2.2.4 Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh, Morris and Davis in 2003 develop the theory, and comprise four components: social influence, enabling condition, performance and effort expectancy (Misra, Mahajan & Singh, 2020). The model integrates key components from previously established theories related to technology acceptance and consumer behaviour (Gunasinghe, Hamid & Azam, 2020). UTAUT is a widely used model that effectively measures users' adoption and utilization of new technologies in individual and organizational settings (Sultana, Chowdhury and Hague, 2023). The model covers a wide range of applications, integrations, and extensions (Erjavec & Manfred, 2022).

This model provides theoretical context in explaining the adoption of omnichannel retailing which is supported by information technology, and the interaction between retailers and customers (Singla, Tomas-Aguilar & Salazar-Gonzales, 2022). The theory is considered a robust model to explain acceptance of new technology by user (Bellet & Banet, 2023). The model supports the omnichannel retailing variable and utilizes its constructs. Thus, the usage and customer acceptance of omnichannel retailing has an impact on performance of omnichannel retailers. The exogenous constructs of the theory are set as major antecedents of

omnichannel retailing acceptance (Nguyen & Borusiak, 2021). The usage and adoption of new technology depended on the user's intentions and exogenous constructs (Bellet & Banet, 2023). Performance expectancy within framework of omnichannel retailing is customers' perceptions of benefits of using mobile apps, online channels and physical channels along their shopping journey. Retailers can leverage technology to ensure seamless integration across channels, which optimizes customers' shopping experience. The performance expectancy of the model helps to illustrate how the system component of omnichannel retailing improves the efficiency of customers leading to increased purchases and sales (Singh, Kumar & Mahlawat, 2023). Performance expectancy positively influences usage of omnichannel retailing platform (Nguyen & Borusiak, 2021).

The effort expectancy component of the UTAUT model can be contextualized in omnichannel retailing as customer perception of ease and convenience (Singh *et al.*, 2023). This necessitates development of integrated and user-friendly omnichannel retailing system that guarantees seamless operation across all channels. Facilitating conditions implies the resources and technical support that enable shoppers to use omnichannel retailing. The social influence component illustrates how peer pressure and social proof shape attitudes and behaviour about omnichannel retailing (Nguyen & Borusiak, 2021).

The model has been used in different contexts in omnichannel retailing. Nguyen and Borusiak (2021) examined omnichannel technology acceptance. Kopot and Cude (2021) examined channel depth. Matlala, Shumba and Shambare (2022) studied consumers' intention to use omnichannel. Kazancoglu and Aydin (2018) investigated consumers' purchases. Singla, Mukthar and Salazar-Gonzales (2022) examined purchase intention. Erjavec and Manfreda (2022) studied on extending the UTAUT model. Misra, Mahajan and Singh (2020) examined

adoption of electronic marketplace and Juaneda-Ayensa *et al*. (2016) examined customer behavior omnichannel retailing. The theory demonstration variation of 70% in usage intention and 50% of usage of technology (Sultana, Chowdhury & Haque, 2023). The model has been criticized in various studies. According to Alkhwaldi (2023), the UTAUT model may not be universally applicable, particularly in explaining technology adoption in developing countries, causing a problem of limited generalizability.

2.2.5 The Double Jeopardy Theory

This theory was proposed by William McPhee in 1963 and further refined by Andrew Ehrenberg (Umit Kucuk, 2008). According to the theory, powerful brands with high brand equity have multiple advantages over weak brands. The theory developed a relationship between market share and customer behaviour. The theory asserts that small market share brands have a disadvantage over their competitors since they have fewer loyal buyers and less frequent purchases (Buoye, Nejad & Allsopp, 2016). In addition, firms with popular brands and large market share tend to have more purchases from buyers from weak brands in the market (Umit Kucuk, 2008). This consumer behaviour trend of purchasing among the brands is driven by habit and convenience (Wilson & Winchester, 2019).

Double jeopardy has been observed across multiple product categories, retail channels, and media outlets in various geographical markets (Bandyopadhyay, Gupta & Dube, 2005; Rogers, Morgan & Beynon, 2017). The proponents of the double jeopardy theory demonstrate the connection between customers' intentions, attitudes, and penetration level of a brand (Buoye *et al*., 2016). The theory focuses on market penetration, specifically repeat patronage and customer loyalty as drivers for increased market penetration (Rogers *et al*., 2017). The theory has been used in omnichannel retailing; Higuet and Remaud (2023) examined wine buyers'

behaviour; Umit Kucuk (2008) studied double jeopardy patterns and Chowdhury, Barker and Lockshin (2022) examined Dirichlet model. The choice of the double jeopardy theory in the study is to support the choice large scale brand equity as a mediating variable.

The theory has been criticized for confusing correlation with causation, as brands with higher market share have high loyalty, this is unclear whether the relationship between market share and loyalty is causal or otherwise (Umit Kucuk, 2008). Secondly, the theory oversimplifies the association of market share and customer loyalty in assuming a direct correlation. However, other variables such as marketing initiatives, brand quality, and customer satisfaction, may influence loyalty (Wilson & Winchester, 2019).

2.3 Empirical Literature Review

This section examines the literature on study variables with view to understanding the gaps in research. Conceptual framework is included to illustrate the relationship involving omnichannel retailing, firm performance, brand equity and dynamic capabilities variables.

2.3.1 Omnichannel Integration and Firm Performance

Lazaris *et al*. (2021) investigated omnichannel integration effects. The study intended to establish how integration of retail channels impacts performance outcomes in UK. The study conducted laboratory and experimental tests on 223 mechanical Turk workers who were faking to buy a 65-inch smart TV model from three top brands. According to the results, omnichannel integration was mediated by low experience that depends on perception of channel complementarity by consumers. According to the study, an increase in omnichannel integration leads to channel synergies with favourable effects on loyalty intention and customer satisfaction. This study shows that examining flow experiences in physical and online stores within an omnichannel retail environment can improve understanding and knowledge of

consumer behaviour. The study had methodological gaps of conducting experiments and laboratory studies only with expensive electronic products. The current study used various product categories available in different stores. They used both explanatory and descriptive research design to overcome the inherent limitations of laboratory and experimental design of artificiality of a controlled environment. The study focused on performance of stores and used brand equity and dynamic capabilities as mediating and moderating variables.

Gao and Huang (2021) examined channel integration quality. The aim was to determine the effects of channel integration on loyalty of customers through engagement of customers and receptiveness to relationship programs. The other objective was to validate the existence of the relationship in omnichannel retailing among receptiveness to relationship program and customer engagement. The questionnaires were used in data collection and 378 respondents who used Hema's offline and online platforms in China. The PLS-SEM model was utilized in assessing structural model. The results indicated that omnichannel integration quality positively impacted and receptiveness to relationship program and engagement of customers, which had an overall impact on customer loyalty. The study was limited to fresh food supermarket in China that would restrict generalization to other product categories retail formats and nations. This study used different product categories in performance measurement of retail stores.

Nguyen (2021) examined channel integration quality in Vietnam. The objective was to examine channel integration effects on customer experience and intentions to patronage. The researcher employed a sample size of 351 participants from four major omnichannel retailers from Vietnam. The hypotheses testing was done using PLS-SEM model. The research findings revealed that quality of channel integration contributed greatly to customer shopping experience. The content consistency dimension had the greatest impact on customer service and

channel service choice breadth followed. These findings indicate that channel selection freedom and content delivery consistency across all channels are essential for optimizing omnichannel retailing. The study had contextual gap and the limited generalizability as it focused on Vietnam. The study utilized a quantitative survey method with self-administered questionnaires. To overcome the methodological gap, qualitative research was used where questionnaires were explained before administering them to the respondent. The study measured retail performance from managers' perspective.

Li and Gong (2022) studied omnichannel integration in perceived fluency and flow. The objective was to investigate how omnichannel integration boosts customer engagement through perception enhancement of flow and fluency during customer purchasing journey. The sample of 227 was collected from online survey data through a crowdsourcing platform. The study used 25 famous brands in apparel and technology sectors that provide omnichannel services. The hypotheses were tested using PLS-SEM model. The study conceptualized omnichannel integration into three levels of transactional, informational and relational integration.

The finding indicates that all these levels positively influenced perceived fluency, which in turn generated customer engagement in term of purchase, repurchase, referral and knowledge in omnichannel retailing. Customer engagement was facilitated by perceived flow that was positively correlated with transactional and relational integration variables. However, there was no significant relation between informational integration and the relationship between perceived flow and informational integration; this may be explained by the mediation effects of perceived fluency. The study's limitation of using famous brands may have led to low construct variance due to respondents' tendency bias in scoring due to high brand affinity for omnichannel brands. This research overcame the conceptual gap by using different categories of retail stores with

various brands. In addition, the use of different constructs under omnichannel retailing, inclusion of brand equity and dynamic capabilities variables overcame the conceptual gap.

Zhang *et al*. (2018) examined relationship between consumer responses and omnichannel integration. The focus was to analyze the responses of consumers through incorporating empowerment of consumers as a mediator in omnichannel integration. The study used the stimulus-organism-response framework. A survey was done on 12 major omnichannel retailers in Beijing and Tianjin in China and sample of 155 was used. The study used PLS-SEM method in testing the hypothesis and the model supported all proposed hypotheses.

The study revealed that omnichannel integration promotes consumer empowerment, which boosts consumer satisfaction, trust, and increased consumer intentions to patronage. The study had limited generalizability as it's focused on omnichannel stores in China dealing with consumer electronic products, which significantly influence omnichannel behaviour. Finally, culture influence on omnichannel retailing behaviour, as China exhibits unique culture from other nations, thus generalizability of our research findings would be challenging. To overcome the conceptual gap of study, the current research used various theories like resource-based view, dynamic capabilities instead of stimulus organism response framework. The limitation of using consumer perception was overcome by using retail managers in demonstrating the channel integration on firm performance. Brand equity was used as mediating variable to overcome the conceptual gap of using customer empowerment.

2.3.2 Omnichannel Order Fulfilment and Firm Performance

Fisher *et al*. (2019) examined rapid delivery. The study investigated the impact of rapid delivery in U.S. apparel omnichannel retailing. The study used a quasi-experiment methodology focusing on establishment of new apparel distribution center in U.S. The DiD regression model

was used to evaluate impact of faster delivery and revealed a 1.45% increase in online sales per day. This led to decrease in delivery time from a standard one-week period. The finding indicates sales growth from delivery speed improvement by the retailer. According to sales projections, faster delivery increased physical stores sales by 1.82% while sales in online stores grew by 3.7% in the 50 weeks after the launch of the new distribution center. The effects were more significant on stores that had delivery time reduction and estimates were U.S. 3.8 million dollars for online and U.S. 8.6 million dollars for physical stores.

The study states that the investment decisions on the improvement of the distribution capabilities emanate from cross-channel interaction dynamics and the need for faster order fulfilment. The study had contextual gaps as it was limited in its ability to generalize the finding to other contexts. Lastly, service quality dimensions in omnichannel retailing such as store accessibility, order accuracy and ease of payment were disregarded. The current study incorporated brand equity and dynamic capabilities variables to overcome the conceptual gap. The methodological gap was addressed by use of explanatory and descriptive research design to address the challenges of quasi-experiment.

Liu *et al*. (2023) examined order fulfilment and return options in omnichannel retailing. The study explored the influence of BORS, and BOPS on consumer behaviour and profit. The study developed a stylized model that included product match uncertainty, cost on offline search and cross-selling impact on customers' stores visit. The study found the channel and price impacts of implementing two order fulfilment strategies and identified the specific circumstances where omnichannel retailer can gain from using the both order delivery options. The retailer should simultaneously implement both strategies to maximize their complementary effects. The study had the limitation of making various assumptions regarding the model's tractability and the

delivery of critical insights. In addressing issues of methodological gap, the current study collected data from retailers to reduce assumptions and analyze how order fulfilment impacts sales and profit.

Riaz *et al*. (2021) studied omnichannel customer experience in Pakistan. The objective was to establish omnichannel retailing effect on evolving retailing environment and experience of customer. Omnichannel retailing constructs used were integration, order fulfilment, usability and seamlessness. The seamlessness construct had a significant direct and indirect contributor among the four omnichannel retailing components, followed by omnichannel integration and usability dimension. The findings of PLS-SEM model demonstrated a significant mediating effect for omnichannel customer behaviour. The findings indicate that all constructs of omnichannel retailing had positive significant effects on customer experience.

The study had some limitations on external information validity as the respondents shared their previous shopping experiences in responding to survey questions that may affect the research findings. The study used Pakistan customers, and this limited on generalizability. To overcome the methodological gap, the current study collected data from retail managers and did not rely on perception or past experience. Addressing the conceptual gap, this study emphasized the performance of retail stores and incorporated brand equity as mediating variable and dynamic capabilities as moderating variables.

Wollenburg *et al*. (2018) studied fulfilment related options. The research aim was to identify fulfilment-related customer management opportunities in retailers' multiple channels, and channel interdependencies. The study used an exploratory study from 25 fashion omnichannel retailers from 18 international in Germany. The study found that directing customers across different channels might stimulate omnichannel shopping behaviour and purchase intentions.

Omnichannel retailers can enhance revenue by providing accurate product availability information on their online platforms; encourage store visits and in-store product returns. The study also revealed that online availability checks for shop inventory facilitate online product research and enhance customer management.

The study had limitations in conducting empirical research in Germany with international retailers. This would lead to bias and a comparative study in different context would generate different results. The study failed to quantify customer management implementation and ignored product information search before the purchasing process. To overcome these limitations, the current study incorporated large retail stores in various categories such as food retail, specialty and hypermarket. This study adopted explanatory approach to overcome the inherent limitation of the exploratory design of inconclusive findings.

Davis-Sramek *et al*. (2020) examined transformation in retail business. The study examined the structural and strategic changes in U.S. omnichannel retail supply chains, focusing on evolution on order fulfilment process. The study used process theory to explain the transformation of retail business model. A longitudinal multi-case research methodology through a case study approach on six large U.S. retailers over 10 years was used. The application of sequencing and justification of various strategic shifts in order fulfilment strategies.

The study offers insight into how the transition occurs, the rate that occurs across different retailers and the reason why the rate of transition differs across omnichannel retailers. The results indicate that these methods depend on retailers' capacities and supply chain configurations. The study limitation lies in the inclusion of only six retailers, which makes it hard to generalize to smaller stores. The other limitation of the study was that the goal of not generalizing to a broader population but to expand analytical generalizability to understand

omnichannel retailing. As retailing environment is dynamic, a cross-sectional design was adopted to address the difficulties of longitudinal methods of changes over time.

2.3.3 Omnichannel Service Configuration and Firm Performance

Ren *et al*. (2023) examined channel transparency. The purpose was to examine the impact of information sharing approach on firm and specific channel sales on a major North American retailer. The quasi-field experimental designs and DiD regression model were used. It was revealed that this approach effectively boosts overall sales from shoppers who live within the retail store's territory. The information-sharing policy was found to increase overall sales of customers residing in the territory of the store. The strategy motivates switching across the channels, decreases lost revenue and negative brand experience which leads to an increase in overall retail sales.

The information-sharing approach leads to a percentage increase in online customers using rapid shipping and rate of product return. There are several limitations on the assumption of accurate inventory records, and prompt shelf replenishment, however this may be inaccurate. The findings are only relevant to products categories where the new information is needed before store visits. The current study used cross-sectional research methodology using 22 large scale retail stores. This study combined descriptive and explanatory research design. The study included major product categories that do not rely on new information before purchase.

Quach, Moudry and Quach (2022) studied service integration and customer experience. The aim was to assess service transparency and consistency effects on customer loyalty and experience. The research used an online survey with 786 respondents and hypotheses testing were done through structural equation model. The finding stated that service transparency and consistency have substantial effect on flow and perceived risk, which is positively correlated to

customer loyalty. The study used hyperbolic discounting theory and flow theory. The study had limitations of using self-reported data from previous Walmart experience and this would affect accuracy due to recalling difficulties. The study had conceptual limitations as it focused on one variable under channel service configuration. The current study used two constructs, which are service transparency and breadth of channel service configuration and include a moderating variable of brand equity to overcome conceptual gap. The study used diverse theories such as UTAUT model, RBV, dynamic capabilities, SET and double jeopardy theory.

Lee *et al*. (2019) conducted a study on customer engagement, with objective to understand its causes and effects in omnichannel retailing. The study utilized structural equation modelling in analyzing customers' data from Apple and Kroger brands, with samples of 269 and 221 respectively. The finding showed that all dimensions of omnichannel integration had a positive effect on engagement of customers. This consequently generated favorable word of mouth and intention to repurchase. Channel integration responded differently with various product categories in terms of driving engagement. Integrated interactions significantly enhanced customer engagement for highly involving products like Apple relative to low involving categories. The study employed survey methodology, which had inherent, bias such as confirmation prompted by the recalling of past experiences. This study used a survey method focusing on the performance of retail stores from the managers' perspectives. The study also incorporated UTAUT and resource based view theories.

Gao *et al.* (2021) examined how channel characteristic moderated customer experience incongruence in China. The channel characteristic variables used were convenience, transparency and seamlessness. An online survey was conducted using a valid sample of 440. The findings indicate that inconsistency in customer experience had negative effects on

customer retention, thus the need for omnichannel retailers to build consistent shopping experiences. This is achieved by increasing channel transparency through diverging channels and creating awareness of services available on those channels.

According to the findings, convenience of channel and seamlessness can reduce the negative effects of inconsistency in customer experience. The omnichannel retailers should embark on providing an easier shopping process through technology to increase the fluidity of switching channels. The study had limitations of generalizability as the sample consisted of respondents from China. This study incorporated a moderator variable, which is dynamic capabilities in measuring the relationship between omnichannel retailing and retail performance. The study drew from the social exchange theory, dynamic capabilities and UTAUT theory.

Chen *et al*. (2023) examined impact of channel integration and customer perception in China and Taiwan. The findings indicate that configuration of channel service positively affected customer experience and engagement. Moreover, the study indicated that configuration of channel service had positive effects on customer empowerment and experience quality. The scope of the study was in Taipei and Shenzhen and thus limited generalization to other regions. The use of clothing and shoes as target products, which are, categorized as low involvement categories; this may limit application of the finding to high involvement products. The sample size of 88 retail store heads of department was used, which focused on various product categories. The study adopted dynamic capabilities, brand equity as moderating, and mediating variables respectively.

Mukhopadhya *et al*. (2023) studied consumer patronage and culture. The aim was to establish omnichannel integration quality impact on patronage of consumers. The study synthesized 41 previous publications, which had 44 studies using a meta-analytic structural equation model.

The finding indicates that omnichannel integration had a positive impact on loyalty and buying intention of consumers. The study had the limitation of conducting fewer studies and consideration of culture as the moderating effect. Thus, ignoring other variables such as product types on impact on omnichannel retailing behaviour could have effects on finding. The current study incorporated brand equity as mediator, and dynamic capabilities as moderator variables between omnichannel retailing and performance.

2.3.4 Omnichannel Retailing, Dynamic Capabilities and Firm Performance

Solem *et al*. (2023) examined dynamic capabilities in omnichannel retailing. The study investigated the dynamic capabilities and actions required in realizing omnichannel retailing. The study utilized qualitative exploratory research methodology and sample of 30 university students undertaking retail management courses were used. The research findings outlined the dynamic capabilities required were technology development, customer experience optimization, collaboration, and value-based omnichannel retailing system. The study had limitations on research methodology as 30 respondents were used as sample size. The sample size of 88 was used in the study, as a larger sample would yield better results

Liu and Song (2023) investigated logistics integration capability and performance enhancement. The purpose was to assess the correlation of integration of supply-chain capabilities and financial performance in omnichannel retailing, using dynamic capabilities approach. In the study, 230 omnichannel retailer from china were used. The conceptual model was analyzed by regression and factor analysis and utilizing an exploratory approach. The results showed that relationship existed between internal and external logistics integration capacity, which had positive effects on supply chain integration. The relationships indicated a positive and a significant effect on financial performance. However, the limitation of was on

measuring performance using one dimension of financial indicators ignoring the long-term impacts of omnichannel retailing strategies of retailers. The study examined the logistics integration capabilities using a component of supply chain ignoring other factors that may influence it. The current study included brand equity as a mediating variable and adopted the explanatory research design.

Oh *et al*. (2012) examined channel integration and organization performance. It determined how the integration of channel operations for retail sales had an impact on the usage of information technology by retail firms. The finding indicates that channel integration coupled with information technology could enhance retailer's efficiency that enhances overall performance. The finding offers empirical evidence supporting the channel integration positive impact on firm performance in omnichannel retailing. Descriptive statistics and data were gathered through surveying 125 retailers in Singapore. The PLS-SEM model was utilized in data analysis. The study limitations emanated from a single informant source from each firm. This created a potential bias and limited the dataset from Singapore retail firms this creating a problem of generalization of results. The current study incorporated dynamic capabilities and brand equity within the firm to understand the effect on performance.

Eriksson *et al*. (2022) studied omnichannel logistics and dynamic capabilities. The study investigated the transformation of grocery retailers and success aspects of transforming omnichannel retailing logistics. The study used qualitative methods through a multi-case-research approach with three grocery retailers. The findings indicated that components of dynamic capabilities were key on allowing transformation in omnichannel retailing. The study was limited on external validity as it used three cases from one market while analyzing additional cases from other markets could have improved results. The current study used large

scale retail stores across sectors which are food retail, hypermarkets and specialty stores. The use of a multi-case design makes generalization of findings to a wider scope difficult hence; this study used more samples with a quantitative and qualitative approach.

2.3.5 Omnichannel Retailing, Brand Equity and Firm Performance

Swoboda *et al.* (2016) conducted four studies in Germany on testing hypotheses in retail brand equity predictors on electronic, fashion, grocery, and DIY retailing. The study aimed to investigate intentional loyalty in retail brand equity from consumer perspective. The samples size of 2112 respondents from fashion, DIY, grocery and electronic were used. The research methodologies used were cross-sectional design, quota sampling procedure and multi-group SEM model. The study found a high correlation between brand equity and loyalty of consumer across the retail sectors. The finding emphasized the significance of retail attributes in the relationship. According to the findings, brand equity attributes differ across the four retailing types with service perception, price, assortment, and service and layout perception being key predictors. The study had limitations of using quota sample based on census and combination of retailers' evaluation in each category limited study's scope. This study used census methods and incorporated all large scale stores in food, retail, hypermarket and specialty stores to capture the difference in categories in addressing gaps.

Jara and Cliquet (2012) examined brand equity in retail and conceptualized it into retail brand awareness and image. The study used three retailers; Carrefour, ELeclerc and Intermarche, with a random sample of 504 consumers who were quantitatively surveyed in addition, 54 consumers were interviewed in three different locations that correspond with each retailer. The study used qualitative research methodology, a confirmatory analysis and testing of models using PLS-SEM model. The finding concluded that retail brand awareness significantly influences the

choice of retail brand and purchase intention. The retail brand image significantly influenced consumers' response on their intention to purchase and choice of retail brand. The study had an external validity challenge due to its choice of only three stores, corresponding to three separate hypermarkets in France. This study focused on different product categories and combined qualitative and quantitative methodology.

Bougenvile and Ruswanti (2017) examined brand equity in Indonesia. The study used the two brands in juice product category, Minute Maid and Floridina. The main goal was to understand the behaviour of willingness to pay a premium price in product purchase through brand equity. The other objective focused on strategy execution of new entrant in the juice market. The study used a sample of 330 juice consumers and PLS-SEM model was used in hypotheses testing. The findings indicated that loyalty to juice is the foundation of building strong brand equity. Moreover, a positive significant effect existed between brand association and awareness, whereas a weak link existed for perceived quality dimensions. Consumer purchase intention and willingness to pay higher prices are determined by juice's brand equity. The study was limited in the scope of Indonesia (Greater Jakarta) and focused on one product that brings the challenge of generalization of results to other product categories and areas. The study failed to address other constructs of brand equity. This study added a mediator variable that is brand equity and incorporated brand association, awareness and image constructs.

2.4 Summary of literature review and research gaps

The following table presents a summary of the reviewed literature, highlighting key findings, gaps and the focus of the current study.

Author & Year	Thematic Area	The focus of the study	Research Findings	Research gap	Focus of the current study
Lazaris *et al*. (2021)	**Omnichannel integration**	Omnichannel integration effects in UK	The finding showed a rise in omnichannel integration result in channel synergies with favorable effects on loyalty intention and customer satisfaction	Methodological gap: The limitation of conducting experiments and laboratory studies only with electronic products that are high involvement and expensive products and consumers of electronic products are regarded as technology savvy.	This study dealt with performance perspective of retail stores. The study used different categories of goods in different stores and added explanatory and descriptive arguments
Gao and Huang (2021)		Quality of channel integration in China	The findings indicated that omnichannel integration quality positively impacted and receptiveness to relationship program and engagement of customers, which had an overall impact on customer loyalty.	Contextual gap: The study was primarily focused on of fresh food supermarkets in China, which would restrict generalization to other nations and retail forms. Conceptual gap: The study has used customer engagement and receptiveness relationship program and customer engagement as mediating variables.	The study used different product categories in measuring the performance of retail stores and used added moderator and mediator variables.

Nguyen (2021)		Channel integration quality in Vietnam	The findings revealed that quality of channel integration dimensions contributed greatly to customer shopping experience. The content consistency dimension had the greatest impact on customer service and channel service choice breadth followed.	Methodological gap: The data collection was done from major cities and from four big omnichannel retailers that may lead to external validity problems. From a methodology perspective, the study used self-reported data from quantitative survey method	The study focused on major large scale retail stores and used both qualitative and quantitative data from managers of those stores.
Li and Gong (2022)		Omnichannel integration in perceived fluency and flow.	The findings indicate that all these levels had significant influence on perceived fluency, consequently generating customer engagement in terms of purchase, repurchase, referral and knowledge in omnichannel retailing. Customer engagement was facilitated by perceived flow which was positively correlated with transactional and relational integration variables	Conceptual gap: The study's limitation of using famous brands may lead to low construct variance due to respondents' tendency bias in scoring, due to high brand affinity for omnichannel brands, potentially affecting final scores.	The current study used retail managers in measuring the effects of omnichannel retailing on profit and sales growth. The moderating variables were dynamic capabilities and brand equity as mediator The study used various large scale retail stores with different brand equity.

Zhang *et al*. (2018)		Omnichannel integration and responses in consumer.	The study revealed that omnichannel integration promotes consumer empowerment, which boosts consumer satisfaction, trust, and increased consumer intentions to patronage.	Conceptual gap. The study used consumer empowerment as mediating variable and used only one consumer electronics product.	To overcome the conceptual gap of study, the current research used various theories such as RBV, dynamic capabilities and UTAUT instead of stimulus-organism-response framework. The limitation of using consumer perception was overcome by use of retail managers to illustrate the impact of integration on performance.
Liu *et al*. (2023)	**Omnichannel order fulfilment**	Omnichannel order fulfilment and return options	The study found the channel, price impacts of implementing BORS and BOPS strategies, and identified the specific circumstances where a retailer can benefit from both strategies. The retailer should simultaneously implement both strategies to maximize their complementary effects.	Methodological gaps. The study used no data but developed a stylized model, which had various assumptions regarding the model's tractability and the delivery of critical insights.	The current study collected data from retail stores manager and evaluated how omnichannel order fulfilment impacts sales and profit.

Fisher *et al*. (2019)		Rapid Delivery in omnichannel Retailing in USA	The finding indicates sales growth from delivery speed improvement by the retailer. According to sales projections, faster delivery increased physical stores sales by 1.82% while sales in online stores grew by 3.7% in the 50 weeks after the launch of the new distribution center.	Methodological gap: The use of quasi-experiment methodology made it hard to identify spillover and treatment effects that were focused on the partner retailer's environment. Conceptual gap: ignored the service quality dimension	The current study incorporated brand equity and dynamic capabilities variables that factored disregarded dimensions to overcome the conceptual gap of and use explanatory and descriptive research design to address the challenges of quasi-experiment methodology
Riaz *et al*. (2021)		Omnichannel customer experience in Pakistan.	The research findings indicate a positive significant effect of integration, order fulfilment, usability and customer experience	Contextual gap: The study used a sample used from Pakistan, which could have an impact on external validity and generalization. Conceptual gap. The study used consumer behaviour as mediating variable.	This study focused on the performance of retail stores and incorporated brand equity as mediating and dynamic capabilities as moderating variables.
Wollenburg *et al*. (2018)		Fulfilment related options in Germany	The study found that directing customers across different channels might stimulate omnichannel shopping behaviour and purchase intentions. Omnichannel retailers can enhance revenue by	Methodological gap: used exploratory research design, which may give inconclusive findings and use of small sample size. The study focused only on big fashion retailers in	To overcome the limitations, the current study incorporated large scale retail stores in various categories such food retail, specialty and hypermarket and used explanatory approach to

			providing accurate product availability information on their online platforms, encourage store visits and product returns in-store.	Germany. This may inhibit generalization.	overcome the inherent limitation of exploratory design of inconclusive findings and small sample size
Davis-Sramek *et al*. (2020)		Transformation in retail business in USA	The study offers insight into how the transition occurs, the rate that occurs across different retailers and the reason why the rate of transition differs across omnichannel retailers. The results indicate that these methods depend on retailers' capacities and supply chain configurations	Methodological gap: use of longitudinal multi-case methodology would be hard to establish cause-and-effect relations Contextual gap: The was limited in the inclusion of only six retailers which is hard to generalize the finding as the selection to other retailers.	The current study used cross-sectional research methodology by using 22 large scale retail stores.
Ren *et al*. (2023)		Channel transparency on a major north American retailer	The information-sharing policy was found to have an impact on sales increases from shoppers residing within store's territory. The strategy motivates switching across the channels and decreases lost revenue and negative brand	Methodological gap**:** using quasi-field experimental designs would be hard to establish cause-and-effect relationship due effects of confounding variables Conceptual gap: The findings are only relevant to products that require new	The study combined explanatory and descriptive design. The study used wide product categories that do not rely on new information before purchase.

	Omnichannel-service configuration		experience which leads to an increase in overall retail sales.	information before they make purchase decisions.	
Quach *et al.* (2022)		Service integration in USA	The finding states that service transparency and consistency have substantial effect on flow and perceived risk and is positively correlated to customer loyalty.	Methodological gap: The study had limitations of using self-reported data from previous Walmart experience and this would affect accuracy due to recalling difficulties. Conceptual gap: The study had limitations as it focused on one variable of service configuration. The study used theories such as flow and hyperbolic discounting.	The current study used two constructs of service transparency and breadth of channel service configuration and included UTAUT theory.
Gao *et al*. 2021).		The moderating effects of channel characteristic on customer experience incongruence in China	The study indicates that inconsistency in customer experience had negative effects on customer retention, thus the need for omnichannel retailers to build consistent shopping experiences.	Conceptual gap: the study used channel characteristics as a moderator and a goal theory Contextual gap: The study had a limitation of generalizability as the sample consisted of respondents from China.	The study used dynamic capabilities as a moderating variable. It drew from social exchange theory, dynamic capabilities, RBV and UTAUT theory.
Chen *et al*. (2023)		The impact of channel integration and perception of	The findings indicate that configuration of channel service positively affected	Methodological gap: The study used small sample sizes and focused on	The current study had a sample size of 88 from departmental heads in

		customer in China and Taiwan.	customer experience and engagement. The configuration of channel service had effects on customer empowerment and experience	clothes and shoes that may affect generalization. The questionnaires were self-reported and responses.	large scale stores and focused on a wide range of products. This ensured questionnaire is explained before administering them to manager.
Mukhopadhya *et al*. (2023)		Consumer patronage and the culture in China	The finding indicates that omnichannel integration significantly impacted consumer loyalty and buying intention	Methodological gap**:** The study conducted fewer studies Conceptual gap: research used culture as a moderator variable ignoring other variables.	This study focused on brand equity as mediating and dynamic capabilities as moderating variables and included more stores.
Solem *et al*. (2023)	**Dynamic capabilities**	Dynamic capabilities and omnichannel retailing in Norway.	The findings outlined dynamic capabilities required were technology development, customer experience optimization, collaboration, and value-based omnichannel retailing system.	Methodological gap: The research used a sample size of 30 respondents and use of a larger samples size would yield better results.	The current study used larger sample size of 88 managers; and used an explanatory research design.
Liu and Song (2023)		Integration of logistics capability and performance enhancement in China	The findings indicated that association existed between internal and external logistics integration capability, which had positive effects on supply chain	Conceptual gap: The study was limited on measuring performance using one dimension of financial indicators. The study examined the logistics integration capabilities	The current study included brand equity as a mediating variable and adopted the exploratory research design. The measurement of performance extended to

			integration. The relationships had significant effects on financial performance.	using a component of supply chain ignoring other factors that may influence it.	non-financial dimensions.
Eriksson *et al*. (2022)		Omnichannel logistics and dynamic capabilities in Italy	The findings indicated that components of dynamic capabilities were key to allowing transformation in omnichannel retailing.	Methodological gap: The study was limited on external validity as it used three cases from one market while analyzing additional cases from other markets could have improved results	The current study uses large scale retailers across sectors which are food retail, hypermarkets and specialty stores. The use of a multi-case approach makes generalization of findings to wider scope difficult hence the study used more samples with a quantitative and qualitative approach.
Oh *et al*.(2012)		Retail channel integration and firm performance in Singapore.	The finding indicates that channel integration coupled with information technology could enhance retailer's efficiency that enhances overall performance. The finding offers empirical evidence supporting the positive impacts of quality of channel integration on firm performance.	Methodological gap: The study limitations on data collected as it was from a single informant from each firm creating a potential bias. Contextual gap: The dataset from Singapore retail firms would limit the generalizability of our results to other places with	The current study incorporated dynamic capabilities and brand equity variables. The data was collected from different chain stores to avoid the bias of a single informant.

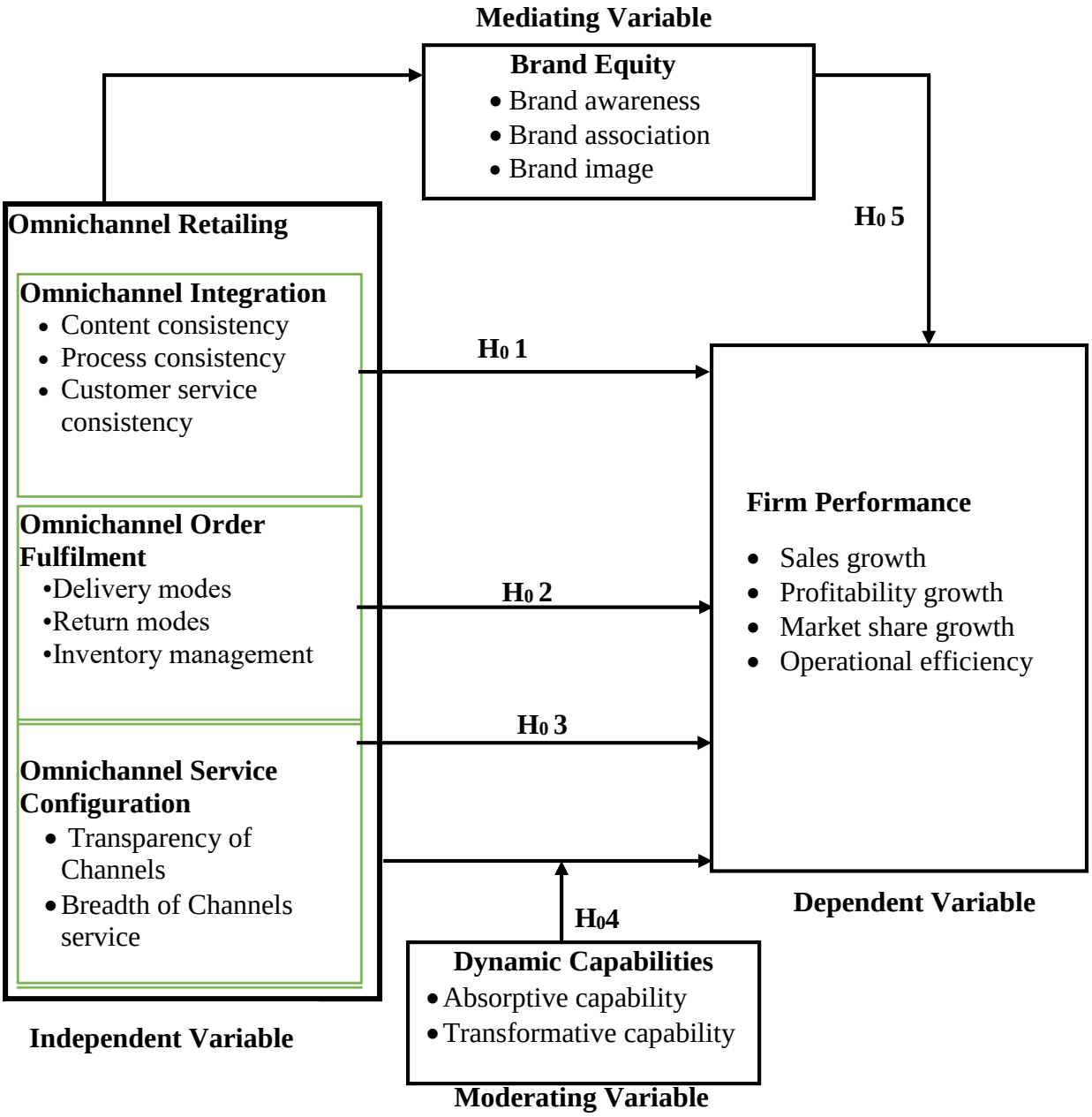
				larger and many retail stores.	
Swoboda *et al*. (2016)	**Brand equity**	Retail brand equity predictors in Germany.	The study found a high correlation between brand equity in retail and attributes, and loyalty of consumer across retail sectors. The finding emphasized the significance of retail attributes in the relationship.	Methodological gap**:** The study had limitations in data collection through the usage of quota sample-based census.	The study used a census-based method with different strata of food, hypermarket and specialty stores to capture the diversity in the categories.
Jara and Cliquet (2012).		Brand equity in retail in France	The finding concluded that retail brand awareness significantly influences the choice of retail brand and purchase intention. The retail brand image had significant influence on consumers' response on their intention to purchase and choice of retail brand.	Methodological gap**:** The study had limitations of using quota sample based on census and combination of retailers' evaluation in each category limited study's scope.	The focus was on different product categories in the retail sector and used census-based approach.
Bougenvile and Ruswanti (2017)		Brand equity in Indonesia	The findings indicate that loyalty to juice is the foundation of building strong brand equity. Moreover, a positive significant effect existed	Contextual gap: The study is limited on the scope of Indonesia (Greater Jakarta) and Conceptual gap; The focus on juice would bring the challenge of	The study incorporated brand equity as the mediating variables and incorporated brand association, awareness and image. The wide

			between brand association and awareness, whereas a weak link existed for perceived quality dimensions. Consumer purchase intention and willingness to pay higher prices are determined by juice's brand equity	generalization of results to other products.	product categories were used.

Source: Author (2024)

2.5 Conceptual Framework

It demonstrates the relationship between omnichannel retailing and performance of large scale retail stores performance as conceptualized in the research. The omnichannel retailing variable is conceptualized as omnichannel integration, omnichannel service configuration and omnichannel order fulfillment. The firm's performance dimensions are operational efficiency, and growth in market share, profitability and sales. The framework hypothesizes that brand equity and dynamic capabilities, mediates and moderates the relationship between firm performance and omnichannel retailing.


Mediating Variable
Brand Equity
• Brand awareness
• Brand association
• Brand image
Omnichannel Retailing
Omnichannel Integration
• Content consistency
• Process consistency
• Customer service consistency
Omnichannel Order Fulfilment
•Delivery modes
•Return modes
•Inventory management
Omnichannel Service Configuration
• Transparency of Channels
• Breadth of Channels service
Independent Variable
H0 1
H0 2
H0 3
H0 5
H04
Firm Performance
• Sales growth
• Profitability growth
• Market share growth
• Operational efficiency
Dependent Variable
Dynamic Capabilities
• Absorptive capability
• Transformative capability
Moderating Variable

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The third chapter discusses the following components of methodology; the adopted research design and philosophy, population, measurement of variables, and empirical models. This section also discusses data validity and reliability, data analysis approach, diagnostics tests, and research ethics.

3.2 Research Philosophy

The study design and interpretations of findings are greatly influenced by research philosophy adopted (Saunders, Lewis & Thornhill, 2007). Three main philosophies guiding social research are pragmatism, interpretivism and positivism (Maylor, Blackmon & Huemann, 2017). The study adopted positivism as a philosophy that holds that research assumptions and data collection are made independently of the observed and measured phenomena resulting in objectivity (Mugenda & Mugenda, 2003).

According to the positivism philosophy, the truth is fixed and observable and defined from an objective perspective. Positivism builds on the existing theories in the construction of hypotheses that either are accepted or rejected (Saunders, Lewis & Thornhill, 2009). Positivism philosophy has four characteristics that are objectivity, reductivism, inductivism, and phenomenalism (Ryan, 2018). Creswell (2009) recommends that positivism philosophy is ideal for illuminating the link between variables having cause and effect relationships. This study focused on existing theories, establishing cause and effect relationships, observable objectives, testing hypothesis on omnichannel retailing in prediction of the performance of large scale retail stores.

3.3 Research Design

Research design is classified into three levels of explanatory, exploratory, and descriptive (Saunders *et al.*, 2007). The study utilized descriptive and explanatory research designs. The blend of two research designs enhances validity by allowing the triangulation of the results designs as recommended. Exploratory research design was not appropriate as study involved hypothesis testing that required objectivity in the study. The descriptive research design ensures reliable relationships between research variables without inferring causality (Saunders *et al*., 2009). The study used cross-sectional approach, and this emphasizes gathering of precise data from research subject at defined timeframe (Copper & Schindler 2003).

The study employed an explanatory research design in explaining research variables and analyze the causal relationship among them. The explanatory design is ideal for testing cause and effect relationship between study variables (Mugenda & Mugenda, 2008). The two research designs complemented each other in the study by describing the population and hypothesis testing. In addition, they were highly appropriate in achieving the research objective and providing structured framework for understanding relationship between omnichannel retailing and retail performance.

3.4 Empirical Model

The relationships between omnichannel retailing and performance variables are explained by the model. The dynamic capabilities and brand equity moderates and mediates the relationship respectively. Therefore, regression, mediation, and moderating models were used to examine the relationships among variables. Cooper and Schindler (2013), state that regression analysis is employed, provided that the dependent variable is continuous and contained within the interval (0, 1) and has a regression structure.

3.4.1 Multiple Linear Regression Model

The analysis of the research objective was determined by using the model. The significance of the following variables: omnichannel integration, omnichannel service configuration, omnichannel order fulfillment and performance, were investigated using an empirical model. According to regression model 3.1, the model's performance was regressed to predict performance variables.

Model 3.1.

$FP = \beta_0 + \beta_1 OCI + \beta_2 OCS + \beta_3 OCF + \varepsilon.$

Illustrations of the model:

FP = Composite Index for the performance of large scale retail stores
OCI = omnichannel integration
OCS= omnichannel service configurations
OCF = Omnichannel order fulfilment
ε = Error term
β_0 = Intercept
β_1- β_3 = Regression coefficients for OCI, OCS and OCF (independent variable)

The composite index of every variable was obtained through use of harmonic mean. According to Gupta (2008), harmonic mean is reciprocals of average of reciprocals on given variables. It is based on the average reciprocals of integers. Below are the formulas for computing the different Variable Indices.

$$H = \left\{\sum_{i=1}^{N} \right\} \left[\sum_{I=1}^{n} \frac{1}{xi}\right] [w_i]$$

H= Composite Index. The variable in which the composite index is the performance of large scale retail stores

N = Total number of components that constitute a particular variable

n = Dataset of total numbers of respondent

x_i = Mean score for each component in large scale retail stores, calculated by comparing the real score on the highest attainable score.

W_i= Weight of average score for every variable in large scale retail stores is determined by dividing the mean score in every variable by total of the entire average scores.

3.4.2 Mediation Model

An explanation of the relationship between the omnichannel retailing and retail store performance provided by a mediator. This study employed three step process developed by Baron and Kenny model (Zhao, Lynch Jr & Chen, 2010), on investigation of the brand equity mediating effect on omnichannel retailing and retail store performance.

Step 1

The initial step involves regressing performance on omnichannel retailing. This to confirm if omnichannel retailing is performance predictor. This is indicated in Model 3.2 below:

Model 3.2

$$FP = \beta 0 + \beta 1\ OR + \varepsilon.$$

Where:

FP = Firm Performance

OR = Omnichannel Retailing

ε = Error term

β_0 = Intercept

β_1 = Coefficient of slope denoting an impact of omnichannel retailing on firm performance.

The objective of conducting a test before mediation is to decide if the need exists to mediate the relationship between the variables as indicated in model 3.2.

Step 2

This involved regressing brand equity on omnichannel retailing and confirming that omnichannel retailing was a predictor of brand equity as illustrated in **Model 3.3.**

$BE = \beta_0 + \beta_1 OR + \varepsilon$ **……** 3.3

Where:

BE	= Brand Equity
OR	= Omnichannel retailing
ε	= Error term
β_0	= Intercept
β_1	= Coefficient of slope denoting the influence of the omnichannel retailing on brand equity

If brand equity has no relationship with omnichannel retailing, that is β_1 in model 3.3, this implies that it is not statistically significant, and the relationship has no mediation effect.

Step 3

The step three involves regressing performance on brand equity and omnichannel retailing to ascertain whether brand equity was an important predictor of performance as illustrated in the

Model 3.4

$FP = \beta_0 + \beta_1 OR + \beta_2 BE + \varepsilon.$

Where:

FP	= Firm Performance
OR	= Omnichannel retailing
BE	= Brand equity
ε	= Error term
β_0	= Intercept
β_1 & β_2	= Coefficients of slope denoting the effects of the omnichannel retailing and firm performance.

Table 3.1: Mediation Criteria Decision

Model 3.5	Total effect	Conclusion
Model 3.2 $FP=\beta_0+\beta_1 OR+ \varepsilon$	β_1, $P > 0.05$	No mediation relationship exists between variables
	$\beta 1$, $P < 0.05$	There is a mediation relationship between variables
Model 3.3 $BE=\beta_0+ \beta_1 OR + \varepsilon$	$\beta 1$ & $\beta 2$: $P < 0.05$	Partial mediation
Model 3.4 $FP = \beta_0+ \beta_1 OR+ \beta_2$ BE + ε	$\beta 1$: $P > 0.05$, $\beta 2$: $P < 0.05$ $\beta 1$ (model 3.4) $<\beta 1$(model 3.2)	Full mediation

Source: Baron and Kenny (1986)

3.4 3 Moderation Model

Whisman and McClelland (2005), state that the moderation test involves evaluating coefficient interaction term level of significance. The study determines the impact of moderation of dynamic capabilities variable on relationship between omnichannel retailing and firm performance using Baron and Kenny's method.

The models 3.5 and 3.6 are illustrated below:

Model 3.5……$FP= \beta_0 + \beta_1 OR + \varepsilon$

Model 3.6 ……$FP= \beta_0 + \beta_1 OR + \beta_2 DC + \beta_3 X^* DC + \varepsilon$

Where: FP= Performance

OR = Omnichannel retailing

DC= Dynamic capabilities

ε = Error term

β_0 = Intercept

β_1 = Coefficient relating to omnichannel retailing effects on performance when dynamic capabilities, $X_2= 0$

β_2 = Coefficient relating to dynamic capabilities effects on performance when omnichannel, $X_1 = 0$

β_3 = The moderator effect estimated using the regression coefficient for the interaction term.

X^*DC (interaction term) = Dynamic capabilities * composite index for omnichannel retailing

The table below illustrates the decision criteria that were used to analyze the moderating variable using F-statistics at 5% significance level. Dynamic capabilities were first analyzed as independent and then as moderating variable respectively.

Table 3.2: Moderation Decision Criteria

Model 3.5	Model 3.6	Conclusion
β_1, $P > 0.05$		There are no moderation effects
β_1, $P \leq 0.05$	β_2, $P > 0.05$	Dynamic capabilities as a predictor variable
β_1, $P \leq 0.05$	β_2, $P \leq 0.05$	Dynamic capabilities have a moderating effect

Source: Whisman and McClelland (2005)

3.5 Target population

The large scale retail stores based in Nairobi City County are the target population, as depicted in the appendix III. The target population is comprised of hypermarkets, food retail and specialty stores. The study adopted a census-based approach where 22 large scale retail stores were visited for data collection. The head of departments selected from the finance & accounting, marketing, information technology, and operations/logistics were unit of observation. The respondents comprised of 88 heads of department from the 22 large scale retail stores. The selection of the departmental heads was purposive as they are deemed to understand the retail store performance as they interact with staff and customers and actively

involved in implementing of omnichannel retailing strategies. Table 3.3 below illustrates the population targeted.

Table 3.3 Target Population Distribution

Type of Retail Stores	Size of Population	Percentage	Functional Departments	Cumulative
Hypermarkets	9	40.9	4	36
Food retail	5	22.7	4	20
Specialty	8	36. 4	4	32
Total	22	100		88

Sources. Research (2024)

3.6 Data Collection Instrument

This research utilized semi-structured questionnaires in data collection from retail managers of large scale retail stores. Semi-structured questionnaires are valuable in quantitative analysis, hypothesis testing, and conclusion drawing (Mugenda & Mugenda, 2003). The usage of a questionnaire is an effective technique in gathering data about the opinions, perceptions, and behavioural traits of individuals (Creswell, 2009). Questionnaire development was anchored on research objectives and hypotheses, theories and literature review of similar studies.

Creswell and Plano-Clark (2011) indicate that the procedure in questionnaire development involves determining study constructs, generating questionnaire items, validating scales, determining measurement scales, pre-testing, and evaluating reliability. The questionnaire's research items were rated on level of agreement using an ordinal 5-point Likert scale. The research instrument constituted six parts: The first section contained demographic and general information, the section B, C and D concentrated on omnichannel integration, omnichannel order fulfillment and omnichannel service configuration respectively. The mediator and

moderator variables were addressed in sections E and F respectively. The performance of large scale retail variables was discussed on the last section.

3.7 Operationalization and Measurement of Variables

This section discusses how variables were operationalized and validated by other researchers. The research independent variable is omnichannel retailing while firm performance is dependent variable. Brand equity and dynamic capabilities mediate and moderate the relationship between omnichannel retailing and retail store performance respectively.

Table 3.4 Measurement of the Study Variables

Variable	Type	Operationalization of Variables	Indicators	Measurement Level	Questionnaire Item
Omnichannel integration	Independent	This is how a retailer combines operations and interactions in terms of content and process consistently across all channels such as physical, mobile and online platforms in offering shoppers with a seamless customer experience while shopping.	• Content consistency • Process consistency • Customer service consistency	Ordinal-5-point Likert scale	Section B
Omnichannel order fulfilment	Independent	Omnichannel order fulfilment is integrating several distribution channels and taking a comprehensive approach in terms of inventory management, delivery modes and returns to ensure customers' orders are fulfilled through a seamless experience.	• Delivery modes • Return modes • Inventory management	Ordinal-5-point Likert scale	Section C
Omnichannel service configuration	Independent	This relates to the range of service elements and related delivery outlets that are available which are manifested by transparency and breadth of channel service.	• Breadth of channel service • Transparency of channel	Ordinal-5-point Likert scale	Section D
Brand equity	Mediating	Market-based intangible assets that are derived from brand association, brand awareness and brand image enables retail stores to generate higher margins in its existence.	• Brand awareness • Brand image • Brand association	Ordinal-5-point Likert scale	Section E

Dynamic capabilities	Moderating	The absorptive and transformative capabilities of retail stores that utilize resources and processes in the integration of sale channels. The changes in the retail landscape, customer behaviours, and technological advancements that have facilitated the need to enhance retail performance.	• Absorptive capability • Transformative capability	Ordinal-5-point Likert scale	Section F
Firm Performance	Dependent	The success of omnichannel retailing outcome with respect to profitability growth, sales growth, market share growth and operational efficiency in retailing activities	• Market share growth • Sales growth • Profitability growth • Operational efficiency	Ordinal	Section G

Source: Author and Literature review (2024)

3.8 Pilot Study

Viechtbauer, Serroyen and Crutzen (2015) indicated that pilot study involves limited and controlled study designed to assess the viability and validity of the methodologies prior to undertaking full-scale research. This is done to ensure internal consistency, gauge the understanding and identify misrepresentation in research instruments. According to Hazzi and Maldaon (2015), the ideal sample size range should lie between 10-20% in pilot study. The study used 10 respondents in the pilot study that is equivalent to 11.4%. The exclusion of respondents who participated in pilot study was ensured in the final study sample.

3.9 Validity and Reliability of Research Instruments

The research questionnaire underwent reliability and validity test before collecting data. The process on this assessment is presented in this section.

3.9.1 Validity of Research Instruments

This is the level at which research instruments evaluate the intended measurement and estimate the accuracy of the measured data (Saunders *et al*., 2019). The validity was ensured through use of content, face, construct validity. The research instrument was examined by academic supervisors, and a thorough review of related literature was done to ensure content validity. This involves precisely describing a concept's dimensions and elements (Sekaran and Bougie, 2016). Construct validity was employed in assessing the questionnaire validity by ensuring they accurately reflect the intended theoretical construct. Cooper and Schindler (2003) indicated that construct validity of study variables is done using criterion-related assessment. The study ensured all variables derived from literature are included in the research instrument and used validated measures from prior studies to ensure criterion-related validity is achieved. Face validity was assessed to ensure suitability of the questionnaire to the managers by

comparing previously developed tools in terms of formatting and relevance. Face validity is a questionnaire's subjective assessment in terms of relevance, layout, accuracy and suitability for its target respondents (Ranganathan, Caduff & Frampton, 2024). The pilot testing was conducted to guarantee understanding of the questions by respondents, assess reliability and validity of scale, and fix data collection issues (Saunders et al., 2019).

A Confirmatory Factor Analysis (CFA) with Varimax rotation was undertaken to measure the construct's level of validity to be considered in the final variables model. Any variables loaded above 0.40 were considered for further analysis and those below 0.40 were dropped from the model as they were determined to lack validity (Taherdoost, 2016). Table 3.5 shows the results.

Table 3.5: KMO and Bartlett's Validity Test

KMO and Bartlett's Test	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity		
		Approx. Chi-Square	df	Sig.
Omnichannel Integration	.809	163.77	15	.000
Omnichannel Order fulfilment	.784	197.588	21	.000
Omnichannel Services Configuration	.680	210.200	21	.000
Brand Equity	.713	144.905	15	.000
Dynamic Capabilities	.717	189.839	21	.000
Omnichannel Based Performance	.850	470.239	28	.000
Firm Performance	.904	1669.582	105	.000

Source: Survey Data (2024).

As indicated in table 3.5, the findings of the Kaiser-Meyer-Olkin (KMO) test were: 0.784 for Channel Integration; 0.680 for Omni-channel Order fulfilment; 0.713 for Channel Services

Configuration; 0.717 for Brand Equity; 0.850 for Dynamic Capabilities; and 0.904 for Firm Performance. These KMO and Bartlet's test results revealed coefficients that were far higher than the acceptable index of 0.4 for each of the variables studied. Additionally, Bartlett's test of sphericity was confirmed as significant ($0.000 \leq 0.05$) to reveal that each variable correlation matrix differs from its identity matrix, confirming that substantial correlation among variables and thus factors are appropriate for factor analysis.

The validity of the indicators informing each variable was measured using CFA. Omnichannel integration variable, 70.1% of the variability in channel integration is explained by three indicators. These indicators include integrated mobile, online and physical channels (43.5%); improved operational efficiency by integrating various channels (14.3%); and consistent product information across channels (12.3%). The remaining variability is explained by three factors: processes to ensure customer service consistency across channels (10.7%); transition between physical stores visits and online interactions to ensure a unified experience (9.3%); and consistent pricing information across channels (9.9%). The principal component analysis (PCA) for all these factors loaded were observed to be higher than 0.40 (PCA ranges from 0.819 to 0.648) with no significant cross loading reported.

Similarly, the validity of Omnichannel Order fulfilment revealed that 53.5% of total variability is explained by 1 factor with the other 4 factors explaining the remaining variability, with a PCA range of 0.740 to 0.642 with no cross-loading reported. On the other hand, 84.6% of the variability in Channel Services Configuration is explained by 4 factors, with the remaining small portion explained by 3 factors with the PCA ranging from 0.750 to 0.534. Similarly, 3 factors explain 78.76% of the variability in Brand Equity, with 3 more variables explaining just 21.24% of the variability, with PCA ranging from 0.786 to 0.623 hence all are above the

0.4 level, and none was dropped. Another key variable, Dynamic Capabilities, had 4 factors explaining majority of its variability (85.29%), with the rest of the variability being explained by the remaining 3 factors, with a PCA range of 0.830 to 0.503. Based on principal factor analysis, all factors loaded above 0.4 explained our cutoff point and there was no cross loading.

3.9.2 Reliability of Research Instruments

Field (2013) defines reliability as the capacity to produce consistent results while measuring the same items in several contexts. Reliability describes how consistently and dependably an instrument assesses a construct (Sekaran, 2003). The questionnaire's reliability was tested to ensure that it generates consistent findings on repeated trials. The reliability of questionnaire was tested by Cronbach Alpha and coefficient of 0.7 or more was considered adequate (Hair, Anderson and Black, 2012). Table 3.6 indicates the results.

Table 3.6: Reliability Test (Cronbach Alpha)

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Observation
Omnichannel Integration	.874	.884	7	Reliable
Omnichannel Order Fulfilment	.868	.880	8	Reliable
Omnichannel Services Configuration	.864	.876	8	Reliable
Brand Equity	.851	.864	7	Reliable
Dynamic Capabilities	.843	.855	8	Reliable
Firm Performance	.974	.974	27	Reliable

Source: Survey Data (2024).

Table 3.6 indicate, the internal consistency and homogeneity of the items that make up the scale are measured where above 0.7 is considered reliable. The instrument revealed very high internal consistency as all the variables revealed they have internal consistency of more than 0.7; and is thus judged to show that the instrument is dependable. The Cronbach alpha of variables were: Channel Integration ($\alpha = 0.874$); Omnichannel Order Fulfilment ($\alpha = 0.868$); Omnichannel Services Configuration ($\alpha = 0.864$); Brand Equity ($\alpha = 0.851$); Dynamic Capabilities ($\alpha = 0.843$); and Omnichannel and Firm Performance ($\alpha = 0.974$), revealing presence of internal consistency in the study constructs and thus high level of reliability of the variables.

3.10 Data Collection Procedure

The study requested permission for data collection from Kenyatta University and submitted application for permit from NACOSTI. The permission and approval to collect data from retail stores was first sought before distribution of questionnaires. The questionnaires were distributed through drop-and-pick and online circulation. The drop-and-pick method enabled ample time for understanding of the study objectives to respondents and ensured high response rate and data quality. The data collection process used two research assistants where they were trained on the objective of the study, procedure of conducting research and ethics during data collection activity. The researcher explained the objective of the undertaking before data collection process. The two assistants and the researcher worked together to administer the research instrument to the departmental heads of finance, marketing, operations, and information technology in the headquarters of each of the 22 large scale retail stores in Nairobi City County.

3.11 Data Analysis and Presentation

Kothari (2004) states that data analysis is a systematic procedure that involves processing, coding, classification, and interpreting data for conclusion. After data collection, screening was done to make sure that the responses were correctly coded. The survey underwent data coding, cleaning, editing, and imputation to eliminate errors from initial data gathering, ensuring accurate results (Hair *et al.*, 2006). The study used both descriptive and inferential statistics in interpretation and analyzing of the data collected. The descriptive statistics provided profile of respondent and variable in terms of standard deviations, averages and percentages. Kothari (2004) defined regression analysis as statistical method for hypotheses testing and determination of significant relationships among studied variables. Multiple linear regression

analysis was used in testing hypotheses and explaining correlations among variables. It also examined the mediation and moderation models.

The relationship between the explanatory factors (omnichannel integration, omnichannel service configurations, and omnichannel order fulfilment) and outcome variable (retail store performance) was assessed by Pearson Correlation. The impact of moderating and mediating was measured by hierarchical multiple linear regression. The study tested hypotheses with a 95% confidence level to determine the independent variable's influence. The rejection of hypothesis occurs when p-value is below 0.05

Table 3.7: Test of Hypotheses

Research Objectives	**Hypotheses**	**Statistical Model**	**Interpretation**
i) To examine the effect of omnichannel integration on performance of large scale retail stores in Nairobi City County, Kenya.	**H 01**: Omnichannel integration has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.	$FP = \beta_0 + \beta_1 CI + \beta_2 OF + \beta_3 CS + \varepsilon$ Where: FP= Composite Index for performance of large scale retail stores. β_0=*Constant* $\beta_1, \beta_2, \beta_3,$ =*Régression coefficient* CI = omnichannel integration CS = omnichannel service configurations OF = omnichannel order fulfilment ε=Error term	Regression coefficient H0: β1, β2, β3, = 0 vs H1: β1, β2, β3, ≠ 0, Level of significance is p <0.05, Reject H0 if otherwise fail to reject the H0. Adjusted R^2 F – Value, t - Value
ii) To determine the effect of omnichannel order fulfilment on performance of large scale retail stores in Nairobi City County, Kenya.	**H 02**: Omnichannel order fulfilment has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.		

Research Objectives	Hypotheses	Statistical Model	Interpretation
iii) To examine the effect of omnichannel service configuration on performance of large scale retail stores in Nairobi City County, Kenya.	**H 03:** Omnichannel service configuration has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.		
iv) To assess the moderating effect of dynamic capabilities on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.	**H 04:** Dynamic capabilities have no significant moderating effect on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.	$FP = \beta_0 + \beta_1 X_1 + \varepsilon$ $FP = \beta_0 + \beta_1 OR + \beta_2 DC + \beta_3 XM_o + \varepsilon$ where FP=Composite Index for performance of large scale retail stores in Nairobi City County β_0=Constant $\beta_1, \beta_2, \beta_3$= Regression coefficient OR = omnichannel retailing Composite Index DC = dynamic capability Composite Index XM_o = omnichannel retailing and dynamic capability Interaction **ε**=Error term	Anova and Regression coefficient: Level of significance is 0.05 $p < 0.05$ reject the null hypothesis r^2, Adjusted r^2 F – Value, t - Value
v). To determine the mediating effects of brand equity on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.	**H 05**: Brand equity has no significant mediating effect on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.	$Y_F = \beta_0 + \beta_1 OR + \varepsilon$ $M_e = \beta_0 + \beta_1 OR + \varepsilon$ $Y_F = \beta_0 + \beta_1 BE + \varepsilon$ $Y_F = \beta_0 + \beta_1 OR + \beta_2 BE + \varepsilon$ Where: Y_F=Composite Index for performance of large scale retail stores β_0 = Constant β_1, β_2= coefficient of regression *OR*=Omnichannel retailing Composite Index *BE*= Brand equity Composite Index	Anova and Regression coefficient: Level of significance is 0.05 $p < 0.05$ reject the null hypothesis r^2, Adjusted r^2 F – Value, t - Value

Source: Author (2024)

3.12 Diagnostic Tests

Diagnostic tests were conducted prior to regression analysis to ensure adherence to classical assumption (Creswell and Plano-Clark, 2011). These tests are multicollinearity, normality, autocorrelation, and linearity tests.

3.12.1 Normality Tests

The normality tests assess data modelled by normal distribution, and probability of a random variable being normal and useful for parametric tests relying on normality assumptions. According to Saunders *et al.* (2008), the Kolmogorov-Smirnov and Shapiro-Wilk test assess whether data is normal. When test significance value is larger than 0.05, data is deemed normal and value less than 0 is regarded to be deviant from normal.

3.12.2 Linearity Test

Gaol, Kadry and Li (2014) states that a rise of predictor variable should lead to a rise of the dependent variable, if two variables show linear relationship. Linearity test was undertaken in measuring the existence of linear relationship between omnichannel retailing and large scale retail store performance. This adopted Pearson's correlation coefficient in assessment of linearity. According to Field (2009), positive coefficients reveal direct effects, whereas negative coefficients reveal an inverse relationship between the variables.

3.12.3 Autocorrelation Test

Durbin-Watson statistics were used to examine autocorrelation; a test value of two denotes an uncorrelated error, that ranges from 0 to 4. As the mistakes are unrelated, values close to two are considered acceptable (Field, 2009).

3.12.4 Multicollinearity test

Multicollinearity exists when there is high correlation in explanatory variables (Kothari, 2011). The collinearity raises the standard error and reduces reliability in coefficients. In multicollinearity test, tolerance values and the variance inflation factor was conducted and if it is more than 10 indicates its presence. Multicollinearity does not exist where a tolerance value is more than 0.1 (Field, 2009).

3.12.5 Heteroscedasticity Test

Kothari (2011) states that the presence of heteroscedasticity reduces statistical power of regression coefficients being inefficient and reveals biases in standard errors. The test was conducted using Breush - Pagan test. Machado and Silva (2013) assert that regression analysis requires constant observation of error terms; otherwise, it is considered heteroscedasticity. When p-value of null hypothesis is below 0.05, heteroscedasticity is evident, and it is rejected.

3.13 Ethical Considerations

Saunders *et al.* (2007), indicates that ethics are moral values that researchers should adhere to the research. The researcher recognized the significance of ethical guidelines like confidentiality, integrity and informed consent during the research. In addressing ethical issues, the data was solely utilized for academic purposes, and adherence of ethical standards in research. Further, the researcher sought permission from graduate school and a permit to conduct research from NACOSTI. The research findings may be published in reputable peer reviewed journals without either modification or influence of researcher to ensure optimal research ethics are maintained in this survey.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter reviews the study outcomes highlighting key findings and interpretation realized from the analysis process. It presents a descriptive analysis, which describes the nature of the study constructs. In addition, it discusses diagnostic tests, hypothesis testing and statistical inference on the relationships between study variables.

4.2 Descriptive Statistics

The study collected information explaining the state of various indicators in the target population. Demographic attributes analyzed include age, gender, education level, and working experience of the respondents. The information on type and age of the retail stores studied was analyzed. Also discussed in this section is the response rate comparing the target reach and the realized response in the survey.

4.2.1 Response rate

The study focused on key managers from large scale retail stores in Nairobi City County in Kenya. Table 4.1 indicates the rate of response.

Table 4.1: Response Rate

Strata	Target	Number of Respondents	Percent (%)
Hypermarkets	36	34	94.4%
Food retail	20	18	90.0%
Specialty Stores	32	31	96.9%
Total	**88**	**83**	**94.3%**

Source: Survey data (2024)

As indicated in table 4.1, the total response rate realized was 94.3% after acquiring 83 responses out of the 88 responses from studied retail stores. The collected response was sufficient for data analysis as response rate was above 50% and is considered adequate (Mugenda and Mugenda, 2008). The stratification was done on three main categories of large scale retail stores. Within the three levels of stratification in the study were the specialty stores with the highest response rate of 96.9%; the hypermarkets indicated a 94.4% response rate. Among the food retail stores, a 90% response rate was realized. The study was therefore able to realize adequate response rate from three strata.

4.2.2 Demographic information

This section describes the studied large scale retail stores and the specific respondents reached in these institutions who informed the study. The study identified various key demographic attributes like gender, age, education level and tenure of the respondents at the organization they represented. Additionally, a look at the category and age of retail organization was also undertaken to assess the retail stores reached. The outcomes are presented in table 4.2.

Table 4.2: Demographic and Retail information

Factors	Indicators	Frequency	Percent
Gender	Male	39	47.0
	Female	44	53.0
	Total	83	100.0
Age bracket	21 - 30 Years	39	47.0
	31 - 40 Years	23	27.7
	41 - 50 Years	14	16.9
	51 - 60 Years	7	8.4
	Total	83	100.0
Education level	Certificate	1	1.2
	Diploma	26	31.3
	Bachelor's Degree	42	50.6
	Master's Degree	14	16.9
	Total	83	100.0
Experience in retail organization	Below 5 years	32	38.6
	6-10 years	40	48.2
	11 - 15 years	10	12.0
	Above 15 years	1	1.2
	Total	83	100.0
Category of Retail Organization	Supermarket/Hypermarket	28	33.7
	Food Retail	18	21.7
	Specialty stores	34	41.0
	Others	3	3.6
	Total	83	100.0
Age of Retail Organization	Below 5 years	6	7.2
	6-10 years	10	12.0
	11 - 15 years	1	1.2
	Above 15 years	66	79.5
	Total	83	100.0

Source: Survey data (2024)

As indicated in table 4.2, the gender revealed a slightly higher representation for female respondents. The distribution of the respondents was female 53% and male 47%. Most of respondents were in age bracket of 20 – 30 years (47.0%), with a significant proportion being within the ages of 31 - 40 years (27.7%), 41 - 50 years (16.9%), and 51-60 years (8.4%). The research respondents were well distributed within the various age groups found in the working

demographics, and age disparity is a testament to the collection of varying generational viewpoints.

Most of respondents, 67.5% had minimum of bachelor's degree level of qualification, with a further 31.3% having attained a diploma qualification level. The respondents amounting to 1.2% had certificate level of qualification; 61.4% of respondents had worked over 5 years in retail store, while (38.6%) had under 5 years of experience. The respondents represented large scale retail stores categorized as Specialty stores (41.0%); Supermarket/ Hypermarket (33.7%), and Food Retail (21.7%). A large majority (79.5%) of these large scale retail stores have been in existence for more than 15 years and only 7.2% have existed for less than 5 years. The study ensured unbiased results by aligning target population with the intended demographic criteria, through addressing the research objectives and information needs.

4.2.3 Channels Usage

The survey analyzed the retail managers' opinion on the channel's usage in their large scale retail stores. The respondents were asked to state whether the various channels were available or not in the large scale retail stores. The results are presented in table 4.3.

Table 4.3: Channels usage

Statements	N	Not Available	Available
Physical channel	83	0.0%	100.0%
Online channel (website)	83	0.0%	100.0%
Mobile app (shopping app)	83	56.6%	43.4%
Third-party mobile apps e.g. Jumia, Glovo, Kilimall	83	16.9%	83.1%
Total	**83**	**18.4%**	**81.6%**

Source: Survey data (2024)

As indicated in table 4.3, all retail stores were found to have both physical channels and online channels (website), while usage of third-party mobile apps was found to be used by 83.1% large scale retail stores. However, only 43.4% of the large scale retail stores indicated they own mobile shopping apps.

4.2.4 In-store Technology Adoption

The study further assessed the various in-store technology adoptions within the large scale retail stores in Kenya. The results are shown in table 4.4.

Table 4.4: In-store technology adoption

Statements	N	Not in use	In Use
Point of Sale System	83		100.0%
Customer Relationship Management Systems	83	16.9%	83.1%
Order Management Systems	83	7.2%	92.8%
Inventory Management Systems	83		100.0%
Supply Chain and Logistics Platforms	83	27.7%	72.3%
Payment Gateways (banks transfer/mobile money) others	83 83		100.0% 19.3%
Total	83	33.1%	81.1%

Source: Survey data (2024)

The findings presented in table 4.4, the in-store technology adoption is widely used among the large scale retail stores. All retail stores indicated to have adopted the point-of-sale system, inventory management systems, and payment gateways (banks transfer/mobile money). Additionally, large scale retail stores own order management systems (92.8%), customer relationship management systems (83.1%), and supply chain and logistics platforms (72.3%). In addition, 19.3% of the studied large scale retail stores have other in-store technologies that they use in their operations. These in-store technologies reveal that majority of the stores are embracing retail technologies.

4.3 Descriptive Statistics on study variables

The following section contains descriptive statistics of research variables; omnichannel integration, omnichannel order fulfilment, omnichannel services configuration, dynamic capabilities, brand equity and performance of large scale retail stores. The data was presented using percentages, mean scores, and standard deviations. The findings are presented below.

4.3.1 Omnichannel Integration

The section indicates the opinion of retail managers on omnichannel integration in large scale retail stores. The questionnaire was developed through use of a Likert scale with items that represented integration constructs. The mean scores and standard deviation were used in analyzing the response. The Likert scale used ranged from 1- 5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree). The results are presented in Table 4.5.

Table 4.5: Omnichannel integration

Statements	N	Mean	S.D.
The retail store has integrated mobile, online and physical channels	83	4.12	.705
The retail store has improved operational efficiency by integrating various channels	83	4.27	.734
The retail store has processes to ensures customer service consistency across channels	83	4.34	.630
The retail store manages transition between physical store visits and online interactions to ensure a unified experience	83	4.29	.725
The retail store maintains consistent product information across channels	83	4.36	.655
The retail store provides consistent pricing information across channels	83	4.64	.554
Aggregate Mean score & Standard deviation	**83**	**4.335**	**.488**

Source: Survey data (2024)

As indicated in the table 4.5, the managers agreed that the retail stores provide consistent pricing information across channels (mean 4.64; S.D. 0.554); the retail stores maintained consistent product information across channels (mean 4.36; S.D. 0.655); the retail store has

processes to ensures customer service consistency across channels (mean 4.34; S.D. 0.630); the retail store manages transition between physical store visits and online interactions to ensure a unified experience (mean 4.29; S.D. 0.725); the retail store has improved operational efficiency by integrating various channels (mean 4.27; S.D. 0.734); and, that the retail store has integrated mobile, online and physical channels (mean 4.12; S.D. 0.705).

Based on the assessment of the mean aggregate mean score 4.335, confirming that most of managers agreed to the omnichannel integration constructs. The mean assessment indicates a high usage of omnichannel integration in large scale retail stores. The aggregate standard deviation of 0.488 revealing minimal deviation from the mean, implying a low variation in the retail managers' observation. These findings imply that a large majority of the stores studied have adopted the omnichannel integration.

4.3.2 Omnichannel Order Fulfilment

The section illustrates the view of retail managers on omnichannel order fulfilment in large scale retail stores. The questionnaire was developed through use of a Likert scale with items that represented omnichannel order fulfilment constructs. The mean scores, and standard deviation were used in analyzing the response. The Likert scale used ranged from 1- 5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree). The outcomes are presented in Table 4.6.

Table 4.6: Omnichannel Order Fulfilment

Statements	N	Mean	S.D.
The retail store has multiple order delivery options to ensure customer order fulfilment	83	4.27	.682
The retail store ensures consistency in the order fulfillment process across different channels	83	4.20	.658
The retail store has timely delivery of customers' orders across channels	83	4.28	.650
The retail store ensures efficient processing of order returns across all channels	83	4.19	.803
The retail store has collaborations across channels to deal with customer order returns	83	4.17	.809
The retail store has effective inventory management	83	4.39	.621
The retail store integrates inventory data across all sales channels	83	4.30	.639
Aggregate mean score and standard deviation	**83**	**4.257**	**.487**

Source: Survey data (2024)

As indicated in table 4.6, the retail managers agreed that the large scale retail stores had a multiple order delivery options to ensure customer order fulfilment (mean 4.27; S.D. 0.682); the large scale retail stores ensures consistency in the order fulfillment process across different channels (mean 4.20; S.D. 0.658); the large scale retail stores has timely delivery of customers' orders across channels (mean 4.28; S.D. 0.650); the large scale retail stores ensures efficient processing of order returns across all channels (mean 4.19; S.D. 0.803); the large scale retail stores has collaborations across channels to deal with customer order returns (mean 4.17; S.D. 0.809); the large scale retail store has an effective inventory management (mean 4.39; S.D. 0.621); and the large scale retail stores integrates inventory data across all sales channels (mean 4.30; S.D. 0.639).

The study revealed that overall manifestation of omnichannel order fulfilment within the large scale retail stores with aggregate mean of 4.257 confirming that majority agreed to omnichannel order fulfilment constructs. The mean assessment indicates a high usage of omnichannel order fulfilment in large scale retail stores. The aggregate standard deviation of 0.487 revealing minimal deviation from the mean, implying a low variation in the retail managers' observation.

4.3.3 Omnichannel Services Configuration

The section indicates the view of retail managers on omnichannel services configuration in large scale retail stores. The questionnaire was developed through use of a Likert scale with items that represented omnichannel services configuration constructs. The mean scores, and standard deviation were used in analyzing the response. The Likert scale used ranged from 1-5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree). The outcomes are presented in Table 4.7.

Table 4.7: Omnichannel Services Configuration

Statements	N	Mean	S.D.
The retail store has wide range of sales channels options	83	4.28	.650
The retail store has wide services options across sales channels	83	4.20	.658
The customers are aware of services options across the channels	83	4.11	.781
The store has transparency in return and refund policies across channels	83	4.16	.773
The retail store has clarity of product information across channels	83	4.31	.714
The retail store has transparency of pricing policies across channels	83	4.48	.632
The retail store provides transparent information on delivery and returns	83	4.46	.650
Aggregate mean score and standard deviation	**83**	**4.286**	**.482**

Source: Survey data (2024)

As indicated in table 4.7, the retail managers agreed that the large scale retail stores has wide range of sales channels options (mean 4.28; S.D. 0.650); the retail stores has wide services options across sales channels (mean 4.20; S.D. 0.658); the customers are aware of services options across the channels (mean 4.11; S.D. 0.781); the store has transparency in return and refund policies across channels (mean 4.16; S.D. 0.773); the retail store has clarity of product information across channels (mean 4.31; S.D. 0.714); the retail store has transparency of pricing policies across channels (mean 4.48; S.D. 0.632); and that the retail store provides transparent information on delivery and returns (mean 4.46; S.D. 0.650).

The study revealed that the overall manifestation of omnichannel services configuration within the stores studied had (aggregate mean score of 4.286) confirming that majority were in agreement to omnichannel services configuration statements. The mean assessment indicates

high usage of omnichannel services configuration in large scale retail stores. The aggregate standard deviation of 0.482 revealing minimal deviation from the mean, implying a low variation in the retail managers' observation. This confirms that the large scale retail stores have undertaken steps that allow for the omnichannel services configuration in their stores.

4.3.4 Brand Equity

The section indicates the view of retail managers on brand equity in large scale retail stores. The questionnaire was developed through use of a Likert scale with items that represented brand equity constructs. The mean scores, and standard deviation were used in analyzing the response. The Likert scale used ranged from 1- 5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree). The outcomes are presented in Table 4.8.

Table 4.8: Brand Equity

Statements	N	Mean	S.D.
The retail store has an image that enhances the implementation of omnichannel retailing	83	4.40	.604
The retail store has an image that builds customer trust to shop across the channels	83	4.37	.619
The brand association of the store ensures usage of omnichannel retailing by customers	83	4.30	.676
The customers associate the retail store with provision of a seamless experience in all channels	83	4.08	.629
The brand awareness of the retail store ensures customer willingness to engage with omnichannel retailing	83	4.16	.689
The retail store is recognized across various shopping channels	83	4.36	.691
Aggregate mean score and standard deviation	**83**	**4.279**	**.456**

Source: Survey data (2024)

As indicated in table 4.8, the respondents agreed that the retail store has an image that enhances the implementation of omnichannel retailing (Mean - 4.40; S.D. 0.604); the retail store has an image that builds customer trust to shop across the channels (Mean - 4.37; S.D. 0.619); the brand association of the store ensures usage of omnichannel retailing by customers (Mean - 4.30; S.D. 0.676); the customers associate the retail store with provision of a seamless experience across all channels (Mean - 4.08; S.D. 0.629); the brand awareness of the retail store ensures customer willingness to engage with omnichannel retailing (Mean - 4.16; S.D. 0.689); and, the retail store is recognized across various shopping channels, (Mean - 4.36; S.D. 0.691).

The study revealed that the overall manifestation of brand equity within the stores studied had aggregate mean of 4.279, confirming majority of retail managers agreed with constructs

measuring brand equity. The mean assessment indicates application of brand equity in large scale retail stores. The aggregate standard deviation of 0.456 revealing minimal deviation from the mean, implying a low variation in the retail managers' observation. This reveals that the studied large scale retail stores have high levels of brand equity.

4.3.5 Dynamic Capabilities

The section indicates the view of retail managers on dynamic capabilities in large scale retail stores. The questionnaire was developed through use of a Likert scale with items that represented dynamic capabilities constructs. The mean scores, and standard deviation were used in analyzing the response. The Likert scale used ranged from 1- 5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree). The outcomes are presented in Table 4.9.

Table 4.9: Dynamic Capabilities

Statements	N	Mean	S.D.
The retail store has invested in omnichannel retailing technology infrastructure	83	4.23	.611
The retail store has the ability to quickly adapt to customer demands across different sales channels	83	4.23	.631
The retail store has the capacity to modify existing retailing procedures and practices	83	4.12	.739
The retail store support transformative changes that enhance the omnichannel experience	83	4.12	.787
The retail stores have the ability to learn and adapt to implement the latest omnichannel retailing innovation	83	4.10	.692
The retail store uses its employees' knowledge and experience in implementation of the latest omnichannel retailing innovations	83	4.10	.775
The retail store incorporates feedback across channels into the omnichannel retailing infrastructure	83	4.25	.696
Aggregate mean score and standard deviation	**83**	**4.164**	**.471**

Source: Survey data (2024)

As indicated in table 4.9, the retail managers agreed to the following statements regarding their retail stores: the retail store has invested in omnichannel retailing technology infrastructure (Mean - 4.23; S.D. 0.611); the retail store has the ability to quickly adapt to customer demands across different sales channels (Mean - 4.23; S.D. 0.631); the retail store has the capacity to modify existing retailing procedures and practices (Mean - 4.12; S.D. 0.739); the retail store support transformative changes that enhance the omnichannel experience (Mean - 4.12; S.D. 0.787); the retail stores has the ability to learn and adapt to implement the latest omnichannel retailing innovation (Mean - 4.10; S.D. 0.692); the retail store uses its employees' knowledge and experience in implementation of the latest

omnichannel retailing innovations (Mean - 4.1; S.D. 0.775); and, the retail store incorporates feedback across channels into the omnichannel retailing infrastructure (Mean - 4.25; S.D. 0.696).

The mean revealed that within the studied stores, the dynamic capabilities level was significantly high rated with aggregate mean score of 4.164 confirming majority of managers agreed on statements used to assess dynamic capabilities. The mean assessment indicates usage of dynamic capabilities in retail stores studied. The aggregate standard deviation of 0.471 revealing minimal deviation from the mean, implying a low variation in the retail managers' observation. The research therefore revealed that the retail stores studied had high levels of dynamic capabilities as measured by the indicators.

4.3.6 Performance of Large scale retail stores

The assessment was undertaken to understand the performance level in relation to omnichannel retailing. The first phase of performance measurement was measured based on operational efficiency. The mean scores, and standard deviation were used in analyzing the response. The Likert scale used ranged from 1- 5 where (1 = strongly disagree, 2 = disagree, 3 = moderately agree, 4 = agree, and 5 = strongly agree. The results are presented in Table 4.10.

Table 4.10: Performance based on Operational Efficiency

Statements	N	Mean	S.D.
The retail store's usage of omnichannel retailing has led to growth in sales in online, physical, and mobile channels	83	4.16	.757
The adaption of omnichannel retailing has increased the number of customers in the retail store	83	4.05	.697
The retail store has improved operational efficiency through omnichannel integration processes across channels	83	4.28	.668
The retail store's omnichannel retailing has resulted in efficient order fulfillment	83	4.42	.566
The market share has grown due to the provision of consistent and seamless customer experience in all channels	83	4.02	.780
The retail store has gained market share through integrating omnichannel retailing capabilities and resources	83	3.98	.749
The implementation of omnichannel retailing has improved store's profitability	83	4.22	.750
The omnichannel retailing has led to cost cutting measures which have impacted on profitability	83	4.14	.751
Aggregate mean score and standard deviation	**83**	**4.158**	**.573**

Source: Survey data (2024)

As indicated in table 4.10, assessment of these factors revealed that the retail store's usage of omnichannel retailing has led to growth in sales in online, physical, and mobile channels (Mean - 4.16; S.D. 0.757); the adaption of omnichannel retailing has increased the number of customers in the retail store (Mean - 4.05; S.D. 0.697); the retail store has improved operational efficiency through channel integration processes across channels (Mean - 4.28; S.D. 0.668);

the retail store's omnichannel retailing has resulted in efficient order fulfillment (Mean - 4.42; S.D. 0.566); the market share has grown due to the provision of consistent and seamless customer experience across all channels (Mean - 4.02; S.D. 0.780); the retail store has gained market share through integrating omnichannel retailing capabilities and resources (Mean - 3.98; S.D. 0.749); the implementation of omnichannel retailing has improved store's profitability (Mean - 4.22; S.D. 0.750); and, the omnichannel retailing has led to cost cutting measures which have impacted on profitability (Mean - 4.14; S.D. 0.751). This performance level related to omnichannel retailing is significantly high and significant. The mean scores of the omnichannel performance measures with aggregate mean score of 4.158 indicating high performance ratings for studied large scale retail stores and aggregate standard deviation of 0.573 confirming low variation of opinion of retail managers on the constructs.

To further understand the performance improvements in the retail stores, the study considered the growth of the organization over a 5 years' period from 2020 to 2024 for sales, profitability and market share growth. The results are as presented in table 4.11.

Table 4.11: Performance based on Sales, Profitability and Market share growth

Sales growth	N	Average	Std. Dev.
Sales Growth 2020	79	1.70	.563
Sales Growth 2021	79	2.09	.788
Sales Growth 2022	79	2.75	.792
Sales Growth 2023	79	3.16	.898
Sales Growth 2024	82	3.35	1.070
Aggregate Mean Sales Growth		**2.607**	**.733**
Profitability growth			
Profitability growth 2020	79	1.58	.591
Profitability growth 2021	79	2.00	.768
Profitability growth 2022	79	2.66	.732
Profitability growth 2023	79	3.06	.867
Profitability growth 2024	82	3.30	1.108
Aggregate Mean Profitability Growth		**2.518**	**.711**
Market share growth			
Market share growth 2020	77	1.61	.764
Market share growth 2021	79	1.95	.904
Market share growth 2022	79	2.61	.912
Market share growth 2023	79	3.09	.909
Market share growth 2024	83	3.30	1.145
Aggregate Mean Market Share Growth		**2.513**	**.796**

Source: Survey data (2024)

From the assessment in the table 4.11, it was observed that sales of the studied retail stores grew significantly from 2020 to 2024; from an average of 1.70 rating in 2020 with SD of 0.563,

to mean of 2.09 rating in 2021 with a standard deviation of 0.788; 2.75 average rating in 2022 with a standard deviation of 0.792; 3.16 average rating in 2023 with SD of 0.898; and 3.35 mean rating in 2024 with a standard deviation of 1.070, revealing an increasing trend in the sales growth over the five years' period that greatly varied from one retail store to another. On profitability growth, an increasing average rating in profitability growth was observed where it grew from 1.58 (S.D. 0.591) in 2020 to 2.00 (S.D. 0.768) in 2021; 2.66 (S.D. 0.732) in 2022; 3.06 (S.D. 0.867) in 2023; and 3.30 (S.D. 1.108) in 2024; revealing significant growth over the period with high level of variances from the mean among the studied institutions. Similar growth over the 5 years' period was recorded for market share that highly varied from institution to another, growing from an average rating of 1.61 (S.D. 0.764) in 2020, to 1.95 (S.D. 0.904) in 2021, 2.61 (S.D. 0.912) in 2022, 3.09 (S.D. 0.909) in 2023, and 3.30 (S.D. 1.145) in 2024. The firms therefore reported increasing growth in sales, profitability, and market share over the 5 years. The overall performance of large scale retail store is shown in the table 4.12.

Table 4.12 Descriptive Statistics on Performance

Performance Metrics	Mean	Std. Dev.
Sales Growth	2.607	0.733
Profitability growth	2.518	0.711
Market share growth	2.513	0.796
Operational efficiency	4.158	0.573
Aggregate mean score and standard deviation	**2.685**	**0.663**

Source: Survey data (2024)

Table 4.12 presents aggregate mean score of the performance measured with respect to operational efficiency and growth in sales, profitability and market share. The average sales growth over the 5-year period was rated at 2.607 with standard deviation of 0.733. Growth in profitability over the 5 years was rated at an average of 2.518 in the retail stores studied with SD of 0.711. Market share growth within the period was rated at 2.513 over the study five-year period with SD of 0.796. This indicates an increasing trend in growth for these performance indicators from an overall look of the studied large scale retail stores. A composite performance score was calculated from operational efficiency performance; sales, profitability and market share growth scores at mean score of 2.685 indicating agreement with constructs, and standard deviation of 0.663 showing low variation with respondent view.

4.4 Diagnostic Tests

Diagnostic tests were done before data analysis and this was to ensure the outcomes of are reliable and robust in forecasting how variables relate to one another. The tests were done to ensure adherence to the linear regression assumptions. The following diagnostics tests: sample adequacy test, test of normality, multicollinearity, heteroscedasticity and linearity were conducted.

4.4.1 Sample Adequacy

The study undertook a reliability assessment of study variables through factor analysis which depends on sample size. This study used Kaiser-Meyer-Olkin (KMO) test in sample adequacy measurement. The KMO is an index used to assess factor analysis suitability, recommending values larger than 0.6 (Malhotra & Dash, 2011). As presented in Table 4.13, The KMO test on all factors yielded KMO index values exceeding 0.6, indicating a sufficient sample size for further analysis. The findings are in table 4.13.

Table 4.13: KMO Test of Sample Adequacy

	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	
KMO Test of Sample Adequacy	**Coefficient**	**Approx. Chi-Square**
Omnichannel Integration	.809	163.77
Omnichannel Order fulfilment	.784	197.588
Omnichannel Services Configuration	.680	210.200
Brand Equity	.713	144.905
Dynamic Capabilities	.717	189.839
Omnichannel Based Performance	.850	470.239
Firm Performance	.904	1669.582

Source: Survey data (2024)

4.4.2 Normality Test

The normality tests assess data modelled by normal distribution, and probability of a random variable being normal and useful for parametric tests relying on normality assumptions. The violation would lead to inaccurate p-values, thus misleading in decision making in hypothesis testing (Saunders *et al.* ,2008). To measure normality of the models, Kolmogorov Smirnov and Shapiro-Wilk tests were conducted. The tests confirm that the data has normal distribution, with no 2 tailed p-values below 0.05, and the W scores are very close to 1 (all of them are above 0.80) revealing that the data points are close to perfectly normal distribution. The study noted that the constructs consisting of omnichannel integration, omnichannel order fulfilment,

omnichannel service configuration, brand equity, and dynamic capabilities are normally distributed. The tests found that all the variables conform to the normal distribution assumption. The results are shown in table 4.14.

Table 4.14: Kolmogorov-Smirnov & Shapiro-Wilk tests

Tests of Normality[a,b]	**Kolmogorov-Smirnov[b]**			**Shapiro-Wilk**		
	Statistic (d)	**df**	**Sig.**	**Statistic (W)**	**df**	**Sig.**
Omnichannel Integration	.257	82	.083	.861	76	.206
Omnichannel Order Fulfilment	.240	78	.075	.883	76	.226
Omnichannel Service Configuration	.285	82	.078	.834	78	.160
Brand Equity	.254	81	.053	.853	77	.210
Dynamic Capabilities	.295	83	.054	.830	77	.183

a. Dependent Variable: Performance of Large Scale Retail Stores

b. Lilliefors Significance Correction

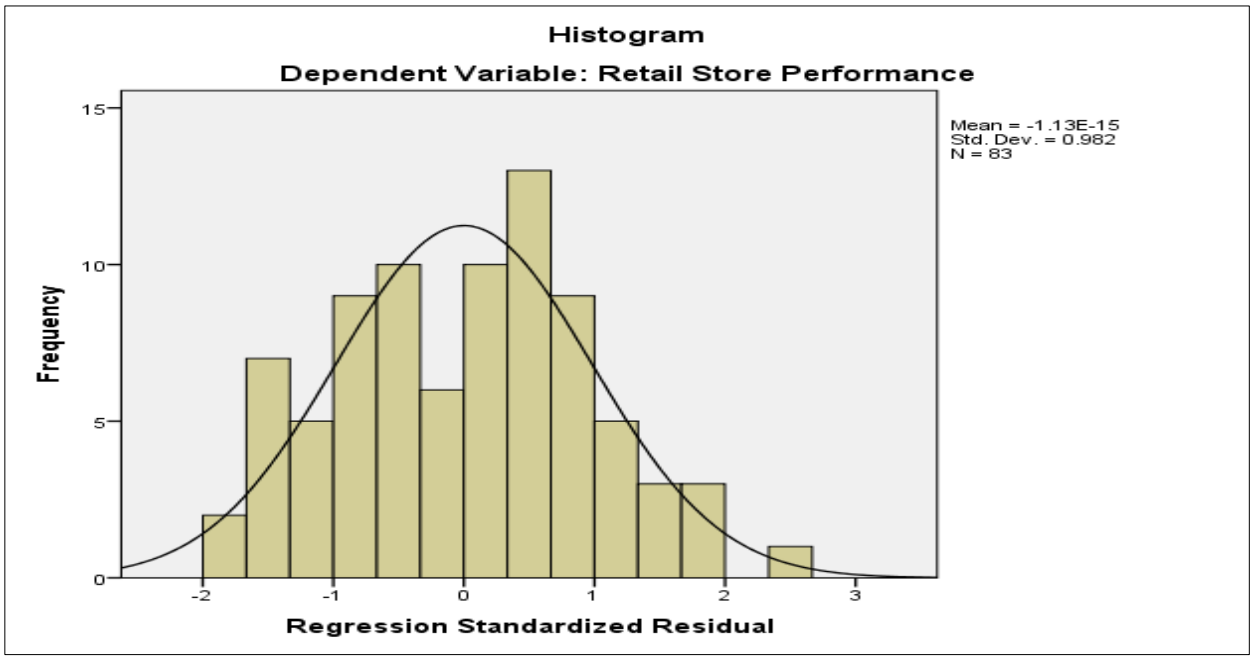
Source: Survey data (2024)

The various normality graphs were also done in the regression models to further confirm these findings. The post – estimation assessment for the regression model was undertaken through a normal probability plot for the regression between omnichannel order fulfilment, omnichannel

integration, omnichannel services configuration and the performance of large scale retail stores.

This study used the histogram output to graphically plot residuals, revealing the normality of the variables. As indicated in Figure 4.1, residuals of the regression model between omnichannel order fulfilment, omnichannel integration, omnichannel services configuration and the large scale retail stores performance was slightly skewed towards the negative side of the normal curve but not enough to violate the normality assumption. This shows that the model has normally distributed residuals as desired in the linear regression model.

Figure 4.1: Histogram plots for model 1 in relation to large scale retail stores performance

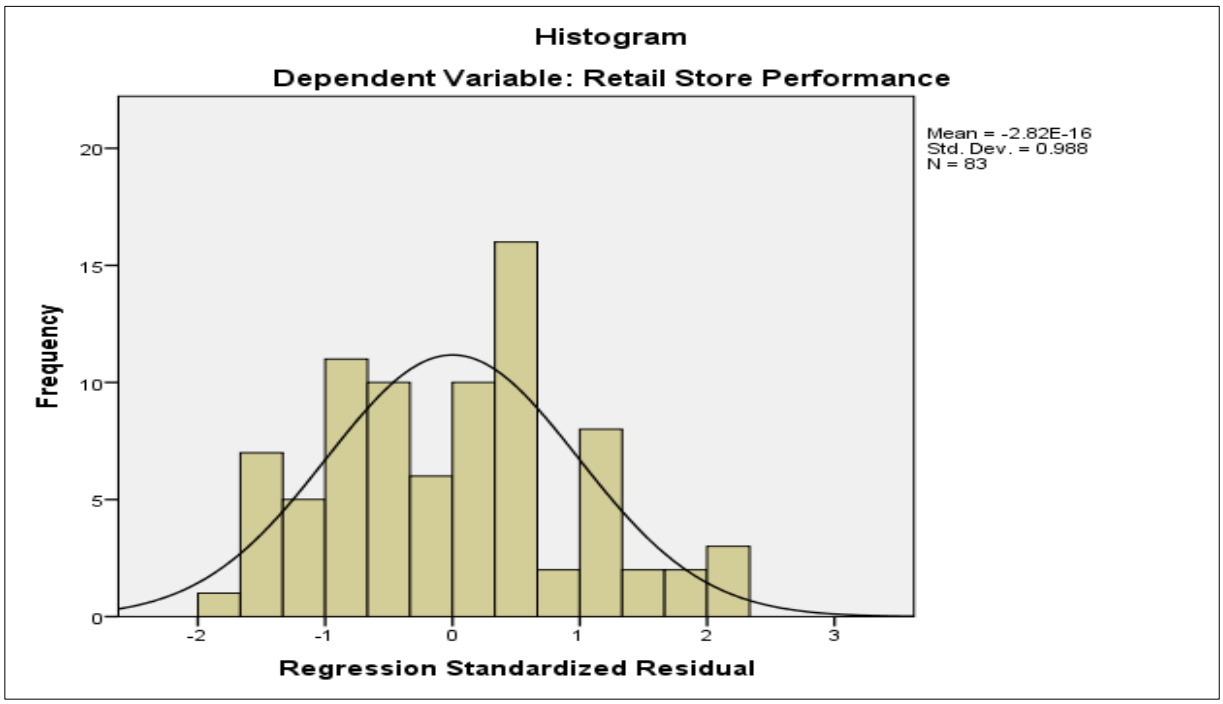


Source: Survey data (2024)

The post – estimation of the regression model estimating the moderator effect of dynamic capabilities on relationship between omnichannel retailing and performance of studied retail stores was undertaken. The standardized residuals were graphically plotted against normal

probability line to create a histogram that reveals the normality of the research model as indicated in figure 4.2.

Figure 4.2: Histogram plot for moderating model in relation to large scale retail stores performance



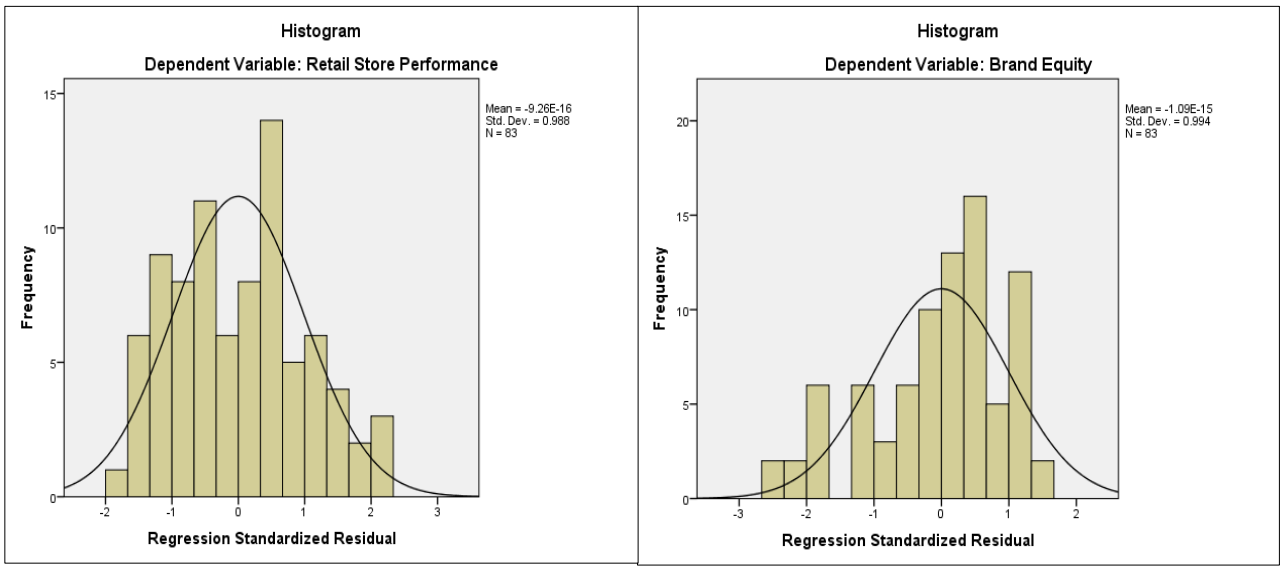
Source: Survey data (2024)

The study found that as indicated in figure 4.2, the moderating effect of dynamic capabilities between omnichannel retailing and large scale retail store performance regression model residuals are not skewed to the either direction, hence does not violate the normality assumption. This indicates that the model meets the normality assumption desired in linear regression models and the normal distribution line shows normality in the model.

The post – estimation of the mediation regression model estimating the brand equity effect on the relationship between omnichannel retailing and large scale retail store performance was undertaken. The standardized residuals were graphically plotted against normal probability

line to create a histogram that reveals the normality of the research model as illustrated in Figure 4.3.

Figure 4.3: Histogram plots for models 4 and 5 for stores performance and brand equity



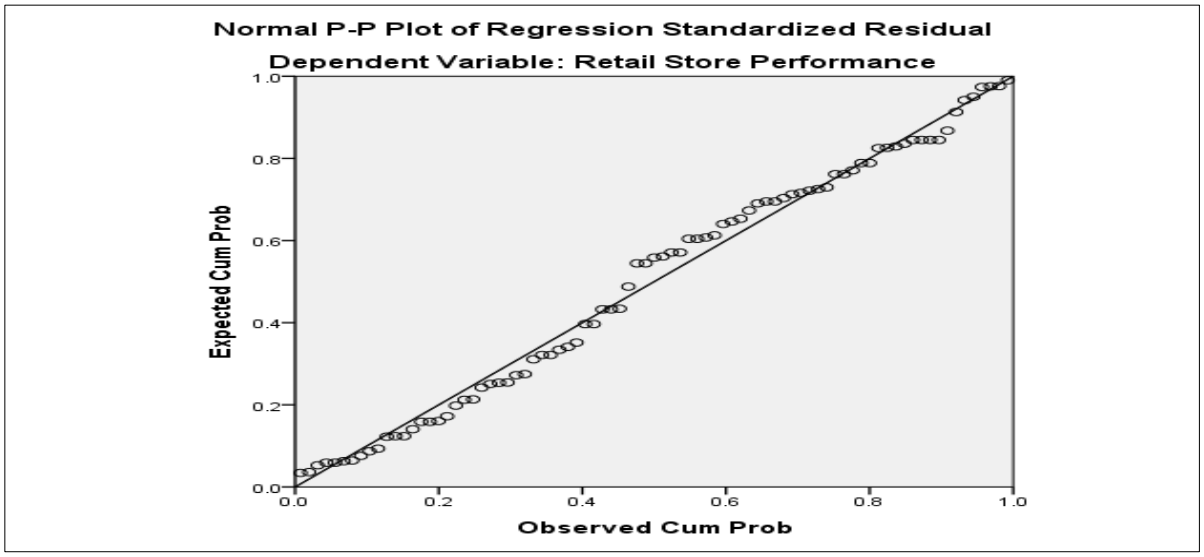
Source: Survey data (2024)

The study found that as shown above in Figure 4.3, brand equity, omnichannel retailing, and retail performance residuals are very slightly skewed towards the negative side of the normal curve but the brand equity and omnichannel retailing was observed to be slightly skewed towards the right of a normal curve. The skewness was observed as not enough to violate the normality assumption at 95% confidence level, hence does not affect the normality assumption. This confirms that the model meets the normality assumption desired in linear regression that assumes a normal distribution for the model residuals.

Further, an assessment of the linear distribution for the direct model was done to examine the model fit of linear regression. This was accomplished through creating a normal P-P plot as shown in Figure 4.4. According to the study, the data was normally distributed. This

interpretation was made from the observation that the data points for the regression model between omnichannel order fulfilment, omnichannel integration, omnichannel services configuration and large scale retail stores performance, were clustered along the diagonal line. It was also observed that data points were all symmetrically grouped along the horizontal line. This shows that the data attains the normality assumption as shown in figure 4.4.

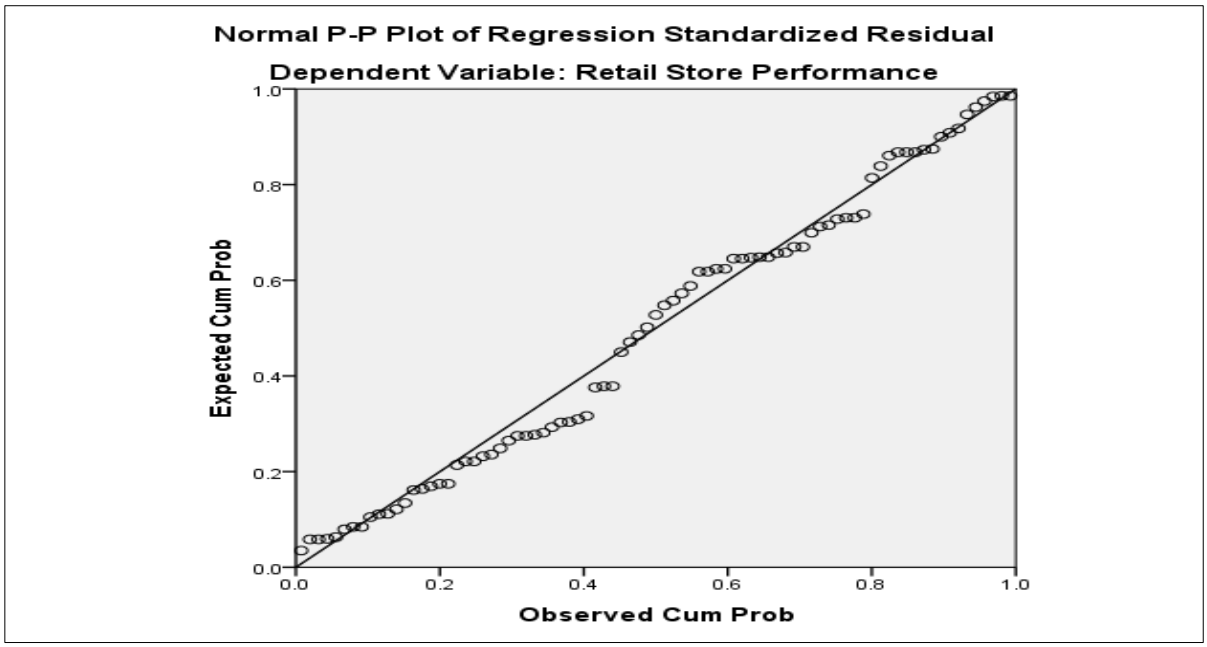
Figure 4.4: Normal P-P plots for model 1 in relation to large scale retail stores performance



Source: Survey data, (2024)

Linearity test was done to establish whether moderating models comply with assumption of normality in multiple linear regression. It was achieved through a normal P-P plot shown in Figure 4.5.

Figure 4.5: Normal P-P plot for moderating model in relation to large scale retail stores performance

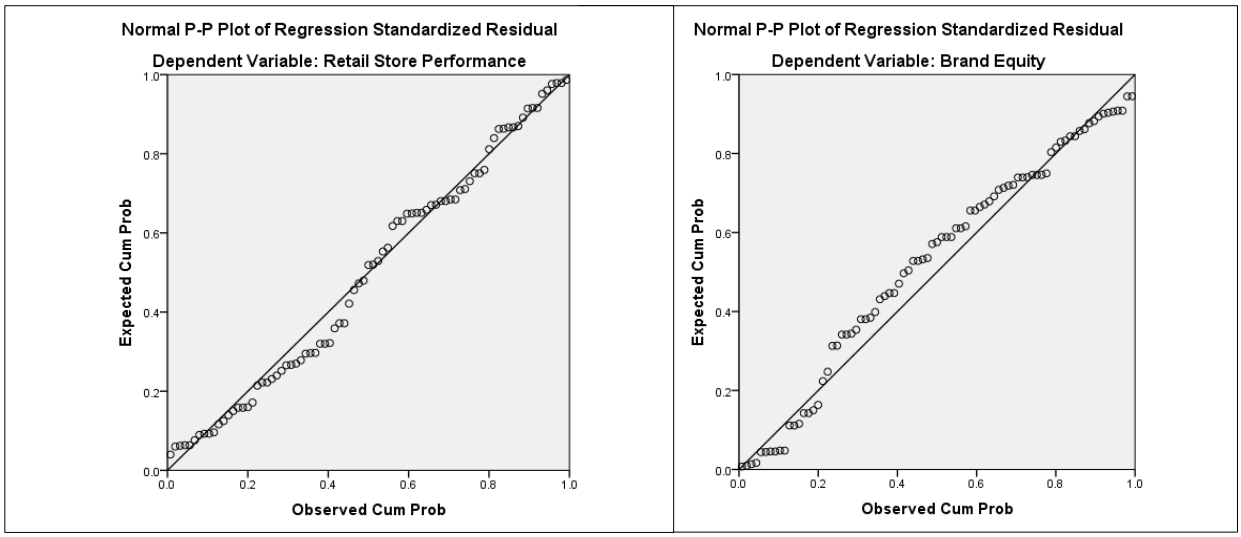


Source: Survey data, (2024)

The study established that the observed and expected probabilities were linear and normally distributed with a positive incline in the moderating model. The data points were found to be symmetrically aggregated around the horizontal line, showing linearity, and near to the diagonal line indicating normality.

The study conducted a linearity test to ascertain if the mediating model complies with the normality assumption in multiple linear regression, as demonstrated in Figure 4.6.

Figure 4.6: Normal P-P plot for models 4 and 5 for large scale retail stores performance and brand equity



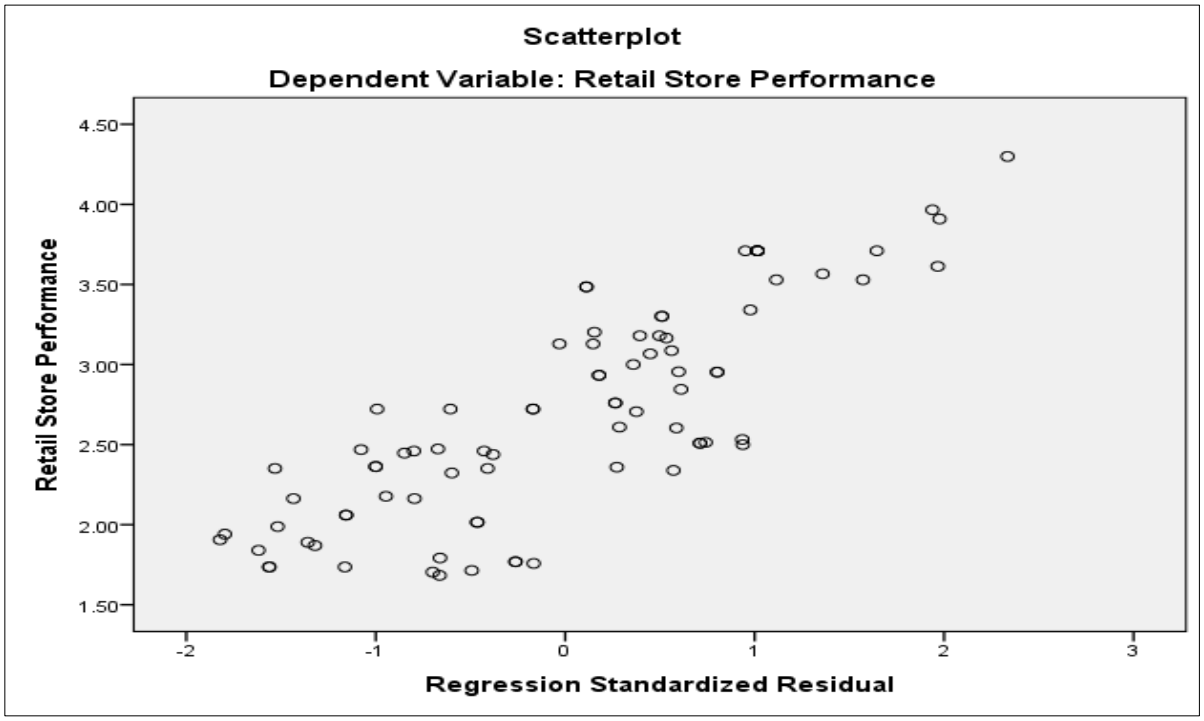
Source: Survey data, (2024)

The study established that observed and expected probabilities were linear and normally distributed with a positive incline. The data points were found to be symmetrically grouped along horizontal line, and near diagonal line thus confirming linearity. This therefore confirms that the regression model attains assumption of normal distribution.

4.4.3 Linearity Test

Gaol, Kadry and Li (2014) states that a rise of predictor variable should lead to a rise of the dependent variable, if two variables show linear relationship. The violation would affect the accuracy of prediction and inference of relationships of the variables. Through a scatter plot, the study further assessed the model fits by plotting the predicted and residual scatter plots realized in the linear regression model between omnichannel order fulfilment, omnichannel integration, omnichannel services configuration, and the retail stores performance. These scatter plots are presented in figure 4.7.

Figure 4.7: Scatter plots for model 1 in relation to large scale retail stores performance

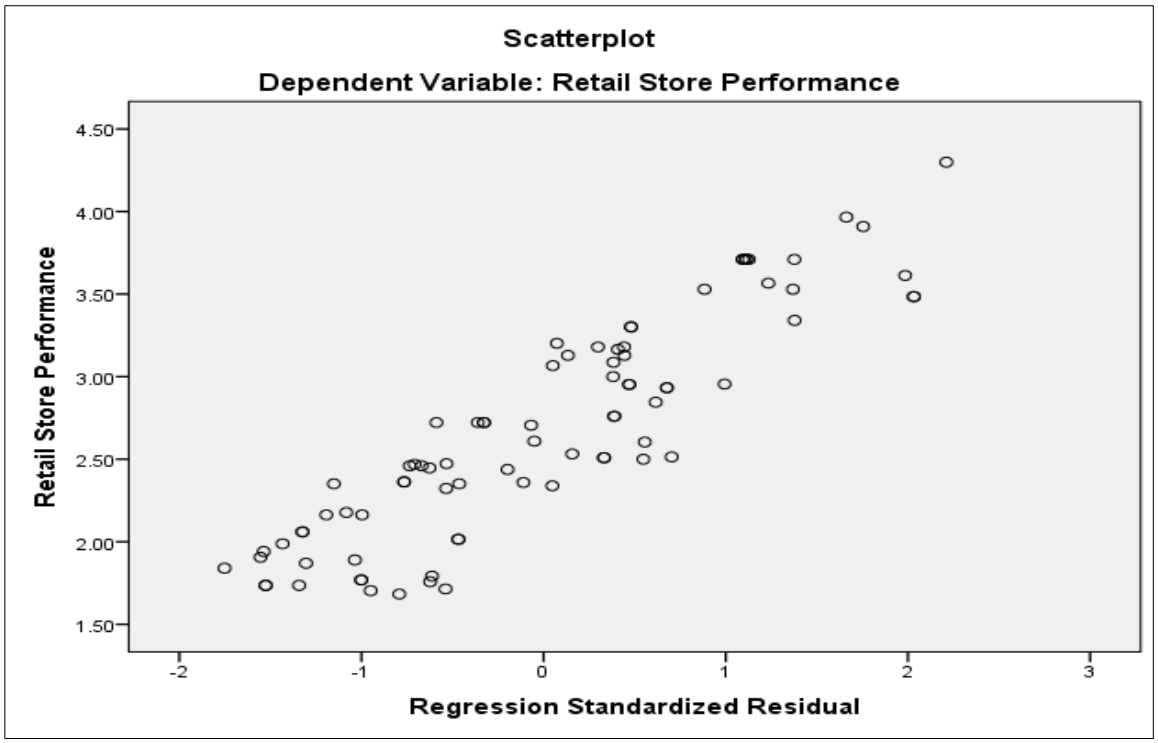


Source: Survey data, (2024)

As indicated in Figure 4.7, the study observed that the plot of standardized predicted values against retail stores performance and standardized residuals against performance revealed that the regression model for the chart on the left is slightly close with a slight positive slope. This confirms presence of a correlation between the model's predictions and its actual results. The model for the chart on the right of figure 4.7 is slightly better, with the model's standardized residuals having closer plots with residuals being scattered randomly around zero. The model thus holds true that as omnichannel integration and omnichannel services configuration increases, so does the retail stores performance.

Further, the study also plotted the predicted vs residual scatter plots. This revealed the discrepancy between the real and the predicted information in the moderating regression model. The realized scatter plots are as illustrated in Figure 4.8.

Figure 4.8: Scatter plot for moderating model in relation to large scale retail stores performance

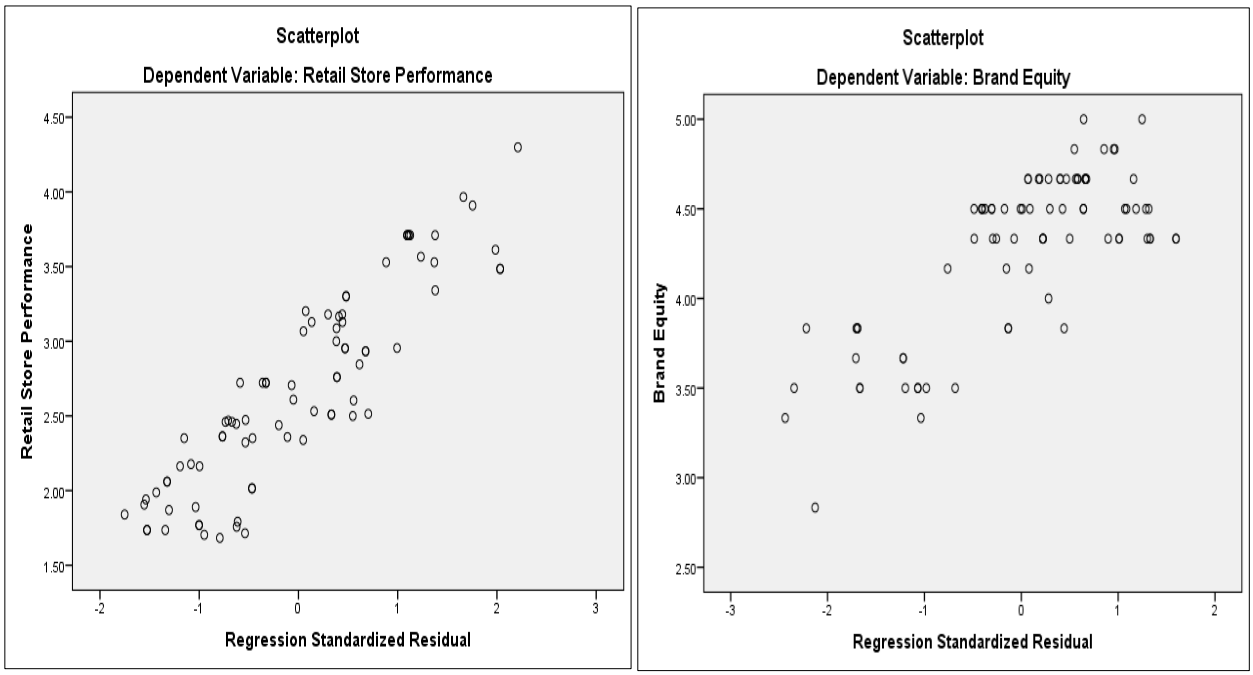


Source: Survey data, (2024)

As presented in Figure 4.8, the study observed that the plot of standardized predicted values against retail stores performance and standardized residuals against performance revealed that the regression model for the chart on the left is slightly close with a slightly positive slope. This confirms correlation between moderating model's predictions and its actual results, as was revealed in the moderating regression model. The model for the chart on the right is slightly better; with the model's standardized residuals having closer plots with residuals being scattered randomly around zero. The model thus holds true that as dynamic capabilities and omnichannel retailing increases, so does the retail stores performance.

The study created scatter plots to assess how the model matches with the assumed linearity of the mediator linear regression model. This was realized by scatter plots illustrated in Figure 4.9.

Figure 4.9: Scatter plots for models 4 and 5 for large scale retail stores performance and brand equity



Source: Survey data, (2024)

The assessment outcome was four scatter plots, two for actual versus predicted models for model 4, where large scale retail stores performance is the dependent variable and the other two for actual versus predicted models for model 5, where brand equity as dependent variable. This research observed that the plot of standardized predicted values against retail stores performance and standardized residuals against performance revealed that the regression model for the chart on the left is slightly close with a very slight positive slope, while the one on the left has a very defined and clear positive slope. This confirms presence of correlation

between the model predictions and actual results, as was revealed in the mediating regression model.

The standardized predicted values plot against brand equity and standardized residuals against brand equity revealed that the regression model for the chart on the left is very close with a clear positive slope, while the one on the left has a defined and clear positive slope. This confirms a strong correlation between mediating model's predictions and their actual results, as was revealed in the mediating regression model. This confirms that model 4 actual results presented on the left is slightly better than the predicted results, and that model 5 actual results are nearly like the predicted results. The models' standardized residuals have closer plots with residuals and are scattered randomly around zero, thus holds that as brand equity and omnichannel retailing increases, so does retail stores performance.

4.4.4 Autocorrelation Test

The study undertook an autocorrelation test to understand occurrences in regression models. According to Rehal (2024), it occurs when the error terms in the model exhibit correlation or dependency on each other, where errors in previous periods influence the errors in current period. The violation of test leads to biased standard errors, that cause incorrect statistical inferences (Field, 2009). The Durbin-Watson (DW) test was adopted, and it is a statistical method of identifying autocorrelation in regression model residuals (Durbin and Watson, 1951). The value of DW varies from 0 to 4, with DW statistics above 2 showing no autocorrelation in the residuals (Field, 2009). The DW autocorrelation test was undertaken from the study regression models whose outcomes are presented in table 4.15.

Table 4.15: Durbin-Watson test of autocorrelation

Model		Auto-correlation Tests	Durbin-Watson
1.	Independent variable	Omnichannel Integration/Omnichannel Order Fulfilment/Omnichannel Services Configuration	2.146
a. Dependent Variable: Retail Stores Performance			
2.	Moderator model	Dynamic Capabilities/ Omnichannel Retailing	
3.		Dynamic Capabilities, Omnichannel Retailing, OR_DC Moderator	1.966
a. Dependent Variable: : Retail Stores Performance			
4.	Mediator Model	Omnichannel Retailing	1.978
5		Brand Equity	1.843
		a. Dependent Variable: : Retail Stores Performance	
6.		Omnichannel Retailing	1.979
		a. Dependent Variable: Brand Equity	

Source: Survey data, (2024)

As indicated in table 4.15, the joint regression model for omnichannel Integration/ Omnichannel Order Fulfilment/ Omnichannel Services Configuration against retail stores performance where a DW statistic of 2.146 was realized indicating no significant autocorrelation, with a slight tendency toward negative autocorrelation. The moderator model (DW = 1.966 - no significant autocorrelation); and the mediator model (Dependent vs Independent - DW = 1.978 - no significant autocorrelation; Dependent vs Mediator - DW = 1.843 - slight positive autocorrelation, though it is not severe; and Independent against

Mediator - DW = 1.979 - no significant autocorrelation); all revealed that the regression models in the study are free of auto correlation. This confirms that residuals in our variables and regression models are largely independent, satisfying the assumption of no autocorrelation. Therefore, the regression results, including coefficient estimates, standard errors, and hypothesis tests, are reliable and no specific corrective actions are needed for autocorrelation, though further diagnostics can be performed to confirm the model's robustness.

4.4.5 Multicollinearity Test

Multicollinearity exists when there is high correlation in explanatory variables (Kothari, 2011). The existence of inter-correlation among the independents variables can be too high causing inseparable effects which leads to the multicollinearity problem (Hair et al., 2014). The violation leads to unstable and unreliable coefficient estimates. The variance inflation factor (VIF) and tolerance were used testing multicollinearity among predictor variables. VIF values beyond 10 and tolerance values under 0.1 indicated existence of multicollinearity. The outcomes of this test are shown in Table 4.16.

Table 4.16: Tolerance values and the Variance Inflation Factor for multicollinearity

Model		Variables	Collinearity Statistics		Comment
			Tolerance	VIF	
1	Independent variable	Omnichannel Integration	.325	3.079	No multicollinearity
		Omnichannel Order Fulfilment	.665	1.504	No multicollinearity
		Omnichannel Services Configuration	.354	2.823	No multicollinearity
	a. Dependent Variable: Performance of Large Scale Retail Stores				
2	Moderator model (hierarchical)	Omnichannel Retailing	.539	1.855	No multicollinearity
		Dynamic Capabilities	.539	1.855	No multicollinearity
3		Omnichannel Retailing	.505	1.979	No multicollinearity
		Dynamic Capabilities	.516	1.938	No multicollinearity
		OR_DC Moderator	.743	1.346	No multicollinearity
	a. Dependent Variable: Performance of Large Scale Retail Stores				
4	Mediator model	Omnichannel Retailing	1.000	1.000	Single variable model
5		Brand Equity	1.000	1.000	
		a. Dependent Variable: Performance of Large Scale Retail Stores			
6		Omnichannel Retailing	1.000	1.000	Single variable model
		a. Dependent Variable: Brand Equity			

Source: Survey data, (2024)

As illustrated in table 4.15, the multicollinearity assumption was tested in all the regression models which revealed that with the large scale retail stores performance as dependent variable, Channel Integration (T .325; VIF 3.079); Omnichannel Order Fulfilment (T .665; VIF 1.504); and Omnichannel Services Configuration (T .354; VIF 2.823), all do not reveal

any multicollinearity problems as they show tolerance higher than 0.20 and VIF is lower than 4.0. The moderator model shows that omnichannel retailing (T .539; VIF 1.855) and dynamic capabilities (T .539; VIF 1.855) lacks the multicollinearity problem, and when the moderator variable is added, this problem does not arise (Omnichannel Retailing T .505; VIF 1.979; Dynamic Capabilities T .516; VIF 1.938; OR_DC Moderator T .743; VIF 1.346). However, the regression models in a mediator relationship are a single variable model, hence have no possibility of encountering multicollinearity issues, with omnichannel retailing (T 1.00; VIF 1.00) and brand equity (T 1.00; VIF 1.00) showing no multicollinearity when regressed against retail stores performance; and omnichannel retailing (T 1.00; VIF 1.00) showed no multicollinearity issues when regressed against brand equity. The outcome demonstrates lack of multicollinearity in all the regression models.

4.4.6 Homoscedasticity Test

The study examined the assumption of homoscedasticity in the model were met. The assumptions are constant error variance and independence of the independent variables. The violation undermines standard error's reliability, causing biased significance tests and incorrect conclusions (Kothari ,2011). In this study, Breusch Pagan/ Cook-Weisberg (BP/CW) test was applied. It has the null hypothesis (H_0: constant variance of error), which indicates that independent variables have constant error variance. Therefore, finding statistical significance implies rejecting the null hypothesis and no assumption of homoscedasticity (Hair et al., 2014). The BP-CW test is presented in table 4.17.

Table 4.17: Breusch - Pagan Cook-Weisberg test for heteroscedasticity

Homoscedasticity Coefficients **Breusch-Pagan / Cook-Weisberg test for heteroscedasticity (BP/CW test)**			
Model		**Chi Square**	**Prob. X^2**
1.	Omnichannel Integration/Omnichannel Order Fulfilment/ Omnichannel Services Configuration	2.09	.1485
2.	Omnichannel Retailing/Dynamic Capabilities/Moderator Variable OrxDC	.10	.7571
3.	Brand Equity	.33	.5675
4.	Omnichannel Retailing	.20	.6563
	Variables: fitted values of retail stores performance *H_0: Constant variance (Variables: fitted values of retail stores performance)*		
5	Omnichannel Retailing	3.71	.096
	Variables: fitted values of Brand Equity *H_0: Constant variance (Variables: fitted values of brand equity)*		

Source: Survey data, (2024)

From the outcomes presented in Table 4.17, all the regression models indicated the P-values for the Chi-square tests in BP-CW test is greater than 0.05, thus failure in rejecting null hypothesis in entire models (omnichannel integration/omnichannel order fulfilment/ omnichannel services configuration, X^2 =2.09, p = .1485; omnichannel retailing/dynamic capabilities/moderator variable, ORxDC - X^2 = .10, p = .7571; and brand equity , X^2 = .33, p= .5675; with large scale retail stores performance as dependent variable, as well as omnichannel retailing (X^2 = 3.71, p = .096) with and brand equity as the outcome variable. The homoscedasticity test fails to reject the null hypotheses for all study models confirming that the variance is the same across different groups being compared in the regression models and homoscedasticity is present in the model, meaning that the reliability of inferential statistics is

ensured in the models as there is no violations which may lead to biased parameter estimates and incorrect conclusions.

4.5 Correlation Analysis

In determination of the degree and direction on relationship between the variables, the study employed correlation analysis, as suggested by (Cooper and Schindler ,2013). Schober, Boer and Schwarte (2018), stated that the correlation between 0.9 and 1 is very strong, 0.7 to 0.89 as strong, 0.4 to 0.69 as moderate. Pearson's correlation coefficients are presented in Table 4.18.

Table 4.18: Pearson's correlation coefficients

Correlations		Retail stores Performance	Omnichannel Integration	Omnichannel Order Fulfilment	Omnichannel Services Configuration	Brand Equity	Dynamic Capabilities
Retail stores Performance	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	83					
Omnichannel Integration	Pearson Correlation	.699**	1				
	Sig. (2-tailed)	.000					
	N	83	83				
Omnichannel Order Fulfilment	Pearson Correlation	.350**	.571**	1			
	Sig. (2-tailed)	.001	.000				
	N	83	83	83			
Omnichannel Services Configuration	Pearson Correlation	.677**	.301**	.414**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	83	83	83	83		
Brand Equity	Pearson Correlation	.522**	.585**	.336**	.309**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	83	83	83	83	83	
Dynamic Capabilities	Pearson Correlation	.545**	.284**	.412**	.286**	.291**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	83	83	83	83	83	83

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data (2024)

The findings from table 4.18 revealed moderate positive correlation coefficients that are all statistical significant between retail stores performance and omnichannel integration (r=.699; p=.00) showing a strong positive correlation (0.699) with retail store performance, indicating

that integration across retailers channels improves performance; omnichannel order fulfilment (r=.350; p=.00) showing a positive correlation (0.350) with retail store performance, indicting order fulfilment across the channel enhance performance ; omnichannel service configuration (r=.677; p=.00) showing a strong positive correlation (0.677) with retail store performance, indicating that well designed service configuration across retailers channels improves performance. Brand equity (r=.522; p=.00), and dynamic capabilities (r=.545; p=.00) have moderate correlation implying that brand equity and dynamic capabilities within the firm enhance retail store performance. This reveal presence of linear relationship among the omnichannel retailing, brand equity, dynamic capabilities and performance of large scale retail store.

4.6 Hypothesis Testing

This study was conducted under the assumption that the omnichannel retailing had significant effect on large scale retail store performance in Nairobi City County, Kenya. The moderating effects of dynamic capabilities and mediating effects of brand equity was assumed on the relationship between omnichannel retailing and performance of retail stores. The multiple regression analysis was utilized to test these assumptions through use of adjusted R^2 and P-values.

4.6.1 Test of Direct Relationship

The study established the effect of omnichannel retailing comprising of omnichannel services configuration, omnichannel order fulfilment, and omnichannel integration, on the performance of large scale retail stores which necessitated undertaking an OLS regression. The findings are shown in Table 4.19.

Table 4.19: Empirical Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.569	.324	.298	.55572	2.067

Source: Survey data, (2024)

The model summary shown in Table 4.19 reveals the correlation coefficient (R) is 0.569 indicating that omnichannel retailing and performance of large scale retail stores are positively correlated. The coefficient of determination (adjusted R^2 =.298) revealed that the three variables of omnichannel retailing (omnichannel integration, omnichannel order fulfilment, and omnichannel services configuration) account for 29.8% of the variability in large scale retail stores performance. However, other variables that were not included in the model explained 70.2% of the variance in the performance of large retail outlets.

The 29.8% variation can be attributed by the dominance usage of conventional retailing channels due to accessibility, personal interactions and customer preference. Many consumers have developed mistrust on omnichannel retailing due to unclear return and refund policies, and sharing of personal details. The culmination of low technology infrastructure in retail and consumer behaviour have led to low adoption omnichannel retailing by retailers and shoppers, thus its marginal effects on performance. The contextual variation of omnichannel retailing has a greater effect on explaining performance. The developed nations with higher adoption rate tend to have greater variation in explaining performance. This is evident in the descriptive statistics where only 43.4% of large scale retail store have in-house Mobile app, while 83.1 % are using third-party mobile apps to facilitate omnichannel retailing. In addition, only 19.3% of the studied large scale retail stores have other in-store technologies enabling them to conduct online purchase and distribution.

Table 4.20: Empirical Model ANOVA

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.696	3	3.899	12.625	.000[b]
	Residual	24.397	79	.309		
	Total	36.094	82			

a. Dependent Variable: Performance of Large Scale Retail Stores
b. Predictors: (Constant)

Source: Survey data, (2024)

The findings in table 4.20 reveals F statistic value = 12.625, (P = 0.000) at 95% confidence level as fit to predict the relationship between omnichannel integration, omnichannel order fulfilment, omnichannel services configuration and performance of large scale retail stores performance. This confirms omnichannel retailing ability to impact the performance of studied retail stores as noted in the goodness of fit model as significant.

The regression model coefficients examine the effects of omnichannel retailing (omnichannel integration, omnichannel order fulfilment, and omnichannel services configuration) on the dependent variable (large scale retail stores performance). The findings are shown in Table 4.21.

Table 4.21: Empirical Model Coefficients

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval	
	B	Std. Error	Beta			Lower	Upper
(Constant)	-.221	.632		-.350	.727	-1.479	1.037
Omnichannel Integration(OCI)	.772	.221	.568	3.498	.001	.333	1.211
Omnichannel Order Fulfilment(OOF)	-.249	.154	-.183	-1.614	.111	-.557	.058
Omnichannel Services Configuration(OSC)	.145	.214	.105	2.677	.024	.081	.571
a. *Dependent Variable: Performance of Large Scale Retail Stores(FP)*							

Source: Survey data, (2024)

The regression model demonstrated in table 4.21 indicates that omnichannel integration (β = 0.772; p= 0.001) and omnichannel services configuration (β = 0.145; p=0.024) showing significant positive regression coefficients (P<0.05) confirming that the coefficients are significant. These results lead to rejection of two null hypothesis testing for these effects. The research rejected the null hypothesis: *H_{01}: Omnichannel integration has no significant effects on the performance of large scale retail stores in Nairobi City County, Kenya*; Therefore, confirming a significant effect of omnichannel integration on the performance of large scale retail stores. Similarly, the research rejected the null hypothesis: *H_{03}: Omnichannel service configuration has no significant effect on the performance of large scale retail stores in Nairobi city county, Kenya*; with the realization that there is a significant effect of omnichannel services configuration on the performance of large scale retail stores.

However, omnichannel order fulfilment was observed to have an insignificant negative regression coefficient (β = -0.249; p=0.111) that was none significant (P>0.05) consequently dropping it from the model. The results lead to not rejecting the null hypothesis (*H_{02}: Omnichannel order fulfilment has no significant effect on the performance of large scale retail stores in Nairobi City County, Kenya*). Thus, no significant effect of omnichannel order fulfilment on the performance of large scale retail stores as the study confirmed that it's coefficient at p=0.111.

Upon the removal of omnichannel order fulfilment in the model, it was observed that omnichannel integration (β 0.772; p=0.001) had the greatest effects followed by omnichannel services configuration (β 0.145; p= 0.024) on the model. Final model had significant P- values of the variables (omnichannel integration P=0.001 and omnichannel service configuration P=0.009). The study therefore confirms that omnichannel integration and omnichannel services configuration had significant effect on large scale retail stores performance as indicated in the regression model. Excluding the omnichannel order fulfilment variable, regression model of this relationship can be illustrated as:

FP = 0.772 OCI + 0.145 OSC + ε

4.6.2 Hypothesis One

The first null hypothesis tested stated that omnichannel integration has no significant effects on the performance of large scale retail stores in Nairobi City County, Kenya. The finding in Table 4.21 indicates (p= 0.001 < 0.05) significance level. This study therefore rejects null hypothesis concluding that omnichannel integration has significant effect on the performance of large scale retail stores in Nairobi City County, Kenya with 0.05 significance level.

The table 4.21 indicate coefficient of omnichannel integration of 0.772 implying that an increase in omnichannel integration holding all other variables constant at zero, resulting to 0.772 rise in performance of large scale retail stores. Omnichannel integration is a key component of omnichannel retailing which has been widely linked by researchers such as Le & Nguyen-Le, 2020; Li & Gong, 2022 in accessing seamless shopping experience for customers; and thus, regarded as a factor that would positively affects the retail stores performance. These outcomes confirm observations made by Lazaris *et al.* (2021); Gao and Huang (2021); and Li and Gong (2022) who studied this relationship in different sectors and found that channel integration is integral in optimization of omnichannel retailing. Gao and Huang (2021) found that omnichannel integration positively impacted the receptiveness to relationship program and engagement of customers, which had an overall impact on customer loyalty and consequently firm performance. Moreover, the results are in concurrence to Zhang *et al.* (2018), who found that omnichannel integration promotes consumer empowerment, which boosts consumer satisfaction, trust, and increased consumer intentions to patronage, leading to improved performance.

4.6.3 Hypothesis Two

The second null hypothesis tested stated that omnichannel order fulfilment has no significant effect on the performance of large scale retail stores in Nairobi City County, Kenya. The findings in Table 4.21 indicate ($p= 0.111 > 0.05$) significance level. This study failed to reject the null hypothesis concluding that omnichannel order fulfilment has no significant effect on performance of large scale retail stores in Nairobi City County, Kenya.

The table 4.21 indicates coefficient of omnichannel order fulfilment at -0.249 implying that an increase in omnichannel order fulfilment holding other variables constant at zero would lead

to -0.249 insignificant decrease in performance of large scale retail stores. This means that despite omnichannel order fulfilment being a key part of omnichannel retailing, it's effect on the performance of large scale retail stores were confirmed to be negative and lacks significance. Therefore, changes in omnichannel order fulfilment do not lead to significant changes in the performance.

This finding negates observations made by Fisher *et al.* (2019) and Riaz *et al*. (2021) in studies they undertook in different sectors where they found statistically significant effects on performance. The findings align to the studies of; Liu *et al*. (2023), that use of both BORS and BOPS order fulfilment strategies may have negative effects on businesses and customers; Galipoglu *et al*. (2018) who observed logistics and the smooth flow of order fulfilment are regarded as the major challenges in omnichannel retailing, hence has been observed to negatively impact performance. Therefore, this study has found that omnichannel order fulfilment does not affect performance of large scale retail stores in Kenya.

4.6.4 Hypothesis Three

The third hypothesis tested was that omnichannel service configuration has no significant effect on the performance of large scale retail stores in Nairobi City County, Kenya. The findings in Table 4.21 indicate ($p = 0.024 < 0.05$) significance level. The study thus leads to rejection of null hypothesis concluding that omnichannel service configuration has significant effect on the performance of large scale retail stores.

The table 4.21 indicate the coefficient of omnichannel service configuration of 0.145 implying that an increase in omnichannel service configuration holding other variables constant at zero would lead to 0.145 rise in performance. The presence of positive and significant regression coefficient with performance of large scale retail stores ($\beta = 0.145$; $p=0.024$); The study

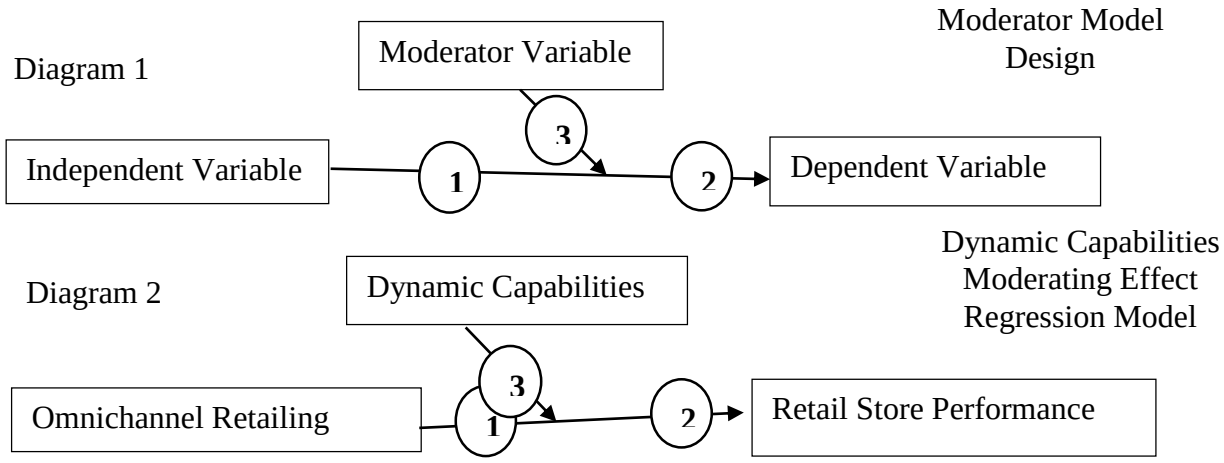
therefore rejected null hypothesis deducing that omnichannel services configuration had significant effect on performance of large scale retail stores. Therefore, improvement in omnichannel services configuration causes improvement in large scale retail stores performance. The finding aligns with Lee *et al*. (2019), Ren *et al.* (2023) and Quach *et al.* (2022) that revealed that configuration of channel services positively affected customer experience and engagement level. Additionally, Gao *et al.* (2021) observed that convenience of channel and seamlessness has positive effects on firm performance. Omnichannel services configuration was therefore confirmed to positively affect the performance of large retail stores.

4.6.5 Hypothesis Four

The fourth hypothesis examined moderating effects of dynamic capabilities on the relationship between omnichannel retailing and large scale retail stores performance. The relationship between variables was assessed through a hierarchical multiple linear regression analysis. The moderator assessment design adopted in this study is as shown in diagrams 1 and 2 in Figure 4.10. Model 1 shows the relationship between omnichannel retailing and performance of large scale retail stores. Model 2 shows the relationship between omnichannel retailing and dynamic capabilities joint effect on retail stores performance, the Model 3 indicate regression model of the relationship between omnichannel retailing, dynamic capabilities, and the moderator XM_o effects on large scale retail stores performance. Moderator variable (XM_o) is a centred product of omnichannel retailing and dynamic capabilities with centring done through finding $(X_1 - \overline{X_1})(X_2 - \overline{X_2})$ where X_1 and X_2 are the predictor and moderating variables respectively; thus, creating the moderator variable. Confirming presence of moderator influence, models 1,

2, and 3 shown in Figure 3.1 must have statistically significant coefficients. These hypothesized models 1, 2 and 3 are diagrammatically presented in figure 4.10.

Figure 4.10: Moderator Regression Model



Source: Author, (2024)

The figure 4.10 indicates models (Model 1, 2 and 3) that were derived through a hierarchical regression analysis with aim to establish moderation effects of dynamic capabilities, between omnichannel retailing and large scale retail store performance. The first part of the regression output summarizes model 11 (omnichannel retailing on large scale retail stores performance), showing correlation (R), coefficient of determination (R^2), adjusted (R^2) and standard errors. Model 2 (omnichannel retailing and dynamic capabilities joint effect on large scale retail stores performance) and model 3 (omnichannel retailing, dynamic capabilities, and the moderator XM_o influence on large retail stores performance).

The model summary for the regression between omnichannel retailing, dynamic capabilities, the moderator XM_o, and large scale retail stores performance. Table 4.22 show the outcomes.

Table 4.22: Model Summary

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.437[a]	.191	.181	.60039
2	.443[b]	.196	.176	.60224
3	.444[c]	.197	.166	.60580

a. Predictors: (Constant), *Omnichannel Retailing*
b. Predictors: (Constant), *Omnichannel Retailing, Dynamic Capabilities*
c. Predictors: (Constant), *Omnichannel Retailing, Dynamic Capabilities, XM_o Moderator*

Source: Survey data, (2024)

Table 4.22 indicates that performance of large scale retail stores had 0.437 correlation index after regressing against omnichannel retailing, showing relationship between large scale retail stores performance and omnichannel retailing. It was shown by a coefficient of determination (adjusted R^2) at 0.181 when omnichannel retailing is regressed against retail stores performance showing that omnichannel retailing explains 18.1% of the variance in large scale retail stores performance. Model 2 shows the relationship between omnichannel retailing, dynamic capabilities and retail stores performance. The model had correlation (R = 0.443) and the coefficient of determination (adjusted $R^2 = 0.176$).

This indicates that omnichannel retailing coupled with dynamic capabilities ability to explain 17.6% the variance in retail stores performance. Model 3, which explained moderating effect, had correlation coefficient (R = 0.444) with coefficient of determination (adjusted $R^2 = 0.166$) that shows the model capability of explaining 16.6% variability in large scale retail stores performance. This shows a positive effect of dynamic capabilities as a moderator between omnichannel retailing and the performance of large scale retail stores. Table 4.23 shows the outcomes of the ANOVA analysis.

Table 4.23: ANOVA for Dynamic Capabilities, Omnichannel Retailing and Performance

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.896	1	6.896	19.132	.000[b]
	Residual	29.198	81	.360		
	Total	36.094	82			
2	Regression	7.078	2	3.539	9.758	.000[c]
	Residual	29.015	80	.363		
	Total	36.094	82			
3	Regression	7.101	3	2.367	6.450	.001[d]
	Residual	28.993	79	.367		
	Total	36.094	82			

a. Dependent Variable: *large scale retail stores performance*
b. Predictors: (Constant), *Omnichannel Retailing*
c. Predictors: (Constant), *Omnichannel Retailing, Dynamic Capabilities*
d. Predictors: (Constant), Omnichannel Retailing, Dynamic Capabilities, XM_o Moderator

Source: Survey data, (2024)

As indicated in the table 4.23 ,the three models realized p-values below 0.05 indicating that for model 1, omnichannel retailing effects on large scale retail stores performance as significant; for model 2, joint effects of omnichannel retailing and dynamic capability on large scale retail stores performance at 95% confidence level (P<0.05; P=0.000) as significant; and for model 3, (p = 0.001) moderating effect of dynamic capability on relationship between omnichannel retailing and large scale retail stores performance relationship as significant, thus rejecting null hypothesis (H_{04}) indicating that *dynamic capabilities has no moderating effect on the relationship between omnichannel retailing and large scale retail stores performance*, the study has observed the presence of a significant moderating effect whose strength is observed in the regression model.

Table 4.24: Coefficients of Dynamic Capabilities, Omnichannel Retailing and Performance

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval	
	B	Std. Error	Beta			Lower	Upper
(Constant)	-.186	.660		.778	.778	-1.499	1.126
Omnichannel Retailing	.671	.153	.437	.000	.000	.366	.977
(Constant)	-.050	.689		-.073	.942	-1.422	1.322
Omnichannel Retailing	.772	.210	.503	3.683	.000	.355	1.190
Dynamic Capabilities	.136	.092	.097	2.108	.048	.051	.247
(Constant)	.059	.821		.072	.943	-1.574	1.693
Omnichannel Retailing	.759	.218	.494	3.482	.001	.325	1.192
Dynamic Capabilities	.147	.098	.104	2.241	.046	.054	.247
XM_o Moderator	.129	.057	.029	2.049	.049	.058	1.901
a. Dependent Variable: *Large scale retail stores Performance*							

Source: Survey data, (2024)

From the table 4.24, it was noted that omnichannel retailing has significant effect on large scale retail stores performance as illustrated in Model 1 having t-statistics and p-values below 0.05 (P=0.000) on the independent variable (omnichannel retailing), though the constant (P=0.778) is not significant, confirming that omnichannel retailing has a significant effect on large scale retail stores performance. Model 2 indicated joint effects where omnichannel retailing (p= 0.000) and dynamic capabilities (p = 0.048) showed a significant effect on large scale retail stores performance. Model 3 regression coefficients indicated that there was moderating effect of dynamic capabilities on the relationship between omnichannel retailing and large scale retail

stores performance. Thus, rejecting the null hypothesis (H_{03}), showing that all the coefficients are significant (constant p= 0.942; omnichannel retailing, p = 0.001; dynamic capabilities, p = 0.046; Moderator variable - XM_o p=0.049) showing p-values below 0.05. All three models indicate that every variable had positive coefficient. Therefore, dynamic capabilities have a positive moderating effect on the relationship between omnichannel retailing and large scale retail stores performance.

The moderator model can be written as:

Model 1: $FP = \beta_0 + \beta_1 OR_1 + \varepsilon$ …….. $FP = 0.671\, OR_1 + \varepsilon$

Model 2: $FP = \beta_0 + \beta_1 OR + \beta_2 DC + \varepsilon$ …… $FP = 0.772\, OR + 0.136\, DC + \varepsilon$

Model 3: $FP = \beta_0 + \beta_1 OR + \beta_2 DC + \beta_3 XM_o + \varepsilon$ … $FP = 0.759\, OR + 0.147\, DC + 0.129\, XM_o + \varepsilon$

Where: *FP = Performance of large scale retail stores in Nairobi City County;*

OR = omnichannel retailing;

DC = dynamic capabilities;

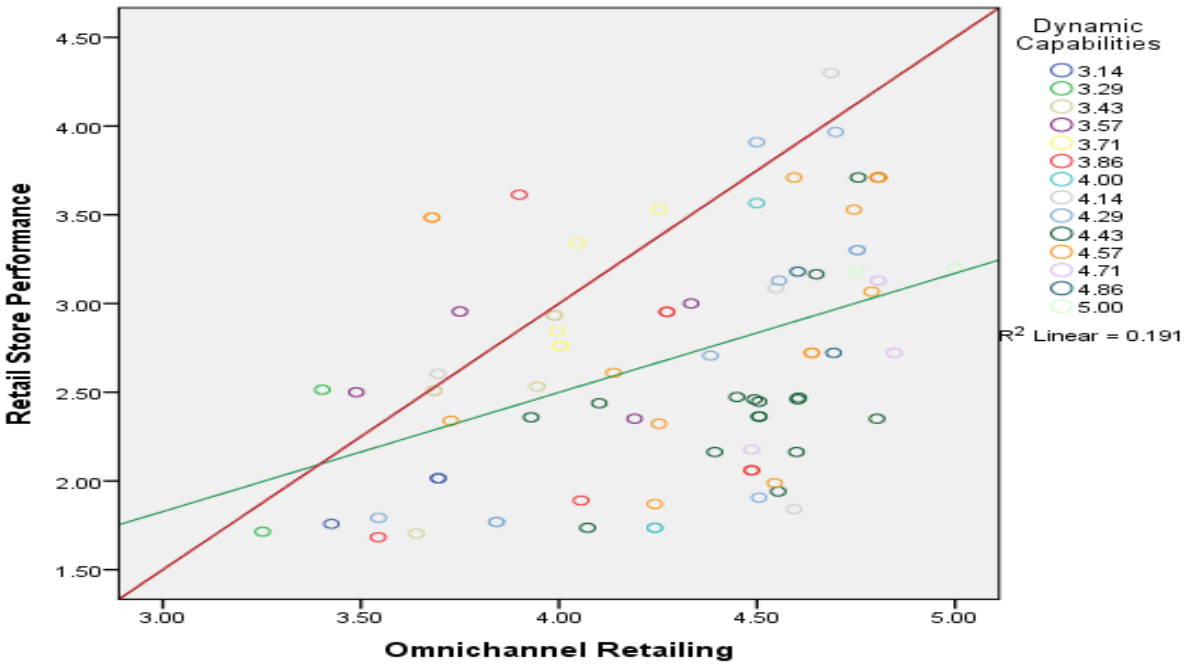
XMo = omnichannel retailing and dynamic capabilities interaction term;

ε = Error term (All the constant terms in the three models were found not to be significant).

The models demonstrate the moderating effect of dynamic capabilities on the relationship among omnichannel retailing and large scale retail stores performance as shown by model 3 significant effect with moderator factor (XM_o Moderator) coefficient at 0.129. This demonstrates that dynamic capabilities have strong moderating effects. The finding consent with Liu and Song (2023) and Solem *et al*. (2023) on the effects of dynamic capabilities in omnichannel retailing in the performance enhancement. The findings confirmed the views by Pezeshkan *et al*. (2016) which revealed that firm performance and new competitive advantages are generated by the organization dynamic capabilities through unique products, innovative

knowledge and process. Similar findings were observed by Oh *et al*. (2012) and Eriksson *et al*. (2022) who indicated possible influence of dynamic capabilities on organization performance. The study observed the moderator interaction effect of dynamic capabilities power on relationship between omnichannel retailing and large scale retail performance. The interaction effects happen when the value of a variable dependent upon another. The interaction effect is as shown in Figure 4.11.

Figure 4.11: Moderating model interaction plot



Source: Survey data, (2024)

As shown in figure 4.11, given that dynamic capabilities and omnichannel retailing variables were measured as continuous variables, there were many data-points to be plotted hence the scatter plots had multiple data points. In such instances, addition of fit lines helps to visualize the interaction points in the model where, to produce the plot, the high value and a low value for dynamic capabilities and omnichannel retailing were chosen and entered them into the equation. Both variables revealed positive coefficients against large scale retail stores

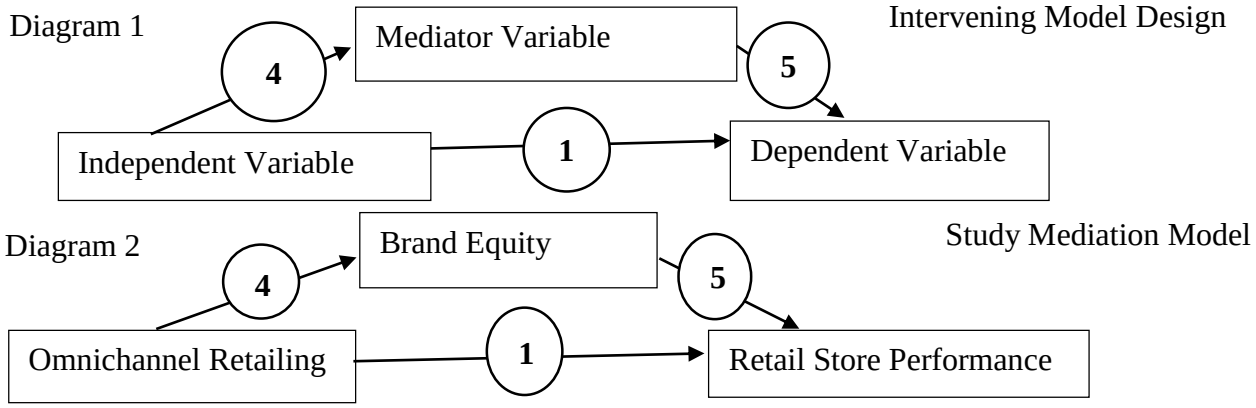
performance, the fitted lines had positive slopes that intersects, confirming presence of interaction between the two variables.

As indicated in the interaction plot above, the relationship between omnichannel retailing and large scale retail stores performance changes direction based on the dynamic capabilities of the store. For high levels of dynamic capabilities, a stronger relationship among omnichannel retailing and large scale retail stores performance while for low dynamic capabilities, the relationship is a lower, though it remains positive in both instances. The interaction plot therefore confirms that the moderation model shows that omnichannel retailing effects on studied retail stores performance changes based on the level of dynamic capabilities of the large scale retail stores.

4.6.6 Hypothesis Five

The mediating effects of brand equity were assessed on the relationship between omnichannel retailing and large scale retail stores performance. The mediating effect was examined through use of OLS regression model. As presented in Figure 4.12, the model revealed that the need to confirm the omnichannel retailing effects on performance of retail stores (model 1), the omnichannel retailing effects on brand equity (mediating variable) (model 4), and the brand equity effects on performance of large scale retail store when the omnichannel retailing is controlled (model 5), as highlighted in diagram 1. This was achieved through developing several regression models where mediating effects were measured. The first regression model is where omnichannel retailing was regressed against large scale retail stores performance, the second model was where omnichannel retailing was regressed against brand equity, while third model was where brand equity was regressed against large scale retail stores performance.

Figure 4.12: Brand Equity Mediator Regression Model



Source: Author (2024)

Mediating effect was examined through four-step regression model, examining the significance of coefficients at each step with four conditions (Hayes, 2013). The first condition indicates direct relationship among independent (x), and dependent (y) variables ($Y = \beta_0 + \beta_1 X + e$). The other condition indicates relationship among independent (x), and mediating (m) variable ($M = \beta_0 + \beta_1 X + e$). The third condition indicates relationship between the dependent (y), and mediator (m) variables ($Y = \beta_0 + \beta_2 X + \beta_3 M + e$). The last condition indicates that the first condition's coefficient should be greater than third condition's ($\beta_1 > \beta_3$), this aid in identification of indirect effect (β indirect $= \beta_1 - \beta_3$).

The regression model summary of mediating effect is represented below.

Table 4.25: Model Summary for Brand Equity, Omnichannel Retailing and Performance

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437[a]	.191	.181	.60039
4	.650[a]	.422	.415	.34881
5	.438[b]	.192	.172	.60380
1	*a. Predictors: (Constant), Omnichannel Retailing*			
	b. Dependent Variable: Large Scale Retail Stores Performance			
4	*a. Predictors: (Constant), Omnichannel Retailing*			
	b. Dependent Variable: Brand Equity			
5	*a. Predictors: (Constant), Omnichannel Retailing, Brand Equity*			
	b. Dependent Variable: Large Scale Retail Stores Performance			

Source: Survey data, (2024)

From the model summary, shown in Table 4.25, Model 1 regressed omnichannel retailing against large scale retail store performance. This had correlation coefficient (R = 0.437) and coefficient of determination (adjusted R^2 = 0.181) confirming that omnichannel retailing can explain 18.1% of the variability in retail store performance and that omnichannel retailing has positive effects on retail stores performance. Model 4 presents the regression between omnichannel retailing and brand equity, with correlation coefficient of (R = 0.650) and coefficient of determination (adjusted R^2 = 0.415) indicating that omnichannel retailing explains 41.5% of the variability in brand equity indicating a great effect of omnichannel retailing on brand equity as revealed by the coefficient of determination. The regression Model 5 indicates the effects of omnichannel retailing and brand equity on large scale retail stores performance. The regression Model 5 (R = 0.438) shows a greater correlation as compared to model 1 (R = 0.437) and therefore a high coefficient of determination (R^2 = 0.192 and adjusted R^2 = 0.172). Model reveals omnichannel retailing and brand equity explains 17.2% of the variance in large scale retail stores performance, suggesting that model 5 has a slightly lower

ability in explaining the variability in large scale retail stores performance than model 1 where omnichannel retailing is considered.

Table 4.26: ANOVA for Brand Equity, Omnichannel Retailing and Performance

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.896	1	6.896	19.132	.000
	Residual	29.198	81	.360		
	Total	36.094	82			
4	Regression	7.206	1	7.206	59.227	.000
	Residual	9.855	81	.122		
	Total	17.062	82			
5	Regression	6.928	2	3.464	9.502	.000
	Residual	29.166	80	.365		
	Total	36.094	82			

Source: Survey data, (2024)

As indicated in table 4.26, the ANOVA analysis investigated the hypothesis of each regression model, where the three models were found to be significant (model 1, p = 0.000; model 4, p= 0.000; model 5, p = 0.000). This shows relationship between omnichannel retailing and large scale retail stores performance; omnichannel retailing and brand equity; and the relationship between omnichannel retailing, brand equity and retail stores performance is significant. This confirms presence of mediating effects observed in the model summary. Thus, rejection of null hypothesis (***H_{05}:*** *brand equity has no mediating effects on the relationship of omnichannel retailing and large scale retail stores performance*).

Model 1 in the coefficients section shown in Table 4.26 confirmed that omnichannel retailing effects on large scale retail stores performance with p-value below 0.05 (p-value = 0.000). The regression model demonstrates significant coefficients and confirms the mediating effect.

The regression coefficients model 4 confirmed the ANOVA analysis observation of a significant relationship between brand equity and omnichannel retailing, with a p-value below

0.05 (P-value = 0.000). Thus, rejecting the null hypothesis, (H_{05}). Model 5 regression coefficients were observed to be significant for omnichannel retailing, brand equity and large scale retail stores performance (p-value = 0.000), showing the presence of a mediating effects of brand equity on the relationship between omnichannel retailing and large scale retail stores performance.

Table 4.27: Regression Coefficients Brand Equity, Omnichannel Retailing and Performance

Coefficients								
		Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval	
Model		B	Std. Error	Beta	T	Sig.	Lower	Upper
1	(Constant)	-.186	.660		-.282	.778	-1.499	1.126
	Omnichannel Retailing	.671	.153	.437	4.374	.000	.366	.977
4	(Constant)	1.344	.383		3.506	.001	.581	2.107
	Omnichannel Retailing	.686	.089	.650	7.696	.000	.509	.864
5	(Constant)	-.110	.712		-.155	.878	-1.527	1.307
	Omnichannel Retailing	.710	.203	.462	3.497	.001	.306	1.115
	Brand Equity	.057	.192	.039	2.295	.049	.039	.326

a. Model 1 Dependent Variable: Retail Stores Performance
a. Model 4 Dependent Variable: Brand Equity
a. Model 5 Dependent Variable: Large scale Retail Stores Performance

Source: Survey data, (2024)

The finding illustrated in table 4.27, that omnichannel retailing affects the performance of large scale retail store major satisfied the first condition of the mediating effects. The second condition of the mediating effect was met when omnichannel retailing had a significant effect on brand equity. The study met the third condition of the mediating effect where the omnichannel retailing and brand equity had a joint effect on the large scale retail stores performance. The fourth condition in mediating relationship, is that omnichannel retailing

coefficient is less in model 1 than in model 5, which was met, model 1 coefficient (0.671, p=0.000) while model 5 coefficient (0.710; p=0.001).

The study confirms that brand equity and omnichannel retailing have a joint effect on large scale retail stores performance, hence considered a mediating variable. The studies of Swoboda *et al.* (2016); Bougenvile and Ruswanti (2017) made similar findings regarding brand equity and performance. Jara and Cliquet (2012), indicated that brand equity effects performance because retail brand awareness significantly affects the choice of retail brand and purchase intention. Therefore, retail brand equity directly and positively affects the consumers' response on their intention to purchase and choice of retail brand.

4.7 Summary Hypothesis Testing Outcomes

The study tested five hypotheses, omnichannel integration, Omnichannel order fulfilment, omnichannel services configuration, dynamic capabilities, and brand equity in relationship to performance of large scale retail stores. The results show that all the variables except omnichannel order fulfilment had significant effect on performance of large scale retail stores. The table below gives a summary of hypotheses studied where the null hypotheses were rejected except for omnichannel order fulfilment which the study failed to reject.

Table 4.28: Summary of hypothesis testing

Null Hypothesis	Criteria	Model and R^2	Findings	Decision
(H_{01}) Omnichannel integration has no effect on performance of large scale retail stores in Nairobi City County, Kenya.	P-value < 0.05 (ANOVA/ coefficient level) rejection of null hypotheses	1. $FP = 0.772\ OCI + 0.145\ OSC + \varepsilon$ 1. R^2 - 0.324 (32.4%)	1. p-value = 0.001 < 0.05	P-value < 0.05 Reject null hypotheses
(H_{02}) Omnichannel order fulfilment has no effect on performance of large scale retail stores in Nairobi City County, Kenya.	P-value < 0.05 (ANOVA/ coefficient level) rejection of null hypotheses		1. p-value = 0.111 > 0.05	P-value > 0.05 Fail to reject null hypotheses
(H_{03}) Omnichannel services configuration has no effect on performance of large scale retail stores in Nairobi City County, Kenya.	P-value < 0.05 (ANOVA/ coefficient level) rejection of null hypotheses		1. p-value = 0.024 < 0.05	P-value < 0.05 Reject null hypotheses
(H_{04}) Dynamic capabilities has no moderating effect on the relationship between omnichannel retailing and performance of	P-value <0.05 (ANOVA/ coefficient level) Reject null hypotheses	1. $FP = 0.671\ OR_1 + \varepsilon$ 2. $FP = 0.772\ OR + 0.136\ DC$ 3. $FP = 0.759\ OR + 0.147\ DC + 0.129\ XM_o + \varepsilon$	1. p-value = 0.000 < 0.05 2. p-value = 0.000/ 0.048 < 0.05 3. p-value = 0.001/0.046/ 0.049 < 0.05	P-value < 0.05 Reject null hypotheses

large scale retail stores in Nairobi City County, Kenya.		1. R^2 - 0.191 (19.1%) 2. R^2 - 0.196 (19.6%) 3. R^2 - 0.197 (19.7%)		
(H_{05}) Brand equity has no mediating effect on the relationship between omnichannel retailing and performance of large scale retail stores in Nairobi City County, Kenya.	P-value <0.05 (ANOVA/ coefficient level) Reject null hypotheses	1. FP = *0.671 OR+ ε* *4. BE = 1.344* + 0.686 *OR+ ε* *5.* FP =*0.710 OR + 0.057 BE + ε* 1. R^2 - 0.191 (19.1%) 4. R^2 - 0.422 (42.2%) 5. R^2 - 0.192 (19.2%)	1. p-value = 0.000< 0.05 4. p-value = 0.000/0.001< 0.05 5. p-value = 0.001/0.049 < 0.05	P-value < 0.05 Reject null hypotheses

Source: Survey data (2024)

4.8 Qualitative Data Analysis

The study integrated qualitative statistics to further inform the study variables. The open-ended questions were added into the data collection tools, which allowed retail managers to openly express their position on omnichannel retailing in the studied stores.

4.8.1 Omnichannel Integration

The retail managers interviewed revealed how crucial omnichannel integration is to raising customer satisfaction, increasing operational effectiveness, and boosting overall store performance. The analysis highlights the importance of omnichannel integration in retail stores, with a strong emphasis on customer experience, digital transformation, and operational efficiency. The stores managers mentioned customer experience and personalization as a key motivation to omnichannel integration in the retail stores. They prioritize personalization and

customer integration, especially in specialist retail stores where meeting the demands of each individual consumer increases satisfaction and engagement. One manager highlighted his belief that providing individualized experiences, such as customized customer support and mobile app interactions, requires a single client data profile.

Further, the retail managers reached revealed that their omnichannel integration rose from the desire to have coordination and convenience. The managers stressed the value of well-coordinated channels that provide the stores with ease and variety, greatly improving the entire customer experience. One respondent observed that younger consumers who value convenience and effectiveness in their shopping experiences find the flexibility offered by incorporating several sales channels such as online platforms, mobile applications, and physical stores particularly appealing. Some of the retailers felt that the complimentary nature of these sales channels, which cooperate to produce a unified and frictionless shopping environment, further improves a seamless shopping experience. They confirmed that through omnichannel integration, sales, customer satisfaction, and brand perception improved once their channels realize high level of synchronization.

The cost reduction and operational efficiency was highlighted by a few of the respondents as a key motivator for omnichannel integration. They revealed that omnichannel integration, as well as improving service delivery, is crucial in lowering operating expenses. One of the managers observed that his store has greatly increased productivity and removed redundancies by simplifying procedures and combining activities into a single platform. They revealed that technology is an important facilitator in this process, making processes run more smoothly and improving customer service. A respondent revealed that managing several channels makes

their business model more flexible and adaptable which benefits their merchants and clients. Many stores highlighted their reliance on mobile apps in provision of improved accessibility. The study revealed that digital transformation is also seen as a key component of contemporary retail strategy. The study observed that managers understand how critical it is for their strategy to continuously evolve. Omnichannel integration allows for the continuous enhancements and system simplifications needed to change as per consumer preferences. This iterative process guarantees that customers remain responsive and agile, enabling them to satisfy the demands of a varied and changing clientele. This leads to the observation that retail stores benefit from a more dynamic, effective, and customer-friendly retail environment through the strategic integration of various channels and the utilization of digital tools. This strategy not only fits in with contemporary expectations and shopping habits but also sets up retail stores for sustained success in a competitive industry.

4.8.2 Omnichannel Order Fulfilment

Retail managers stressed the importance of order fulfillment in boosting sales and guaranteeing customer satisfaction. The respondents emphasized that achieving overall business success are the results of efficiently and effectively completing customer orders. Some of the respondents revealed that they have observed that customers place great value on prompt and dependable deliveries. Majority of the retail managers concurred that speedy order fulfillment is crucial. The respondents revealed that the major issue in omnichannel order fulfilment is speed of order delivery. A retail manager revealed that speed is still a major problem in his store, and achieving a balance between cost and efficient delivery is critical in profitability growth. Many managers emphasized how crucial it is to offer quicker and more flexible delivery alternatives, particularly during peak seasons. Additionally, retail managers revealed the need for concerted

attempts to expedite the delivery process through omnichannel order fulfilment where retail stores were said to have increased the efficiency of order delivery over time.

Further, retail managers support provision of variety of deliveries and return alternatives to improve client experience while guaranteeing accessibility and ease. According to numerous retail managers, their stores offer a range of ordering, delivery and return channels, which greatly raises the services level in the store. According to the respondents, omnichannel order fulfilment requires to avoid order delays and improve processing accuracy, a strong supply chain and logistics system including real-time inventory tracking.

The respondents revealed that contemporary order fulfillment relies heavily on technology, and managers encourage the use of automated picking and packaging technologies to improve efficiency. A store manager observed that customer communication and real-time order tracking technologies are crucial instruments for reducing complaints and enhancing transparency. Therefore, it can be inferred that meeting consumer expectations depends on an effective omnichannel order fulfillment process.

4.8.3 Omnichannel Service Configuration

The retail managers stressed the value of communication and clarity while setting up omnichannel services. They emphasized how important it is that clients comprehend all of the services that are offered in the retail stores. They highlighted that services should be communicated consistently and with clarity across all mediums. One of the respondents revealed a key challenge in omnichannel services configuration being customers' low service knowledge, necessitating intensive marketing initiatives to educate them about different service channels.

The respondents revealed the significance of customer awareness and knowledge as a key area of focus. They noted that many clients are not entirely familiar with the variety of services available. One of the respondents observed that retail companies need to make sure that consumers awareness of the services availability should be conducted. Additionally, managers stated that offering a wider range of services improves the shopping experience for customers and boosts sales.

The managers revealed that a well-organized service strategy across several channels was necessary. While acknowledging that service offers differ, they emphasized how crucial it is to uphold a high level of coordination. One of the respondents confirmed that having a variety of service options that are suited to the demands of the client helps increase satisfaction and encourage repeat business. The respondents revealed that multiple services are already offered by their stores, allowing customers to shop efficiently across platforms and supporting the notion that having a wide range of service options makes shopping more convenient. Therefore, there is consensus among retail managers that increasing customer satisfaction and efficiency in service provision depend on the omnichannel service configuration that is well-communicated and coordinated.

4.8.4 Brand Equity

The retail stores managers understood how crucial brand equity is in attracting consumers, increasing sales, and preserving a competitive edge. The retailers revealed that their success in the fiercely competitive retail industry necessitates a strong brand image, high awareness, and favorable customer associations. The managers stressed that creating and maintaining brand equity requires consistent marketing efforts, and dependable service delivery. The retail managers noted that as more consumers are drawn in, loyalty is increased, and long-term

success is facilitated by a strong brand image. According to one of the respondents, his retail store delivers high quality services which is crucial in building a positive brand image, boosting consumer trust, and boosting the frequency of purchases. Additionally, the retail managers stressed that a good retail image guarantees repeat and new business.

Further, competitive differentiation and positioning were mentioned as crucial tactics for positioning in a crowded retail sector. Retail managers emphasized that, considering the growth of discount chains and specialist shops, businesses need to have a distinct identity in order to stand out. According to some, specialty shops can increase brand awareness through education-based marketing. Furthermore, one of the respondents observed that their brand's trust and market leadership are strengthened by a significant presence in market.

The study therefore found that the retail managers have concurrence that brand equity contributes to organization performance. It was confirmed that retailers must make strategic marketing investments, guarantee service consistency, and set themselves apart from the competition to sustain a strong brand presence. The retail managers noted that strong brand awareness contributes to sales growth and long term growth.

4.8.5 Dynamic Capabilities

The study revealed that retail managers recognize how important dynamic capabilities are to maintain competitiveness, especially when it involves investment in technology, resource allocation in customer satisfaction strategies. The retailers indicated that they use cutting-edge service delivery models to improve productivity and customer satisfaction. The stores managers stressed that the industry's success depends on ongoing investments in infrastructure technology as key indicators of a store's dynamic capability. This investment guarantees seamless service delivery, sustains enhanced shopping experience and competitive advantage.

The retail managers linked their stores' innovation and diversified offerings to their dynamic capabilities in the retail sector. The retail managers interviewed commented on the necessity for innovation and diversification in running their retail stores with a sustainable competitive edge. They revealed that businesses are forced to constantly improve their product offerings to give customers more individualized shopping experiences to stay competitive. Some of the retail managers revealed that adopting cutting-edge technology has made them competitive, improved convenience, and operational efficiency. Therefore, managers in the retail industry concur that dynamic capabilities and technology are essential to company success. Large scale retail stores can enhance customer experiences and sustain long-term growth in dynamic retail sector by utilizing firm dynamic capabilities.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The section review research results as demonstrated in previous chapter and examines their contribution to the existing knowledge. The conclusion was based on the study specific objectives and was used to advance on policy implications and recommendations, and areas for more studies.

5.2 Summary

This research was undertaken to measure the effects of omnichannel retailing on the performance of large retail stores in Kenya. This was to be realized by meeting five objectives of the study stated as: establishing the effects of omnichannel integration, omnichannel order fulfilment, and omnichannel service configuration on performance of large scale retail stores; assessing the moderating effects of dynamic capabilities and brand equity's mediating effect on relationship between omnichannel retailing and the performance of studied retail stores.

The first objective which determined effect of omnichannel integration on performance of large scale retail stores. In operationalization of variable, content, process and customer service consistency was used. The study rejected the null hypothesis concluding that omnichannel integration has significant effect on performance of large scale retail stores. It was found that omnichannel integration had high and significant coefficient correlation with large scale retail stores performance ($r= 0.699$; $p = 0.000$), intimating a possible relationship between two variables. This was further confirmed through regression analysis which revealed that when combined with omnichannel services configuration and omnichannel order fulfilment, the omnichannel integration was observed to account for 29.8% of variance in large scale retail

store performance. Further, omnichannel integration had significant coefficient (β = 0.772; p=0.001) confirming that the factor does have a positive effect on large scale retail stores performance.

The second objective which determined the effects omnichannel order fulfilment on performance of large scale retail stores. In operationalization of variable delivery modes, return modes and inventory management was used. Omnichannel order fulfilment was also found to correlate with large scale retail stores performance (r= 0.350; p = 0.001), revealing possible relationship between the two variables. When integrated in a joint regression model with omnichannel integration and omnichannel services configuration, the model explained 29.8% of the variance in retail stores performance; but the coefficient for omnichannel order fulfilment in this relationship was found to lack significance effects and was negative (β = -0.249; p=0.111), thus revealing that omnichannel order fulfilment has no direct effects of large scale retail stores performance. Therefore, study did not reject the null hypothesis concluding that omnichannel integration has no significant effect on performance of large scale retail stores.

The third research objective determined the effects of omnichannel services configuration on the performance of large scale retail stores. The operationalization of the variable involved use of channel transparency and breadth of channel service. It was observed that omnichannel services configuration had correlation coefficient with studied retail stores performance (r= 0.677; p = 0.000) revealing possible relationship between the two variables. Further, in a joint model with omnichannel integration and omnichannel order fulfilment, the study found that omnichannel services configuration explains 29.8% of the variability in retail stores performance.

The fourth research objective determined moderating effect of dynamic capabilities on relationship between omnichannel retailing and large scale retail stores performance. This was operationalized by absorptive and transformative capability. The research established positive correlation coefficient between dynamic capabilities and performance of large scale retail stores ($r= 0.545$; $p = 0.000$). The study undertook a moderator relationship assessment between dynamic capabilities, omnichannel retailing and performance of large scale retail stores where omnichannel retailing was observed to account for 18.1% variance in performance of retail stores, 17.6% when dynamic capabilities were added, and 16.6% when moderator variable is added. These three relationships were confirmed to have positive and significant regression coefficients in all the three moderator models. Thus, the variables are able to inform performance of the studied retail stores with all the models revealing positively that dynamic capabilities and omnichannel retailing positively affects performance of retail stores. This confirms dynamic capabilities have moderating effect on relationship between omnichannel retailing and performance of large scale retail stores. The study therefore rejected null hypothesis.

The fifth objective which determined mediating effects of brand equity on relationship between omnichannel retailing and large scale retail stores performance within Nairobi City County. Brand equity was operationalized by brand awareness, image and association. Brand equity and large scale retail stores' performance had moderate positive correlation coefficient ($r=0.522$; $p=0.000$) revealing existence of a relationship. This was confirmed in a regression model where brand equity was confirmed as having mediating effect on relationship between omnichannel retailing and large scale retail stores performance. This study established that brand equity enhanced the ability of omnichannel retailing in explaining variabilities in

performance. The three mediating effects models were significant and the regression coefficients for the three models were positive and significant (omnichannel retailing - β = 0.671 vs performance; brand equity - β = 0.686 vs omnichannel retailing; omnichannel retailing - β = 0.710 and brand equity - β = 0.057 vs performance) revealing that mediating effect of brand equity on relationship between omnichannel retailing and large scale retail stores performance. The study rejected null hypothesis concluding that brand equity had significant mediating effect on relationship of omnichannel retailing and large scale retail stores performance.

From these findings, we can infer that omnichannel retailing had significant effect on performance of large scale retail stores, as revealed in the three constructs making up omnichannel retailing. The study found that improvement in omnichannel retailing improves the performance of retail stores. However, an omnichannel retail strategy that is inadequately implemented hurts retail performance.

5.3 Conclusion

The study looked at omnichannel retailing in terms of omnichannel integration, omnichannel order fulfilment, and omnichannel services configuration which were found to be widely practiced among large retail stores in Kenya. The study found that among the studied retail stores, omnichannel integration is widely undertaken, with greater effects on large scale retail stores performance. The evidence from this study leads to conclusion that omnichannel integration had positive effect on the performance of large scale retail stores. This meets the views posited by the social exchange theory which explains and predicts behavior when individuals interact with variables that effects choices, such as the interaction between

omnichannel integration, retailer and consumer behaviour culminating in enhanced organization performance.

The study observed that omnichannel order fulfilment is a widely employed retail store strategy, with a wide majority of the studied stores revealing that they interact with omnichannel order fulfilment activities. Its popularity stems from the pursuit of the efficiency and effectiveness of direct inventory flow to right locations when fulfilling customer orders. The current study found that though omnichannel order fulfillment is a widely practiced retail store strategy, it lacks any effects on performance of retail stores studied. This difference might stem from the unique ways the factor was measured in these studies targeting a single brand compared to the unique case of retail stores that deals with varying brands and a more complex logistical challenge. The study concludes that omnichannel order fulfillment, though a significant component of omnichannel retailing, has no direct effects on performance of studied retail stores.

Omnichannel services configuration allows customers access the breadth of services choice, information on available options thus integrating transparency. In the studied large scale retail stores, omnichannel services configuration was found to be a key component of operations, being observed to be practiced widely within these retail stores. The ratings for the omnichannel services configuration were high in retail stores, revealing high quality of channel services configuration. This study comes to conclusion that omnichannel services configuration has positive effects on the performance of studied retail stores.

This research determined the moderating effect of dynamic capabilities on the relationship between dependent and independent variable. The study established that integration of dynamic capabilities in a model assessing the impact of omnichannel retailing on performance

significantly improves its ability to explain variabilities in performance. Therefore, conclusion of dynamic capabilities as having moderating effect on relationship between omnichannel retailing and performance of large scale retail stores. This is aligning with dynamic capability theory that looks at the capacity of an organization to effectively integrate, develop, and reconfigure competencies in their operating environment. The dynamic capabilities integration in the model improves omnichannel retailing effects on firm performance.

Brand equity assessed mediating effects of omnichannel retailing on the performance of large scale retail stores. Brand equity is a strong marketing tool that allows brands to achieve premium pricing loyalty and influencing consumer-purchasing intentions. However, brand equity works slightly differently when it comes to retail store brands as the stores capitalize on wider products offerings and lower margins, and is hinged on perception and market behaviour. In the current study, brand equity in majority of the stores was highly rated and confirmed that mediating effect existed on relationship between omnichannel retailing and performance of large scale retail stores.

5.4 Study Recommendations and Policy Implications

This study highlights policy impact for decision-making in the retail sector, emphasizing the role of large scale stores performance in economic development. The findings would help policymakers in evaluating the value of omnichannel retailing in performance enhancement. From the findings, retail stores management should leverage on omnichannel integration and omnichannel services configuration and critically evaluate the role of omnichannel order fulfilment. The study highlighted brand equity and dynamic capability as factors that could improve the overall effects of omnichannel retailing on performance of retail stores.

The study informs policymakers and industry regulators on the need to develop information technology ecosystems that enhance customer experience, customer data security and seamless accessibility across multiple retail channels. It reveals how dynamic capabilities and brand equity influence the success of omnichannel retailing, thus encourage adoption of retailing technology innovation in the sector. Furthermore, the study findings would support the formation of operation guidelines in harmonizing physical, mobile and online channel operations that would enhance customer experience and retail performance.

However, the study established that omnichannel retailing explains only 29.8 % variation in performance while other excluded factors account for 70.2%. The variation can be explained by the dominance usage of conventional retailing channels, consumers mistrust, low technology and consumer behaviour of Kenyan consumers. The results suggest that retail stores managers should continuously invest in retail infrastructure and education of consumers on omnichannel retailing.

The finding concluded that dynamic capabilities had moderating effect on the study variables, these findings confirm the views of dynamic capabilities and resource-based view theories on organization performance. The study established that brand equity had mediating effects on the study variables. The variable was anchored by double jeopardy theory which postulates the relationship between market share and purchasing behaviour of customers. The findings support theory by demonstrating that brand equity drives performance from omnichannel retailing context. The study recommends brand equity enhancement in large scale retail stores to realize the benefit from usage of omnichannel retailing.

5.5 Contribution of the Study to Knowledge

The findings demonstrate that omnichannel retailing positively affects performance of retail stores studied. Thus, this study provides evidence that large scale retail stores utilizing this technology are experiencing positive gains in performance and thus encourages uptake of this technology to improve the retail sector. There are benefits accrued from adopting this technology in an operating environment with heightened dynamic capabilities and brand equity, thus stores would reap better outcomes when these conditions are improved. Thus, a significant implication of the findings is in the validation of omnichannel retailing in the Kenyan retail sector.

The study provides retailers with knowledge on how to design an omnichannel retailing environment that delivers seamless customer experiences, efficiency in operation and performance. Through highlighting how dynamic capabilities indicators such as absorptive and transformative capability enhance omnichannel retailing strategies. This offers a guideline to omnichannel retailers on reconfiguring internal capabilities in sustaining competitive advantage in dynamic retailing industry. The finding on brand equity gives an insight into retailers on how to build strong brands through customer engagement and efficient service delivery. The findings offer an evidence-based approach to decision making in enhancing performance through omnichannel retailing

This study was able to make empirical contributions in this field of research. The study finds that though there are a few studies that explain the effects of omnichannel retailing on large scale retail stores performance, the introduction of the moderator (dynamic capabilities) and the mediator (brand equity) to this model has not been studied from Kenyan context. Therefore, there has been no previous empirical evidence of potential effect on this relationship in the

retail industry. The study also contributes to the existing knowledge on performance concept, integrating the unique attributes of large scale retail stores performance as measured in the light of omnichannel retailing while combined with financial performance and operational efficiency.

5.6 Areas for Further Research

The study established that omnichannel retailing (omnichannel integration and omnichannel services configuration), dynamic capabilities and brand equity have significant effect on performance of large scale retail stores. The empirical model explained a 29.8% variation in performance, while other omitted indicators accounted for 70.2% of the variability. The study recommends further studies on omnichannel retailing while integrating other factors influencing performance.

Omnichannel order fulfilment, a component of omnichannel retailing, was found to have no direct effect on large scale retail stores' performance. The conflicting findings observed by various researchers on the variable necessitate further studies. This study suggests more research on omnichannel order fulfilment and firm performance. The study scope of retail sector and Nairobi County context necessitate further research in varying sectors and regions. The advancement of knowledge would result from testing the models in various contexts and scopes. Further studies should be conducted determine the directionality of the causal relationship between omnichannel retailing and brand equity.

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APPENDICES

Appendix I: Letter of introduction

Simon Kanoga
Kenyatta University

Dear sir/Madam

REF: DATA COLLECTION REQUEST.

I am working on doctoral thesis at Kenyatta University specializing in marketing in the business department. I would like to conduct a study on ***"Omnichannel Retailing and Performance of Large Scale Retail Stores in Nairobi City County, Kenya''***. I kindly request your contribution to this study through filing the enclosed questionnaire. I guarantee that the study will adhere to ethical standards during and after the research. The submission will be confidential and anonymous. I have enclosed a questionnaire, kindly take some time to complete it.

Yours Sincerely

Simon Kanoga

Appendix II: Questionnaire

Section A: General Information

Kindly tick appropriately to the following statements.

1. Kindly indicate your gender.

   Male [ ] Female [ ]

2. Kindly indicate your age bracket.

   20 years and below [ ] above 20 – 30 years [ ] above 30 – 40 years [ ]

   above 40 – 50 years [ ] above 50 –60 years [ ] above 60 years [ ]

3. Kindly indicate your highest level of education

   None [ ] Certificate [ ] Diploma [ ] Bachelor's Degree [ ]Master's Degree [ ]

   Doctorate [ ]

4. How long have you worked in this retail organization?

   Below 5 Years [ ] above 5- 10 Years [ ] above 10 - 15 Years [ ] above 15 Years [ ]

5. Kindly indicate the category of the retail organization.

   Supermarket/Hypermarket [ ] Food Retail [ ] Specialty stores [ ] others[ ]

6. Which department/ role do you perform in the retail store .

   Marketing & sales [ ] Information technology [ ] Finance & accounts [ ]

   Operations/Logistics [ ] Others [ ]

7. How long has retail organization existed?

   Below 0-5 Years [ ] 5- 10 Years [ ] 10 - 15 Years [ ] 15 Years and above [ ]

8. Kindly indicate the channels in your retail stores.

Channel type	Available	Not-available
Physical channel		
Online channel(website)		
Mobile app(in-store shopping app)		
Third-party mobile apps (e.g.Jumia, Glovo, Kilimall)		

9. Kindly indicate the technologies used in the retail store.

Technology	In use	Not- in use
Point of Sale (POS) System		
Customer Relationship Management (CRM) Systems		
Order Management Systems		
Inventory Management Systems		
Supply Chain and Logistics Platforms		
Payment Gateways (banks transfer/mobile money		
Others (Please specify)		

Section B: Omnichannel Integration

10. Using a scale of 1-5 where: **1=Strongly Disagree: 2=Disagree :3=Moderately agree :4=Agree: 5=Strongly Agree.** Kindly rate the following statement indicated below.

Statement	1	2	3	4	5
The retail store has integrated mobile, online and physical channels.					
The retail store has improved operational efficiency by integrating various channels.					
The retail store has processes to ensures customer service consistency across channels					
The retail store manage transition between physical store visits and online interactions to ensure a unified experience					
The retail store maintains consistent product information across channels.					
The retail store provides consistent pricing information across channels.					

11. In your opinion do you have any other view of omnichannel integration in retail store?

Section C: Omnichannel order fulfilment

12. Using a scale of 1-5 where: **1=Strongly Disagree: 2=Disagree :3=Moderately agree :4=Agree: 5=Strongly Agree.** Kindly rate the following statement indicated below.

Statement	1	2	3	4	5
The retail store has multiple order delivery options to ensure customer order fulfilment					
The retail store ensures consistency in the order fulfillment process across different channels.					
The retail store has timely delivery of customers' orders across channels					
The retail store guarantees efficient processing of order returns across all channels					
The retail store has across channels collaborations to deal with customer order returns					
The retail store has an effective inventory management					
The retail store integrates inventory data across all sales channels					

13. In your opinion do you have any other view of order fulfillment in the retail store?

Section D: Omnichannel Service Configuration

14. Using a scale of 1-5 where, 1**=Strongly Disagree: 2=Disagree :3=Moderately agree: 4=Agree: 5=Strongly Agree.** Kindly rate the following statement indicated below.

Statement	1	2	3	4	5
The retail store has wide range of sales channels options					
The retail store has wide services options across sales channels					
The customers are aware of services options across the channels					
The store has transparency in return and refund policies across channels					
The retail store has clarity of product information across channels					
The retail store has transparency of pricing policies across channels					
The retail store provides transparent information on delivery and returns					

15. In your opinion, do you have any other view on channel service configuration in retail store?

Section E: Brand Equity

16. Using a scale of 1-5 where, **1=Strongly Disagree: 2=Disagree :3=Moderately agree :4=Agree: 5=Strongly Agree.** Kindly rate the following statement indicated below.

Statement	1	2	3	4	5
The retail store has image that enhances the implementation of omnichannel retailing					
The retail store has image that builds customer trust to shop across the channels					
The brand association of the store ensures usage of omnichannel retailing by customers					
The customers associate the retail store with provision of a seamless experience across all channels.					
The brand awareness of the retail store ensures customer willingness to engage with omnichannel retailing					
The retail store is recognized across various shopping channels.					

17. Do you have any other opinions on the retail store's image, awareness and association?

.....

.....

Section F: Dynamic capabilities

18. Using a scale of 1-5 where, **1=Strongly Disagree: 2=Disagree :3=Moderately agree :4=Agree: 5=Strongly Agree**. Kindly rate the following statement indicated below.

Statement	1	2	3	4	5
The retail store has invested in omnichannel retailing technology infrastructure					
The retail store has the ability to quickly adapt to customer demands across different sales channels					
The retail store has the capacity to modify existing retailing procedures and practices					
The retail store support transformative changes that enhance the omnichannel experience					
The retail stores have the ability to learn ,adapt and implement the latest omnichannel retailing technologies					
The retail store uses its knowledge and experience in implementation of the latest omnichannel retailing technologies					
The retail store incorporates feedback across channels into the omnichannel retailing infrastructure					

19. In your opinion, do you have any other view on dynamic capabilities in retail store?

.....

.....

.....

Section G: Firm Performance

20. Using a scale of 1-5 where, 1=**Strongly Disagree: 2=Disagree: 3=Moderately agree :4=Agree: 5=Strongly Agree.** Kindly rate the following statement indicated below.

Statement	**1**	**2**	**3**	**4**	**5**
The retail store's usage of omnichannel retailing has led to growth in sales in online, physical and mobile channels.					
The adaptation of omnichannel retailing has increased the number of customers in the retail store.					
The retail store has improved operational efficiency through channel integration processes across channels.					
The retail store's omnichannel retailing has resulted in efficient order fulfillment.					
The market share has grown due to the provision of consistent and seamless customer experience across all channels.					
The retail store has gained market share through integrating omnichannel retailing capabilities and resources					
The implementation of omnichannel retailing has improved store's profitability.					
The omnichannel retailing has led to cost cutting measures which have impacted on profitability					

21. Using a scale of 1-5, where **1**= below 1**%: 2**=1-5% :**3**= (5-10%): **4**= (10-15%): **5**=Above 15%: Kindly rate the following statement indicated below.

Sales Growth	**1 Below 1%**	**2 1-5%**	**3 (5-10%)**	**4 (10-15%)**	**5 Above 15%**
2020					
2021					
2022					
2023					
2024					
Profitability growth	**1 Below 1%**	**2 1-5%**	**3 (5-10%)**	**4 (10-15%)**	**5 Above 15%**
2020					
2021					
2022					
2023					
2024					
Market share growth	**1 Below 1%**	**2 1-5%**	**3 (5-10%)**	**4 (10-15%)**	**5 Above 15%**
2020					
2021					
2022					
2023					
2024					

Appendix III: List of Large Scale Retail in Nairobi city County.

	Name of retailer	Number of stores in Nairobi county	Type of store
1	QuickMart	31	supermarket/hypermarket
2	Chandarana	17	supermarket/hypermarket
3	Naivas	45	supermarket/hypermarket
4	Carrefour	17	supermarket/hypermarket
5	Cleanshelf	9	supermarket/hypermarket
6	Jaza stores	4	supermarket/hypermarket
7	Powerstar	3	supermarket/hypermarket
8	Eastmatt	4	supermarket/hypermarket
9	Khetias	2	supermarket/hypermarket
10	Simbisa Brands	124	Food Retail
11	Domino's Pizza,	8	Food Retail
12	KFC	22	Food retail
13	Java House Ltd	55	Food retail
14	Artcaffe	30	Food Retail
15	LC Waikiki	7	Specialty stores
16	Umoja shoes company Ltd	10	Specialty stores
17	Optica Limited	38	Specialty stores
18	Healthy U 2000	24	Specialty stores
19	Nairobi Sports House	6	Specialty stores
20	Text Book Centre	12	Specialty stores
21	Office Mart	9	Specialty stores
22	Bata	20	Specialty stores

Sources. (RETRAK 2023 & and stores information)

Appendix IV: Approval of Research Proposal.

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D86/CTY/21754/2020

Date: 27th September, 2024

The Director General,
National Commission for Science, Technology & Innovation,
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR KANOGA S. GICHERU REG. NO. D86/CTY/21754/2020

I write to introduce **Gicheru** who is a Postgraduate Student of this University. The student is registered for a Ph.D. degree programme in the **Department of Business Administration in the School of Business, Economics & Tourism.**

Gicheru intends to conduct research for Ph.D. thesis entitled, **"Omnichannel Retailing and Performance of Large Scale Retail Stores in Nairobi City County, Kenya".**

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELIUD N.M. NJAGI
Ag EXECUTIVE DEAN, GRADUATE SCHOOL

AK/cao

2. Dr. Reuben Njuguna
C/o Department of Business Administration
KENYATTA UNIVERSITY

AK/cao

Appendix VI: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **535056**

Date of Issue: **07/November/2024**

RESEARCH LICENSE

This is to Certify that Mr.. Simon Gicheru Kanoga of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Omnichannel retailing and performance of large scale retail stores in Nairobi city county ,Kenya for the period ending : 07/November/2025.

License No: **NACOSTI/P/24/41854**

535056

Applicant Identification Number

Director General
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