



University of Bahrain
College of Business Administration
Department of Management & Marketing

Exploring the Omni-channel Retailing Capability on Customer Satisfaction: The Role of Logistics Service Quality

Thesis Submitted in partial Fulfillment of the Requirement for the Degree of Master of Business
Administration (MBA)

Prepared by:
Abdulrehman Habib

ID: 20122432

Supervised by:
Dr. Waleed A. Aziz

(Associate Professor)

University of Bahrain

Kingdom of Bahrain

December 2022



University of Bahrain

College of Business Administration

Department of Management & Marketing

Exploring the Omni-channel Retailing Capability on Customer Satisfaction: The Role of Logistics Service Quality

Thesis Submitted in partial Fulfillment of the Requirement for the Degree of Master of Business
Administration (MBA)

Prepared by:

Abdulrehman Habib

ID: 20122432

Supervised by:

Dr. Waleed A. Aziz

(Associate Professor)

University of Bahrain

Kingdom of Bahrain

December 2022



Thesis Discussion Committee Decision

Student Name: ABDULREHMAN HABIB GHULAM ELAHI	Student ID: 20122432
Department: Management & Marketing	College: Business administration
Program: Masters in Business Administration	
Thesis Title: Exploring the Omni-channel Retailing Capability on Customer Satisfaction: The Role of Logistics Service Quality	
Supervisor Name: Dr. Waleed A.Aziz	Student GPA: 3.19

The Discussion Committee met on 18-Jan-23 in Graduate Studies Hall, 2nd floor, College of Business Administration. Upon discussing the student whose details are stated above in public, the discussion committee recommends the following:

The student is awarded a grade A- in the thesis subject.

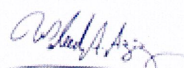
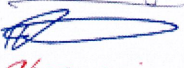
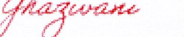
- ☐ Without making any changes to the thesis.
- ☒ After making the modifications attached with this decision.

Discussion Committee Members Approval:

Name

Signature

- | | |
|------------------------|---------------------|
| 1. Dr. Waleed A.Aziz | (Advisor) |
| 2. Dr. Mohamed A.Seoud | (Internal Examiner) |
| 3. Dr. Kamel Ghazouani | (External Examiner) |

Abstract

This research aims at exploring the Omni-channel retailing capability on customer satisfaction by assessing the mediating role of operational logistic service quality and flexibility. The first-order constructs in this study were channel consistency, cross-channel, social media, flexibility, operational logistics service quality, and customer satisfaction. Omni channel capability was measured as second-order construct with channel consistency, cross channel, and social media as first-order construct.

This study is primary in nature and quantitative approach was employed. The data was collected through survey questionnaire therefore, the researcher collected 253 responses from the respondents using convenience and snowball sampling technique. The researcher used Structural Equation Modeling (SEM) technique to analyze the data including bootstrapping to test research hypothesis.

The findings of this research demonstrate a positive impact of mediation roles of flexibility and operational logistic service quality on customer satisfaction. However, it indicated that OC capability does not have a significant direct influence on the level of customer satisfaction.

Keywords: Flexibility, Logistics service quality, Omni-channel, Customer satisfaction

Declaration of Originality

I hereby confirm that this thesis is the product of my own work as my best of knowledge. All the assistance received in preparing this thesis and sources have been acknowledged and this thesis has not been submitted for any degree or other purposes. The work was done under the guidance of Dr. Waleed AbdulAziz at the University of Bahrain to the award of a Master's degree in Business Administration.

Abdulrehman Habib (Candidate's)

Signature:

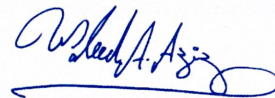


Date: 15/12/2022

In my capacity as supervisor of the candidate's thesis, I certify that the above statements are true to the best of my knowledge.

Dr. Waleed Abdul-Aziz (Supervisor)

Signature:



Date: 22/12/2022

*This thesis is dedicated to my family for
their endless love, support, and
encouragement*

Acknowledgement

First and foremost, I would like to express my gratitude to Allah Almighty for providing me with the opportunity and capability to pursue Master's degree and complete the final criteria for it. I'd like to express my gratitude to my parents for their unwavering and enduring support for everything I've accomplished in life.

I would like to thank my supervisor Dr. Waleed AbdulAziz, for his mentoring throughout my master's degree. This thesis would not have been possible without his considerable guidance, feedback, and valuable input. Under his mentorship, I have learnt a lot from him, and I am sure it will help me become a better person in the future.

Lastly, I would like to express my gratitude to my family and friends for their love and support, as well as belief in my skills.

Table of Contents

Abstract	II
Declaration of Originality	III
Acknowledgement.....	V
List of Tables.....	IX
List of Figures	X
Glossary of Terms	XI
List of Appendices	XII
Chapter 1: Introduction to the Study.....	1
1.1 Introduction	1
1.2 Research problem.....	4
1.3 Research Objective.....	6
1.4 Research significance	7
1.5 The study settings.....	8
1.6 Research Terminology	9
1.7 Organization of the Thesis.....	9
1.8 Summary	10
Chapter 2: Literature review	11
2.1 Overview of Omni-Channel Retailing.....	11
2.1.1 Flexibility	13
2.1.2 Operational Logistic Service Quality	15
2.2 The Importance of OC Retail Stores	16
2.2.1 Impact of Technology on Omni Channel Retailing.....	18
2.2.2 Identifying Omni Channel Retailing Requirements	20
2.3 Barriers, Challenges, and Benefits	23
2.4 Findings of the Past Research Studies.....	26
2.5 Omni Channel and Customer Experience.....	29
2.6 OC Integration.....	32
2.7 Summary	35
Chapter 3: Methods and Procedures.....	36
3.1 Research Hypothesis	36
3.2 Conceptional Framework	40

3.3 Research Design.....	41
3.4 Research Method – Qualitative versus Quantitative.....	41
3.5 Operational and Conceptual Definitions of Variables.....	43
3.6 Research population	45
3.7 Research Data.....	45
3.7.1 Secondary Data.....	46
3.7.2 Primary Data	46
3.8 Research Sample	47
3.8.1 Research Sample Size.....	48
3.9 Instrumentation.....	48
3.9.1 Development of Questionnaire.....	49
3.9.2 Questionnaire Source	50
3.9.3 Questionnaire Structure.....	50
3.9.4 Questionnaire Piloting.....	51
3.9.5 Distribution of the Questionnaire	52
3.10 Data Analysis Techniques	52
3.11 Scale Reliability and Validity.....	53
3.12 Ethical Considerations.....	54
3.13 Summary	54
Chapter 4: Results and Discussion.....	55
4.1 Questionnaire findings.....	55
4.2 Data Editing and Coding.....	55
4.3 Data Entry	56
4.3.1 Scale Items	56
4.4 Normality and Multi-Collinearity Test.....	58
4.5 Reliability and Convergent Validity.....	58
4.6 Discriminant Validity (Fornell-Larcker Criterion)	60
4.7 Discriminant Validity (HTMT)	61
Figure 4.1: Measurement Model	62
4.8 Research Hypothesis	62
Figure 4.2: Structural Model	67
4.9 Summary	67
Chapter 5: Conclusion and Recommendations	68
5.1 Summary of the Results	68

5.2 Conclusion.....	70
5.3 Managerial Implications.....	72
5.4 Research Limitations.....	74
5.5 Research Recommendations.....	75
5.6 Summary	76
Reference.....	77
Bibliography.....	77
Webography	92
Appendix	94
A) Research Study Questionnaire Copy.....	94
B) Variance Inflation Factor.....	98
C) Demographic Characteristics.....	99

List of Tables

Table 1.1: Research Terminology

Table 3.1: Operational and Conceptual Definitions of Variables

Table 4.1: Likert Scale

Table 4.2: Scale Items

Table 4.3: Reliability and Convergent Validity

Table 4.4: Discriminant Validity (Fornell-Larcker Criterion)

Table 4.5: Discriminant Validity (HTMT)

Table 4.6: Hypothesis Testing Results of Direct Effect

Table 4.7: Hypothesis Testing Results of Indirect Effects

List of Figures

Figure 2.1: Conceptual Framework

Figure 4.1: Measurement Model

Figure 4.2: Structural Model

Glossary of Terms

Abbreviation	Full Form
CC	Channel Consistency
CRC	Cross Channel
SM	Social Media
OCC	Omni-Channel Capability
FLEX	Flexibility
OPLSQ	Operational Logistics Service Quality
CS	Customer Satisfaction

List of Appendices

Appendix A: Research Study Questionnaire Copy

Appendix B: Variance Inflation Factor

Appendix C: Demographic Characteristics

Chapter 1: Introduction to the Study

1.1 Introduction

In the current business environment characterized by rapid technological advancement, the adoption and implementation of the digital channels across a range of retailers has experienced considerable growth. Majority of the retailers have been forced by the advancement in technology to change their business strategies to conform to the technological environment (Zhang et al., 2021). The major concern of current retail stores is to satisfy the needs of the consumers by providing them with quality products and good customer experience. Sorkun, Hüseyinoğlu & Börühan (2020) indicated that there is an increasing attempt for the retail stores to change their strategy from the multi-channel (MC) stores to the Omni-channel (OC) stores by providing joined retail channel experience in integrated way (Ürgüplü & Hüseyinoğlu, 2021). Also, the success of the OC retail approach mainly relies on perception of consumers regarding the product. Hüseyinoğlu et al. (2018) argues that the OC capability of retailers should accord with the ability of marketing channels of the retailers to offer the same services and product, notification, assortment, and return products delivery for customers.

Foo et al. (2020) argued that the primary aim of OC is to improve customer experience. As a result, research studies should emphasize the customer experience associated with adoption of the OC retail stores. In the paper operational logistic service quality is established as playing an important role towards improving the level of customer satisfaction. In essence, the logistic service quality is assessed as a crucial component and element of the OC retail strategy as well as the major source for customer satisfaction. A research study by Xu & Jackson (2019) indicates that logistic service quality is the outcome of the logistic performance of retailers. The

previous study also emphasized on the critical role that the logistic service quality can play in OC retailing and the promoting satisfaction of customers. It is also noted that flexibility is a core element that enables the customization of products and services concerned with specific features of various touch points.

Despite the importance of OC retail stores, few research studies have investigated how the customers respond to the OC retail stores initiatives and strategies during the shopping experience. Sandberg & Abrahamsson (2022) in a research study identified the shortfall in the research study focusing on OC approaches and suggested that OC retail strategy is a promising area of future research study in the global business environment. The current research study addresses the limitation of the previous research studies by assessing how the OC stores has contributed to the satisfaction of the customers by improving the operational logistic service quality. It shows that OC retail initiative and the OC promotions can have a great impact on customer satisfaction (CS) and improve their shopping experience.

The OC promotions and marketing can be offered to the customers across every channel during purchasing experience and journey (Shi et al., 2020). For example, OC promotion can be made available through the smartphones when the customers are searching via the Internet or shopping within the physical stores. Although there are different types of promotions, the focus of the paper is on the monetary and non-monetary promotions such as events (Gao et al., 2021). Research indicates that both types of promotion can prove effective in a single retail channel context; it remains unclear whether the customers' responses to these types of promotion will be similar within the OC strategy context (Sorkun et al., 2020). As a result, it is important to investigate how OC retail strategy contributes to enhanced performance of retail stores.

Leading retailers have begun efforts to integrate channels they operate and employ new method, aided by the broad use of e-commerce and advancement of innovative information technology in the retail industry (Gerea, Gonzalez-Lopez & Herskovic, 2021). Apart from smart devices, enterprises are actively implementing advanced information technologies including virtual displays, mirrors-fitting spaces, self-service shops, QR codes, service robots, and smartphone apps (Ieva & Ziliani, 2018). Starbucks, for example, has developed the Starbucks Reward app, which provides a consistent customer experience across all channels. Customers may check and reload their reward cards via their smartphones, the Starbucks website, or in-store. Any modification to a user's profile is updated in real-time, regardless of their locations. Majority of companies have incorporated these new retail channels that include mobiles, internet, website, YouTube, offline stores, and other social media platforms into their regular management and operation with an aim of moving a step further and transforming how retailers connect with customers (Rahman et al., 2022). Digitalization has a significant impact on physical shop retailing. If a client is interested in purchasing an item, it doesn't matter if he or she does so online or offline and businesses are looking for ways to integrate into platforms of OC. The utilization of a number of channels to communicate with customers and meet their requirements is referred to as OC retailing (Quach et al., 2020). From the standpoint of the buyers, OC has made it possible for customers to not only buy things from e-commerce platform, but also verify physical stock availability of the store (Gao et al., 2021). These MC integration efforts have gotten a lot of attention since they are client-focused activities that are supposed to improve customer's joy and create a positive experience for the customers. According to a recent survey of retail company professionals, OC strategy was ranked as the top priority problem for future retailing by 76 percent of respondents (Gerea & Herskovic, 2022). They intend to integrate the selling channels in order to provide a more efficient OC face

to the client. Customers now have a new way to communicate and transact with retailers thanks to the increase of OC (Riaz et al., 2021). Customers are constantly choosing integrated stores for their transaction and purchasing decisions as a result. Building an active OC, on the other hand, presents unique obstacles. From a customer's perspective, the expanding number of numerous channels, for example, adds to the complexity (Alexander & Kent, 2020). Understanding how retailers handle touch points distributed in online and offline platforms in an integrated way to help satisfy customers by offering outstanding buying experiences is critical and necessary. Despite their significance, the influence of OC's major qualities on consumer satisfaction or the purchasing experience has received inadequate research studies. Relevant empirical studies are hard to come by (Le & Nguyen-Le, 2020). The research study on OC, which currently has started to emerge as popular, is limited since it fails to take into account the new OC's unique traits and possible benefits. Customer experience and satisfaction was studied in the OC environment in Van Nguyen, McClelland & Thuan (2022) research, but the antecedents such as discrepancy, value perception, and authentic brand associations explained the general characteristics of the traditional distribution channel, not the OC. As a result, based on previous theoretical studies, the goal of the current study is to evaluate the effects of OC characteristics on satisfaction of customers.

1.2 Research problem

The expectations of the consumers regarding the shopping experience are continuously changing thus the retailers are anticipated to become available at every location of their customers. Currently, the online sales are experiencing significant boom and digital platforms are transforming and shaping the in-store expectations and behaviors for customers (Tyrväinen, Karjaluo & Saarijärvi, 2020). In the past, consumers were content with the shopping only in the brick-and-mortar retail stores.

However, today's consumers normally want to interact with brands through both the offline and online retail channels. For the majority of the retailers, the ever increasing need to be omnipresent has contributed to the development and implementation of the OC retail approach (Pangarkar, Arora & Shukla, 2022). In the OC retail approach, the customers normally enjoy unified shopping experience. In essence, failure to offer the unified shopping experience can cause the retail stores to lag behind their competitors.

The growth in the retail sector has been rapid over the last ten decades owing to the advancement of technology. The retail sector is also faced with many challenges that include the changes in the taste and preference of customers, the high level of competition and the advancement in technology (Song, Song & Sun, 2019). These changes have led to the enactment of new strategies by the retail stores across the world. With the increase in use of the technological advanced equipment, companies are nowadays realizing the importance of adopting OC strategies.

The main concern of the current retail stores is to satisfy the needs of the consumers by providing them with quality products and good customer experience. Hamouda, (2019) indicated that there is an increasing attempt for the retail stores to change their strategy from MC stores to OC stores by providing endless retailing experience (Hüseyinoğlu et al., 2018). Although integration of the OC retail stores can prove challenging due to factors such as high cost of implementation, technical expertise and huge resources, it provides the critical opportunity for the retailers to enhance their performance (Hietanen, 2022). Also, the success of OC retail approach mainly relies on perception of consumers regarding the product. Ürgüplü & Hüseyinoğlu (2021) argues that the OC capability of the retailers should accord with the ability marketing channels of retailers to offer similar products and service, notification, collection of products, and return options for customers. The retail environment is

being severely impacted by the rapid growth of online purchasing. Online shopping and e-commerce have seen significant growth. Customers are increasingly resorting to internet shopping as a distribution channel. Recently, for example, Cyber Monday, and White Friday has seen greater retail sales in Bahrain.

In recent years, retailers in Bahrain are not emphasizing on the mere existence across all channels, but with an emphasis of cross-channel quality, proficiency and to bring entire firm together and personalize customer's shopping experiences consistently across the channel. The Omni-channel capability elements and the function of logistics in omni-channel retailing have been identified. However, relatively little attention has been paid to whether and if so under what conditions building omni-channel capability produces the desired outcomes, that is a high level of operational LSQ and customer satisfaction. Thus, this study draws on the necessity to examine the role of flexibility and operational LSQ in Omni-channel retailing for customer satisfaction.

1.3 Research Objective

The purpose of this study is to reveal how Omni-channel capability (OCC) leads to customer satisfaction by investigating the mediating roles of flexibility and operational logistics service quality (OPLSQ). The main objectives of the study are:

1. To analyze how omni-channel capability and flexibility drives operational LSQ.
2. To examine the effect of omni-channel capability on customer satisfaction by applying flexibility and operational LSQ as mediators.
3. To find out the mediation effect of flexibility and operational LSQ on the type of retailing industry.

1.4 Research significance

Jones et al. (2021) argued that the line between the physical and digital world is increasingly becoming blurred. The emergence of the new technologies has brought new ways of interactions and communication between different people regardless of the geographical boundaries and demographic characteristics. People are nowadays becoming more dependent on advanced technology such as various social media platforms and messaging applications to communicate and interact with each other. Similarly, individuals expect to interact with the brands using these new forms of technology (Chang & Li, 2022).

This study adds to previous research in a number of ways. The research study proves important for the management of the current retail store to help improve their performance. The retail store sector is currently experiencing significant improvement owing to the rapid technological advancement. Currently, many retail stores are selling their products via online selling platform to reach a large number of customers and attract more sales (Paul et al., 2019). In essence, knowledge, no study has attempted at these characteristics in an OC setting. The findings of this study provide guidance to retailers on when and how to employ OC strategies to improve their tactics in OC environment.

The other important role of this research study is that it will be used as a tool to develop appropriate OC strategies that can lead to improve performance of the retail stores (Song et al., 2021). The management of various retail stores across Bahrain can use the information presented in the research study to develop appropriate strategies that can enable them to gain a competitive edge in the business environment.

This research study also makes several contributions to the development of the current and future OC retail stores. It assesses the effectiveness of the OC retailing based on three triads that including capabilities, service quality, and performance (Song et al., 2021). It can help inform on how the OC capability and flexibility can help enhance operational logistic service quality and eventually improves CS or organizational performance. The study achieves this by revealing and uncovering the mediating roles played by flexibility and operational logistic service quality. Essentially, the operational logistic service quality and the flexibility fully mediated the effects of OC capability on the satisfaction of the customers (Cao & Li, 2018). And finally, it will serve as a source of information for researchers on the subject of omni channel retailing.

1.5 The study settings

The research study used an effective research design to help answer the formulated research hypothesis. The research study used quantitative research technique to gather responses from the participants. The participants of the study consisted of customers with purchasing experience from a particular retail store. The research study used the convenience and snowball sampling technique to select the participants to take part in the study. In this research study, 253 participants were selected to take part in the research. SEM approach was used to analyze the collected data.

1.6 Research Terminology

Term	Definition
OC Retailing	"The ability of a retailer's marketing channels to provide the same level of service, assortment, notification (informing), return and delivery options from the consumers' perspective." (Yumurtaci Huseyinoglu et al., 2018)
Flexibility	"The capability of managing, resolving and adapting to unexpected, new or changing requirements." (Skipper and Hanna, 2009)
Operational Logistic Service Quality	"The ability to perform the promised service dependably and accurately." (Bouzaabia et al., 2013)
Customer Satisfaction	"customers' overall experience throughout their shopping journey, from searching products, researching, making a purchase decision, and receiving after-sales service from the retailers." (Azhari and Benet, 2015)

Table 1: Research Terminology

1.7 Organization of the Thesis

This research study is divided into five chapters. The first chapter is an overview of the research paper including research problem, objectives, significance, and research terminologies. Second chapter includes the review of the existing literature related to the study concepts including the development of hypothesis and conceptual framework. The techniques and procedures that will be used to collect research data are presented in chapter 3. Chapter 4 presents data analysis and results interpretations. Lastly, chapter 5 gives summary of the results, conclusion,

managerial implications, the limitations of the research, and recommendations for future research.

1.8 Summary

The first chapter introduces the background of the research study. It provided the overview of the importance of omni-channel retailing and how it can lead to customer satisfaction with the mediation of flexibility and operational logistics service quality, followed by research problem, research objective and significance, study settings, research terminologies and organization of the research study.

Chapter 2: Literature review

2.1 Overview of Omni-Channel Retailing

The growth in the implementation and adoption of the OC retail stores has attracted the attention of many scholars. There has been a growing interest to study the impact that omni-retail stores had on the performance of companies. The study by Melacini et al. (2018) evaluated that the omni-retail stores has significantly contributed to the growth in the sales volumes of the company. Mishra et al. (2021) also indicated that the OC retail stores have led to the growth in the customer base of organizations. Evidently, many customers nowadays depend on online marketing platforms to make marketing decisions. The retailers nowadays advertise and market their products through the various online avenues with an aim of attracting high sales and improving their profitability.

OC retailing is defined by Piotrowicz and Cuthberston (2014); Verhoef et al., (2015) is a progressive type of MC retailing that offers consumers an integrated shopping experience across all channels based on purchase, product exchange, and product return (Zhang et al., 2018). It offers personalized purchasing experience and ensures products and service availability across all channels and touch points (Kozlenkova et al., 2015). Understanding particular customer needs and creating a tailored shopping experience, merchants need a variety of technologies to track consumer behavior in multiple channels (Chopra, 2018). OC management necessitates a variety of skills from retailers (Akturk et al., 2018). To begin, retailers should maintain channel consistency by offering the same price, product range, delivery performance, and availability across all channels (Hole, Pawar & Khedkar, 2019). Cross-channel integration, or the capacity to allow customers to use more than one channel in the same transaction, is another needed competency in OC retailing (Cao

and Li, 2015). Additionally, to ensure consumers are engaged with merchants' contact points, an interactive and seamless social media approach is required (Friedrich et al., 2019). For example, engagement between the consumers and touch points can be enhanced by providing discounts when customers logged-in to the retailer's store social media (Yrjölä, Spence & Saarijärvi, 2018). Alexander & Cano (2020) indicated that OC retailing is the synergistic retail management approach that uses numerous available touch points and channels in a way that optimizes the marketing performance and customer experience. The goal of OC management is to improve customer experience, which is known as customer satisfaction in the literature (Kang et al., 2019). Customers that can use the channels fluidly are likely to be happy, which is an attribute of OC management (Xu and Jackson, 2019). OC management which is based on well properly designed logistics systems results in CS (Ma, 2017).

Many online retailers have been forced by the advancement in technology to change their business strategies to conform to the technological environment. The primary concern of today's retailers is to satisfy the needs of the consumers by providing them with quality products and good customer experience. Sorkun, Hüseyinoğlu & Börühan (2020) indicated that there is an increasing attempt for the retail stores to change from the MC stores to the OC stores by providing seamless and endless retailing experience.

In this research, logistic service quality is established as playing an important role towards improving the level of customer satisfaction. In essence, the logistic service quality is assessed as a crucial component and element of the OC retail strategy as well as the major source for customer satisfaction. It is also noted that flexibility is a core element that enables the customization of products and services concerned with specific features of various touch points (Gasparin et al., 2022). Despite the

importance of OC retail stores, few research studies have investigated how the customers respond to the OC retail stores initiatives and strategies during the shopping experience. Sandberg & Abrahamsson (2022) in a research study identified the shortfall in the research study focusing on OC strategies and suggested that the OC retail strategy is one of the promising areas of future research study in the global business environment. The OC retail strategy is not a new concept but has evolved gradually over the past decades to become a major source of competitive edge in the retail market. Although the advancement in technology has been considered as the main driving force for OC retailing, it has also been greatly driven by the dynamic changes in the taste and preference of customers. The current research study addresses the limitation of the previous research studies by assessing how the OC stores has contributed to the satisfaction of the customers by improving the logistic service quality. It shows that OC retail initiative can have great influence on satisfaction of clients' needs and improve their shopping experience.

2.1.1 Flexibility

Flexibility is defined as "the capacity to manage, resolve, and adapt to new or changing circumstances" (Skipper & Hanna, 2009). Since there are more options accessible during order fulfillment process, flexibility, or the ability to manage, resolve, and adapt to unforeseen, new, or changing requirements, is critical in OC retailing (Cai & Lo, 2020). Also, due to duration of time between order placement and item delivery, many retailers are faced with huge demands that may vary with time; for example, clients may purchase via online platform and pick the item at a physical shop (Hole, Pawar & Khedkar (2019). Because customers may alter their minds and/or recognize different demands throughout this time, businesses must be flexible to ensure customer happiness (Jocevski et al., 2019). According to Momen & Torabi (2021), CS in the OC retailing primarily depends on the operating channels

of the retailers in an integrated way. Given the emergence of the new retail channels and the associated touch points such as the mobile phone applications, websites and social media among others, consumers nowadays have several options concerned with the searching, buying, returning, and collecting products. Also, the consumers might prefer to use multiple channels to conduct a transaction. In essence, the consumer preferences might include checking the availability of a product, ordering products online, reserving the product or returning the products already purchased among others. Retailers face numerous adjustments as a result of the OC environment. Consumers in the OC can freely move from traditional retail stores to online shopping centers, mobile devices, and social commerce sites. As a result, the new environment necessitates deep integration across sectors like marketing and sales, inventory control, order fulfillment, and returns, so that operations are streamlined with market marketing campaigns (Radziszewska, 2018). The relationship between a consumer and a store in an OC environment is primarily defined by product flow, information flow, and money flow (Cotarelo, Calderón & Fayos, 2021). Consumers are given product and price information by OC retailers before placing a purchase. The retailer uses the order conformation to deliver the actual product to the location specified by the customers. By integrating the three phases, a well-structured OC may be both cost-effective and responsive to customer requests. Consumers gain from flexibility when shops are able to overcome unexpected challenges and fulfill requested modifications (Thaichon, Phau & Weaven, 2020). Customers may, for example, purchase things that appear to be available in the inventory but are actually not available or out of stock. Such a problem, however, can be mitigated or avoided if shops can locate available inventory through other means. Gawor and Hoberg (2018) says that similarly, rather than waiting for returned products to arrive at a centralized location, shoppers may drop off undesired things at a local business for an immediate reimbursement.

According to Kumar et al (2017), Showrooming is one of the phenomena appears in this perspective that is customers experience products at a physical store before purchasing them online and webrooming products after researching them online but purchasing them in a physical store. Changing payment alternatives and cancellation of orders are other examples of how consumers benefit from flexibility. Furthermore, the store can allow for confirmation of the final order as a flexibility function. This allows the clients to delete, add, or alter product characteristics. Additionally, customers can request changes to delivery locations and time of delivery. All of these scenarios necessitate flexibility as a competency that enables OC retailers to provide a smooth purchasing experience (Yu et al., 2015).

2.1.2 Operational Logistic Service Quality

Quality is one of the most crucial and difficult aspects of an e-commerce strategy, especially when it comes to customer experience. Fast delivery and exceptional service quality are the most crucial characteristics of meeting the expectations of e-commerce customers. Customer satisfaction in e-commerce is based on the difference between consumers' expectations and the actual e-service experience, similar to traditional services. According to Gil-Saura & Ruiz-Molina (2011), researchers believe that the quality of logistics service may influence customer satisfaction and that it can have a positive and significant impact on the fulfillment of consumers' expectations in e-commerce transactions. The operational logistic service quality is another area that has been widely investigated with scholars regarding how it improves CS in the retail industry. Recent studies on B2C e-commerce have demonstrated the influence of OPLSQ on consumer satisfaction (Song, Shi & Song, 2019). These studies looked into logistic service quality from the consumer's perspective in a B2C setting. A research study by Xu & Jackson (2019) indicates that logistic service quality is the outcome of the logistic

performance of retailers. The previous study also emphasized the critical role that the operational logistic service quality can play in OC retailing and promote the satisfaction of the customers (Momen & Torabi, 2021). Bouzaabia et al. (2019) found two logistic service quality factors, the operational logistic service quality and the relational logistic service quality, in their factor analysis. Operational logistic service quality, according to Bouzaabia et al. (2019), refers to "organizational ability to deliver promised service consistently and precisely", whereas relational logistic service quality is "the ability of the retailer or service provider to understand consumer wants and expectations". The three major elements of a retailer's logistics service performance are timeliness, availability, and order condition (Murfield et al., 2017). The features of operational logistic service quality, such as on-time product delivery and damage-free product delivery, short-ordering time, stock availability, return handling, and information correctness, address these three dimensions. In e-commerce, these logistics service characteristics are important considerations in increasing customer happiness (He et al., 2019).

2.2 The Importance of OC Retail Stores

OC has proven to be an essential distribution center for retail stores all over the world. It is the current retail shop trend that gives customers with an ideal marketing experience. Customers are more likely to choose an option that allows them to buy things anywhere, anytime, and in any way they choose due to the increased freedom and seamlessly integrated shopping (Mladenow, Mollova & Strauss, 2018). To put it another way, such a feature can improve client buyers' experiences. Specifically, approximately half of 2500 online customers polled by Facebook indicated they are likely to purchase from a retailer who made it easy to buy things across many technical devices, including mobile devices (Huang & Shi, 2021). Consumers want assistance via their preferred channel, whether it's e-mail, internet, phone, social

media, or in-person engagement at a physical store (Hüseyinoğlu, Sorkun & Börühan, 2018). Retailers who want to enhance performance of every channel use the MC strategy, while retailers who want to focus on total customer care and performance across conventional and digital channels use the OC strategy, according to Foo et al. (2020). Furthermore, offering real-time product information such as inventory availability, and pricing across numerous channels helps boost site traffic while also allowing online shoppers to compare their options. For example, after offering OC alternatives, Urban Outfitter saw a huge increase in sales, as OC shoppers' shopped frequently and spent nearly 2.6 times cash more than typical single-channel buyers (Marchet et al., 2018). Consumers in the OC can obtain reliable information about product quality, conditions and prices, and availability, which helps them make better purchasing decisions (Akter et al., 2019). Additionally, businesses with a solid OC strategy kept 89 percent of their consumers on average. The average retention rate of customers was approximately 45%, and a poll by Accenture found that about 68% B2C clients make a second product purchase from same merchant if it offered an OC option (Marchet et al., 2018). However, in the OC context, there is a lack of customer information. Understanding the impact of emotional motivation, amongst the most essential buying reasons, is a great challenge, for example. Customers, on the whole, love shopping and see it as a pleasant activity (Mrutzek-Hartmann et al., 2022). Shopping as a form of entertainment is more popular among offline customers. Sensory stimulation is seen as a significant aspect of the search strategy and in-store shopping experiences are handled as an information collection exercise. Attractive visual merchandising also encourages customers to stay longer and buy more (Song, Song & Sun, 2019). Despite the fact that the OC revolution is transforming consumers' buying habits, many shops continues to fall short of providing a faultless emotional experience (Cotarelo, Calderón & Fayos, 2021). As a result, despite past research findings, the

influence of OC on consumer satisfaction has to be defined, and more research is required.

As previously stated, an OC approach can provide a variety of administrative advantages to retail stores. To effectively benefit from these advantages, the retailer must first establish the fundamental architecture and design including technology infrastructure and foster organizational culture required for a customer-friendly OC development and implementation.

2.2.1 Impact of Technology on Omni Channel Retailing

The retail sector keeps on changing and evolving given the dynamic global business environment. Due to ever changes in technology, demanding consumers, and changes in buyer's behavior, retail chains are realizing markets are becoming increasingly competitive given the high number of rival firms and similarities in products and services offered. Currently, it has become challenging for retail outlets unable to adjust and overcome the market difficulties achieve sustainable and remain competitive in the industry (Kembro, Norrman & Eriksson, 2018). The firms in the retail industry with ability to thrive and succeed are the ones proactively reacting and adapting to digital and technological pressures by enhancing the consumer experiences, designing effective retail distribution networks, and implementing OC approaches. Retailers can increase availability, improve leads and sales, and combine online touch points with omni channel. According to Hurriyati & Gaffar (2021), omni channel retailing is a strategy implemented by the companies to enhance the experience of customers and maximize the performance of the organization. Although the OC retailing has not experienced full development, it has been a source of competitiveness for many retail stores. In essence, advanced technology has enabled the retail stores to incorporate both their physical and online retail stores. As a result, it provides the customers with the opportunity to choose the

appropriate channel to shop and purchase the products. The OC is primarily a consumer-centric channel that features holistic shopping experience regardless of the retail chains used.

An OC approach is known to improve customer experience and increase the number of purchasing platforms and channels available to the targeted customers in the market. This can include mobile, online, or physical stores purchasing channels. Revenue and visitors rise as a result of the knowledge of various purchasing methods. Based on a research study conducted by Google, about 72 % of customers are likely to visit a retail store after finding the information online (Gasparin et al., 2022). By utilizing several platforms, OC retailing can boost earnings obtained from online sales of products and significant visitation to physical retail stores which lead to additional revenues. Furthermore, OC shopping enables clients to begin or end purchases across multiple channels. A consumer can now check whether an item is in stock and book it online for pickup at the local shop location (Gasparin et al., 2022). An OC store is a corporation that integrates its information, physical distribution, and consumer experience across all channels to give any services to the customer at anytime, anyplace. Retailers' approaches to the digital channel varied even more. With all of this dramatic effect, it's evident that merchants need to understand how the internet's role in the new channel system is changing. Customers who want to buy a screen at a physical store, for example, are more likely to begin their search online (Martinez, Calvo & Salgado, 2021). Customers benefit from this constant knowledge since retailers can establish relationships with clients and deal with them on a personalized, instant level via a range of purchasing channels.

Another Harvard research study discovered that multichannel shoppers can be inclined to interact with a store's channels or platforms such as their digital touch points. This encompasses using smartphone apps, business coupons, and interacting

sales team, self-serve shops, and other electronic touch points. Likewise, the study established that multichannel clients are more valued than mono customers, based on the analysis of 30,000 buyers (Song & Song, 2021). Supermarket chains must develop OC retail initiatives beyond just having a digital or retail outlet existence in order to succeed in the challenging retail sector. Simply put, they need to offer their clients with an effective and coordinated shopping experience by establishing a healthy physical store inclusion such as tradition physical stores and harnessing number of online channels such as social media platforms or text messages, devices including mobile or desktop, and, most importantly, trying to leverage the current technological touch points such as kiosks or smart shelf technologies (Hüseyinoğlu, Sorkun & Börühan, 2018). The retail sector is being disrupted by a range of electronic touch points. Integrated kiosks, adaptive shelf devices, and self-serve smartphones are all examples of this. According to a Forrester survey, electronic touch points account for roughly 50% of overall retail transactions in the United States (Foo et al., 2020). Furthermore, according to a Nielsen consumer survey, retailers with computer terminals within checkout counters, for example, saw up to a 36 percent increase in revenues (Radziszewska, 2018). This shows that an effective OC retail approach begins when businesses complement existing plans with the most up-to-date digital touch points and drive sales by customizing information to consumers at the correct place and time.

2.2.2 Identifying Omni Channel Retailing Requirements

The retail market is dynamic environment which is continually changing and influenced by many technical and competitive factors. Consumer's buying trends are constrained, restricted, and competitive. Technological forces and advances are nowadays changing how people purchase products and services (Hayes & Kelliher, 2022). The retail business environment is rapidly transforming and firms in this

sector should find new strategies and approaches to adapt to technological pressures, changing customer behaviors, or other challenges. In essence, OC retailing is one of the appropriate solutions to address such challenges in the retail business environment.

It can prove challenging to implement an effective OC retail strategy. It necessitates merchants creating many touch points, standardizing their consumer experience, integrating their digital and offline shop presences, and improving each consumer's retail experience all in one place (Moldabekova et al., 2020). This is difficult to achieve, particularly during the era when data and information are stored in huge database. A retailer, for instance, might have the required legacy applications that should be merged with a phone app and CRM application and systems. Due to this, the retail stores should incorporate several applications, procedures, and systems. This integration difficulty becomes increasingly difficult as newer develops. Despite its complexity, more OC use is projected to benefit both the company and the client. How merchants handle consumer contacts and touch points in dealing with numerous channels is a significant retail marketing concern. Retailers may improve their product and service offerings by interacting closely with customers at many touch points and observing their behavior.

This problem could benefit from a Service Oriented Architecture (SOA) solution. The application operation and functionality is typically separated down into unique and discrete services and reused between various online platforms and channels. On the other hand, SOA is hefty and lacking future-proof characteristics and features thus makes it a bad alternative for OC success (Dhaigude & Mohan, 2021). This is the reason why the research advocates an API-led link approach to integrating, which incorporates SOA ideas and applies to current API. Specifically, the type of

integration integrates connection and operational services using APIs to discover framework that will increase parts.

Retailers may simply connect numerous systems and apps, including webpages, smartphone apps, and ERPs, using API-led connection to normalize their online shopping experiences and connect their digital and offline presence in the world through plug-and-play capability. This enables retailers to offer multiple experiences and applications online in a way that is nimble, affordable, reusable, and prospective. API-led connection is already being used by a number of companies to help them advance their omni - channel initiatives (Cotarelo, Calderón & Fayos, 2021). One of the customers in North America is a great example of all this. The merchant operates a brick-and-mortar store where customers would rent things rather than buy them. You rent sofas, televisions, desks, as well as other furnishings for a monthly payment. This store, however, had to change their business strategy and embrace features of OC retail as a result of advanced technology and changing customer behaviors.

The retail store customers understood that the amount of brick-and-mortar stores business have limits to their income growth prospects, so they chose to form a range of different collaborations with other merchants (Hole, Pawar & Khedkar, 2019). In partnering online shops, the partnership required the installation of interconnected touch - points, such as electronic kiosks and stalls. As a result, the customers are able to implement a successful OC approach, and those retailers were able to take advantage of the partner's offerings via the electronic kiosk. Finally, clients in retail segments can implement an efficient omni - channel model using an API-led connection technique to open additional buying channels from customer buying things at kiosks to actual purchases being generated on the backend (Akter et al.,

2019). In essence, retail establishments can now engage their customers in novel and creative ways.

2.3 Barriers, Challenges, and Benefits

Despite its growing popularity, OC fulfillment presents a variety of management issues due to the novelty and inherent complexity of multimedia communication flow and MC ordering process and product delivery (Yrjölä, Spence & Saarijärvi, 2018). Furthermore, the OC strategy causes a number of modifications in e-corporate retailer's culture and business practices. If one order fulfillment method, that include direct shipping to clients, fails, the retailer should consider other possibilities, such as physical store collection via local warehouses or distribution centers (Raza & Govindaluri, 2021). This kind of adaptability necessitates a transformation in the e-distribution e-tailer's methods, as well as new supply chain processes. Employees' fear of using a new routine and business approaches may be heightened due to these changes. As a result, in an OC environment, the retailer might confront considerable organizational opposition from majority of employees. Other issues to consider are Cannibalism, according to the Wall Street Journal, Walmart began charging more costs for merchandise online than in stores in order to increase in-store visitation. Several order possibilities via various platforms such as online purchase and store purchase can lead to pricing differences, and some customers might be attracted to a channel that offers low prices and are convenient as compared to alternative channels (Hole, Pawar, & Khedkar, 2019). This could lead to a channel competition and conflict. In order to improve the online customer purchasing experience, e-tailers frequently allow customers to return unsatisfactory items across multiple channels such as in-store returns (Momen & Torabi, 2021). Amazon, for example, allows customers to return things bought online to local department stores. Because OC tends to increase the frequency of product returns as

compared to the physical stores channel, and that handling product returns tends to significantly increase the cycle time of order, the cost associated with managing returns in the OC environment would be significantly higher.

The focus of this stream of OC study is on barriers encountered during implementation or management, as well as the benefits of the OC strategy. Kembro, Norrman & Eriksson, (2018) discussed the obstacles that must overcome in order to reap the benefits of an omni-channel approach. These barriers were highlighted by Momen & Torabi (2021) in the research on OC strategy. Those authors have pointed out the difficulties in comprehending the necessity to obtain and alter resources, as well as channel convergence, which are intertwined. The ability to provide a consistent and seamless experience to customers across different channels; the sharing of shared resources; the development and incorporation of data among all channels, resulting in a single perspective of the customer; and the use of certain channel efficiencies are all additional challenges. Many shops find these duties difficult. Rather than establishing a new IT architecture devoted to an OC setup, channels are frequently simply integrated with existing systems. Furthermore, these problems are accompanied by a new one: the need for expenditure to acquire or swap resources in order to achieve channel integration (Mladenow, Mollova, & Strauss, 2018). When multiple channels are administered in an interconnected solution, not just redesign but also the resulting investments in the appropriate IT architecture should be addressed. The rationale of channels is also an issue since channels are measured separately. A channel may not be economical when used alone; however, when used as part of an OC strategy, a single channel can help boost overall performance. As a result, determining the true performance of single channels is more challenging. Furthermore, Mladenow, Mollova, & Strauss (2018) identified resource distribution across channels as a challenge, which is compounded by the

solitary assessment of channels. Marchet et al. (2018) also stated the advantages of greater customer value, enhanced client experience, customer loyalty, improved performance through channel integration, increased organizational flexibility, and enhanced customer awareness as a result of an upgraded database. In addition to economies of scale, Kembro, Norrman & Eriksson (2018) cited better customer understanding, distinct channel options (Mrutzek-Hartmann et al., 2022), reduced channel dispute, price predictability (Huang & Shi, (2021), improved intra-organizational communication, enhanced customer interaction, enhanced service quality (Marchet et al. 2018), and the capacity to compensate for a channel's vulnerability with another channel as advantages.

Although there are significant challenges faced by the retailers when implementing OC strategy, it has become apparent that there are several benefits associated with OC strategy. One of the major benefits of the OC retail stores is that it leads to the better experience of the customers (Hole, Pawar & Khedkar, 2019). In essence, the OC emphasizes on the user experience across all the digital devices used to shop and purchase goods and services (Jiu, 2022). The focus on the customer experience makes it an ideal way to improve customer loyalty. OC retailing also leads to cohesive identity and brand strategy. It creates a seamless approach and strategy across various channels which lead to building of recognizable and identified brands. The retail organization should base their OC business strategy with the needs and values of the customers (Bell, Gallino & Moreno, 2018). The focus on the overall experience as well as working with brand guidelines to target each channels can ensure that there is a comprehensive brand strategy which eventually translates into increased customer loyalty.

Another benefit of the OC business approach is that it leads to increased revenues of an organization (Li et al., 2019). The OC retail strategy encourages consumers to

engage with their brands across the multiple channels and touch points. The increase in the number of avenues where the customers interact with their brands can lead to an increase in the sales and revenues of the company. The OC distribution also leads to enhanced distribution of data within an organization. It helps companies to improve not only the user experience but also the data analytics (Quach et al., 2020). The improvement of the data analytics can be accomplished by tracking the engagements across the various channels and brands to have a good understanding of the customer journey (Zhang, Xu & He, 2018). Such strategy can help an organization to better design marketing strategies that can provide an advantage in the global business environment.

2.4 Findings of the Past Research Studies

The transition from MC to OC has been helped by increased digitalization of retailing activities during the previous two decades. In the last decade, both practitioners and academics have begun to pay more attention to the OC. Scholars, such as Huang & Shi (2021), provided the leading research studies on the OC strategy. To further explain, Kembro, Norrman & Eriksson (2018) performed a research based on a case study approach, local women's apparel stores to look at the extent of rivalry between internet merchants like online retailers and offline retailers. Their research found that while selling mainstream products, online retailers faced intense competition from offline merchants, whereas when selling specialist products, the latter was completely unaffected. Their research focuses on the investigation of cross-channel rivalry in terms of product types. Song & Song, (2021) discussed the OC environment's possible obstacles and opportunities for providing product information and fulfilling product orders using mainly secondary data sources. They recommended that all types of retailers use marketing techniques that decrease friction at each stage of purchasing process to succeed in the OC world.

The combined online and offline retailing channel development approach, such as purchase online and pick up in store alternatives, is a major component of the strategy. Based on focus group comments, Song & Song (2021) investigated the role of information technology such as mobile technology plays in designing and developing innovative OC methods. They also noticed that social media is playing an increasingly important role in promoting the OC strategy. By improving the customer's accessibility to product information and capacity to shop across all accessible channels, the OC strategy, according to Jones et al. (2021), could strengthen and support business risk intelligence and resiliency, particularly in industries with high risks like oil and pharmaceutical. One of the first studies to link OC to risk management in a corporation is theirs.

To follow up on the OC studies described before. Hayes & Kelliher (2022) concentrated on the OC strategy's customer views. They saw that OC approach allowed customers to freely switch from a particular channel to another when conducting the same transaction, which improved customer experience. According to the findings, such an experience could aid in the development of a close relationship with the consumer as well as the establishment of the company's brand. Zhang et al. (2021) developed a news-vendor framework to calculate the retailer payoff associated with choosing online or offline retail channels in an OC environment, which was different from previous studies. They discovered that the offline channel achieved through the physical store display resulted in a decline in retailer's earnings due to the risks associated with availability of the product. They also came to a conclusion that information like product availability on a retailer's website were lucrative for the retailer due to reduced customer uncertainty. Similarly, Bell et al. (2013) investigated how a lack of complete product information before purchasing a product affects customer demand uncertainty and operating

costs in the omni-retail setting. They discovered that offline showrooms improve sales inside the trade area of online retailers and web channels. They also came to the conclusion that showrooms' ability to generate incremental demand was critical to the OC approach since it might reduce product returns. The development and application of the OC retail approach has become an important practice in the current global business environment. Several research studies have focused on determining the impact of the OC strategy on the performance of retail stores. Other studies have focused on how the OC retail strategies have contributed to the retention of customers. Many of these research studies have come with a conclusion that omni channel retailing have helped to improve the performance of the retail stores and improve the customer experience. Previous research in this field has primarily focused on characterizing elements that influence consumers' varied behaviors in the presence of OC in order to better understand the drivers of channel choice (Raza & Govindaluri, 2021). If a shop understands the factors that influence OC preference, it can deliver customers with a more satisfying experience across all channels. Past research in this area has aimed to find characteristics that can describe the major drivers of consumers' channel choosing behavior. These characteristics are based on channel properties, customer channeling experience, social pressure, and heterogeneity among consumers (Hole, Pawar & Khedkar, 2019). They claimed that consumer personal characteristics and demographics play a role in customer channel selection. As a result, OC's success is contingent on both technological advancement and customer awareness. Song, Song & Sun (2019), based on a questionnaire study, have discovered critical elements driving an OC experience. Brand recognition, personalization, perceived value, and technological preparedness are all important considerations to consider. Brand popularity had a significant impact on the OC purchasing experience; however perceived brand value had a negative effect on mobile shopping experience, according to the researchers. Zhang et al. (2021)

concluded that retailers should employ many touch points at the same time to improve the overall OC experience of their customers based on their findings. Despite the fact that all of the OC studies are useful for understanding the main principles and motivating factors supporting OC tendency, and also the OC potential, such past findings did not reveal particular ways that OC can be structured and designed for actual retail store settings, or what unique opportunities and challenges must be addressed (Hüseyinoğlu, Sorkun & Börühan, 2018). To fill a gap in research, this study presents an OC structure that is favorable to the effectiveness of enterprises, as well as genuine issues and opportunities related with OC approach.

2.5 Omni Channel and Customer Experience

The OC consumer experience is a multidimensional strategy that unifies all consumer interactions to create a throughout seamless experience. In order to deliver a positive customer experience, many businesses felt obligated to have a deeper understanding of the entire client journey (Kembro, Norrman & Eriksson, 2018). Recently, the success of fashion businesses has depended heavily on the customer experience. As a result, gaining a competitive advantage in the industry increasingly necessitates the successful execution of OC strategies and absolute knowledge of consumer touch-points. OC customer experience, according to Zhang et al. (2021), "is a multichannel method in which retailers give a consistent, integrated, and seamless experience regardless of the channel used". The five aspects of customer experience, which are connectedness, flexibility, integration, coherence, and customization, have been used by the author to conceive OC consumer experience. To alleviate problems and disagreement in the usage experience, Song, Song & Sun (2019) proposed many retailers use their traditional physical store experience and ensure online retail settings considerably emphasize on targeting client's wants and tastes using a mixed method approach. Customers' purchasing cycles are typically

unexpected for multichannel clients, as they have a variety of channels via which to explore, select, and buy items (Ürgüplü & Hüseyinoğlu, 2021). Provided empirical evidence and proposed that multichannel clients follow a non-linear sales funnel and are more likely to integrate different stages of the purchase process.

Therefore, in order to offer a distinctive customer experience, firms must concentrate on strategies that address a non-linear purchasing path (Melacini et al., 2018). Channel connectivity and seamlessness were identified as critical elements in building an OC customer experience. It simplifies all interactions and allows customers to interact with retailers across several channels, allowing for smooth transitions within the same engagement experience. To improve the consumer experience, it was stressed that the omnichannel distribution and fulfillment network be utilized. Retailers who use fulfilling tactics can outperform centralized distribution, reduce order delays, and ensure availability of products across several channels (Paul et al., 2019). A well-thought-out OC design will foster the ability to provide a consistent customer experience and eliminate the perplexing situations that lead to consumer dissatisfaction. As a result, merchants must adopt a comprehensive OC approach combining advantages of physical retailing with value-added online purchasing experience in order to provide a consistent customer experience.

OC is a retailing approach that integrates all sales channels to provide customers with a consistent experience by removing old barriers between them (Paul et al., 2019). Customers are restless, and they expect eligible that are tailored to their unique requirements. Despite the fact that majority of retail firms have adopted OC approach, there is a significant disconnect between consumer perception of quality and brand OC performance statistics. According to a previous research, OC merchants are not effectively servicing consumers with their current omnichannel system (Song et al., 2021). Another survey found that, while claiming to be

optimized around OC, most retailers like to operate each retail channel separately (Song et al., 2021). As a result of this ongoing shift in consumer behaviors, some retailers are incentivizing themselves to satisfy the expectations of these new clients by giving a unified retail experience with interconnected OC encounter. Researchers and industry experts realized that customer experience is most important determinants of the consumer decision process as well as the sustainability of a store's OC approach (Song et al., 2021). As a result, merchants must figure out how to enhance the OC experience and what variables might help with seamless processes and relationship fluency. In an OC setting, fundamental study has earlier been undertaken to identify the significance of customer experience. Modern OC commerce research has looked into OC connectivity, logistics, and purchasing value (Pereira & Frazzon, 2021). Prior research on OC customer experience has also identified significant elements of the consumer experience as well as its impact on shopping intention (Pereira & Frazzon, 2021). The OC customer experience has been highlighted as specialized in several studies (Pereira & Frazzon, 2021). Despite the growing relevance of OC retailing and customer satisfaction, little research has been done on OC variables that contribute to a continuous customer experience. Furthermore, there are few studies that have looked at both OC customer awareness and consumer experience at the same time. Customer behavior across channels proves to be a significant driver of consistent positive experience and purchase intent (Chang & Li, 2022). Businesses today are always optimizing their OC strategy, making it even more critical to keep an eye on shifting customer behavior trends which might impact their experiences. Moreover, there is a scarcity of literature on OC retailing in across the globe. The majority of recent studies have focused on the growth and promise of OC retail operations (Chopra, 2018). Furthermore, a thorough understanding of OC variables generating a great customer experience is required, as is careful analysis of Omni channel consumer habit. This study used quantitative

research approach to analyze elements connected with OC shopping that contribute to a pleasant OC experience and improved consumer attitude in the retail sector. The research study indicated that there is a positive link between the consumer attitude and a good store experience. In essence, as retail stores attempts to reach customers outside their brick-and-mortar presence, OC commerce has become a popular method. By implementing OC strategies and engaging consumers across numerous touch points, the global retail firms are attempting to transition into lifestyle brands (Chopra, 2018). The research study indicates that OC retailing can create a positive customer experience. Through a positive customer experience, the retail stores can help attract the attention of customers and improve their loyalty. Improving the customer loyalty is the key to the competitiveness of retail stores in the current global business environment (Bell, Gallino & Moreno, 2018). The new retail stores strategy that combines online marketing strategies and physical retail stores provides customers with various options to shop and purchase the desired products (Hole, Pawar & Khedkar, 2019). This creates convenience to customers as they are able to purchase products and services at any of their desired location and convenient stores.

2.6 OC Integration

Retailers can build customer loyalty by blending the greatest including both offline and online shopping experience through cross-channel integration and the shift to an OC approach (Yrjölä, Spence & Saarijärvi, 2018). Hüseyinoğlu, Sorkun & Börühan (2018) defined channel connectivity as the collaboration and coordination of various OC strategies and processes, such as buying process and return, promos, price, and delivery, so that direct interaction across all touch points seems to be more effective and satisfying than interacting with a single network. Multichannel (MC) and cross-channel (CC) were previously used as retail management strategies for managing numerous channels. MC, CC, and OC are all similar in appearance. However, one

of the most significant contrasts is the degree of integration. MC is utilized when two or more channel participants are used, but channel interaction is low, whereas CC is a blend of MC and OC (Ahmed & ul Hassan, 2021). According to Chang & Li (2022), MC is often referred to be a non-integrated business, whereas OC necessitates real and complete integration. OC considers not only the number of channels but also the relationships between retailers and consumers when determining the amount of channel integration. According to Hole, Pawar & Khedkar (2019), there are two types of OC integration. Chang & Li (2022) discovered OC integration was a major determinant of an effective and successful OC approach and claimed that multiple models could not turn into the OC model without absolute unification of solid channels. Many studies have focused on increased market value associated with OC integration solutions in recent times. It blurred the boundaries between retail and online customer contact points, allowing customers to seamlessly shift their purchases among devices simultaneously. OC retailing provides a broader approach to synchronizing and integrating across the channels in improving consumer experience while maintaining health and throughout functional proficiency (Yrjölä, Spence & Saarijärvi, 2018). Dirsehan & Dirsehan (2020) indicated that OC retail approach is an integrated retailing offering the effortless, seamless, and high quality consumer experience that occurs between or within retail channels. The recent literature reviews on OC identifies multidimensional nature of OC integration based on unification of online and offline resources, channel consistency, and order processing with integrated approach, all of which are required for a good customer experience.

The integration of OC in the retail sector has become a critical competitive tool for many retail stores interested in attracting huge base of customers and increasing their sales and profitability. According to Bell, Gallino & Moreno (2018), the OC

approach of sales attempts to provide the customers a smooth and positive experience whether customers making a purchase online through a mobile device or desktop or in brick and mortar store. under the OC situation, the complexity of marketing efforts and client comprehension has expanded even more. For example, it entails considerable use of information technology to synchronize offline and online resources, and the shipment procedure is no longer uncomplicated because offline and online shopping overlap (Dhaigude & Mohan, 2021). In essence, the OC approach implies that there is integration between the promotion, distribution and communication channels. In the OC business strategy, the customer service representative or personnel interacting with customers in a retail store can immediately track and reference the previous purchases of a customer and their preferences (Li et al., 2019). Also, the customer representative on the online marketing chat platform of phone also has access to the information of the customer thus can make informed decision regarding the appropriate marketing strategy to use. The integration of the OC retail approach should also incorporate inventory management practices. It should be designed in a manner that can enable the customer to use their desktop to check the inventories available in different retail stores by accessing the website of the company. This can enable them to make orders from the online platform and pick them from the selected location. Zhang, Xu & He (2018) indicated that the omni-approach business strategy can improve the customer service since it provides multiple communication alternatives and options. The integration of different channels in the retailing sector can also lead to more flexibility since the customer can easily switch between the various channels throughout their interaction process. Jiu (2022) shows that the OC marketing allows for the cooperation and integration of the various channels that firms use to interact with the targeted customers with the primary goal of creating and enhancing the

consistent brand experience. The OC marketing approach should consist of both the physical stores and the digital marketing platforms.

2.7 Summary

This chapter provided an overview of the study's primary topics i.e., omni channel capability, flexibility, operational logistics service quality, customer satisfaction and a comprehensive look at the entire study. Each concept was thoroughly discussed.

Additionally, the shortcomings of the existing literature were also noted, and it was discovered that there is not enough research on the role of omni channel capability on customer satisfaction through the mediation of flexibility and operational logistics service quality.

Chapter 3: Methods and Procedures

3.1 Research Hypothesis

The hypothesis development in research is concerned with the formulation of the argument that should be subjected to test to help in answering the established research questions. The hypothesis thus consists of the statements that the research outlined as important in answering the main research questions. In the current study to explore the OC capability on the customer satisfaction, the research study developed hypothesis based on the gaps identified in the section of literature review. According to Momen & Torabi (2021), CS in the OC retailing primarily depends on the operating channels of the retailers in an integrated way. As a result of the advent of new retail channels and the associated touch points such as the mobile phone applications, websites and social media among others, consumers nowadays have several options concerned with the searching, buying, returning, and collecting products. Also, the consumers might prefer to use multiple channels to conduct a transaction. In essence, the consumer preferences might include checking the availability of a product, ordering products online, reserving the product or returning the products already purchased among others. Mladenow, Mollova & Strauss (2018) argued that such consumer preferences can be achieved only if all the available channels have same consistency and effectiveness. As a result, it proves important for the management of retail stores to provide a smooth flow across all the available channels by providing the services such as the home delivery, order online, click and reserve and click and collect among others. The retail stores should also consider the reviews from the social media to make necessary adjustment and improvement in the assortment decisions of the products and specify to the customers on the return and delivery alternatives (Huang & Shi, 2021). Arguably, these OC processes and strategies leads to the interactions among different touch points which eventually

enables flexibility in the choices of the customers (Marchet et al., 2018). As a result, there will be an increased satisfaction of customers due to the unique and customized solutions aimed at meeting the specific needs and product orders likely to change based on payment, nature of product, delivery timing, and return. This leads to the formulation of the first two hypotheses for the current research on the impact of OC capability on customer satisfaction. The two hypotheses in this case are as follows.

H1: Omni-channel capability is positively related to flexibility.

H2: The relationship between omni-channel capability and customer satisfaction is mediated by flexibility.

The previous research studies indicate that there is a positive impact of the operational logistic service quality components in the online retailing. Marchet et al, (2018) in a research study about the electronic retailers indicated that the quality of the physical distribution of products plays a critical role in the satisfaction of the needs of the customers. According to Kembro, Norrman & Eriksson (2018), the retailers who are capable of processing returns well are likely to improve customer satisfaction. Song & Song (2021) demonstrated in a research study that customized logistics service can help enhance the satisfaction of the online shoppers. Similarly, the positive and direct effect of operational logistic service quality components on the satisfaction of the needs of customers in OC retailing is outlined. Hayes & Kelliher (2022) also indicated that the delivery time of the products plays an important role towards influencing CS level. Jones et al. (2021) research study emphasized on the critical role of the availability, timeliness and order conditions as the main elements that enhances customer satisfaction.

Past research studies also suggest that players in the retail industry should adopt high level of the operational logistic service quality to ensure that the customers are

satisfied (Jones et al., 2021). However, the current research study propose that retailers should begin by adopting appropriate OC capabilities to ensure that there is high level of operational logistic service quality and enhance the opportunities to return or collect the items conveniently and specified stores. This can lead to a decrease in the return and delivery times and the related inconvenience. The two important construct of the OC capability is the cross channel and the channel consistency. The cross channel and the channel consistency can increase the possibility that the customers will find the desired product in the stock whenever needed (Hayes & Kelliher, 2022). In addition, the two construct of OC ensures that the products are available to the customer promptly and in a convenient manner. locations or points. In the event of the non-conforming products and services, the customers are likely to experience a certain degree of the satisfactory rectification of differences through the easy returns of items using any available channels used by the customers to purchase the item (Song & Song, 2021). It implies that regardless of the channels that a customer use to purchase an item, the effective performance of the logistic concerned the mentioned issue can help strengthen the positive feelings and perceptions of the customers towards the retailer. Based on these findings, the study developed three hypotheses that are as follows.

H3: Omni-channel capability is positively related to operational LSQ.

H4: Operational LSQ is positively related to customer satisfaction.

H5: The relationship between Omni-channel capability and customer satisfaction is mediated by Operational LSQ.

Implementing OC approach and strategy also requires that there is a continuous realignment in the distribution of the retail channels (Song & Song, 2021). As opposed to other multiple channels consumers, the OC customers require the retailers to fulfill their orders in a variety of ways (Hayes & Kelliher, 2022). The OC

retailers also desire that the channels become visible for the availability of the products, the items information, and order tracking system. This can necessitate two critical features of flexibility which includes integrated information system and the inventory management (Momen & Torabi, 2021). The inventory management system allows the different ways of return and delivery options while the integrated information system allows for the channels synchronization to help customize the products for the specific logistic requirements of the OC customers (Mladenow, Mollova & Strauss, 2018).

Majority of the customer normally seeks for the flexibility throughout their shopping experience and process. In essence, they seek the knowledge for any changes in the availability of the products. The change on product availability also requires options and alternatives to make changes on the ordered items before delivery as well as demand of the post-service consumer service (Huang & Shi, 2021). In the current OC environment, all these elements can be achieved and thus a customer can receive ordered items with the necessary changes and with no issues in return and delivery and the desired place and time, which eventually improves operational logistic service quality. As a result, it is argued that the provision of high level operational logistic service quality needs flexibility (Kembro, Norrman & Eriksson, 2018). The findings of these led to the development of the sixth hypothesis which is as follows,

H6: Flexibility is positively related to Operational LSQ.

In the above paragraphs, the discussion of the association between the flexibility, OC capability, operational logistic service quality, and CS was accomplished. Besides, the research study proposed mediation roles of individuals with regards to operational logistic service quality and flexibility on CS. The current research study

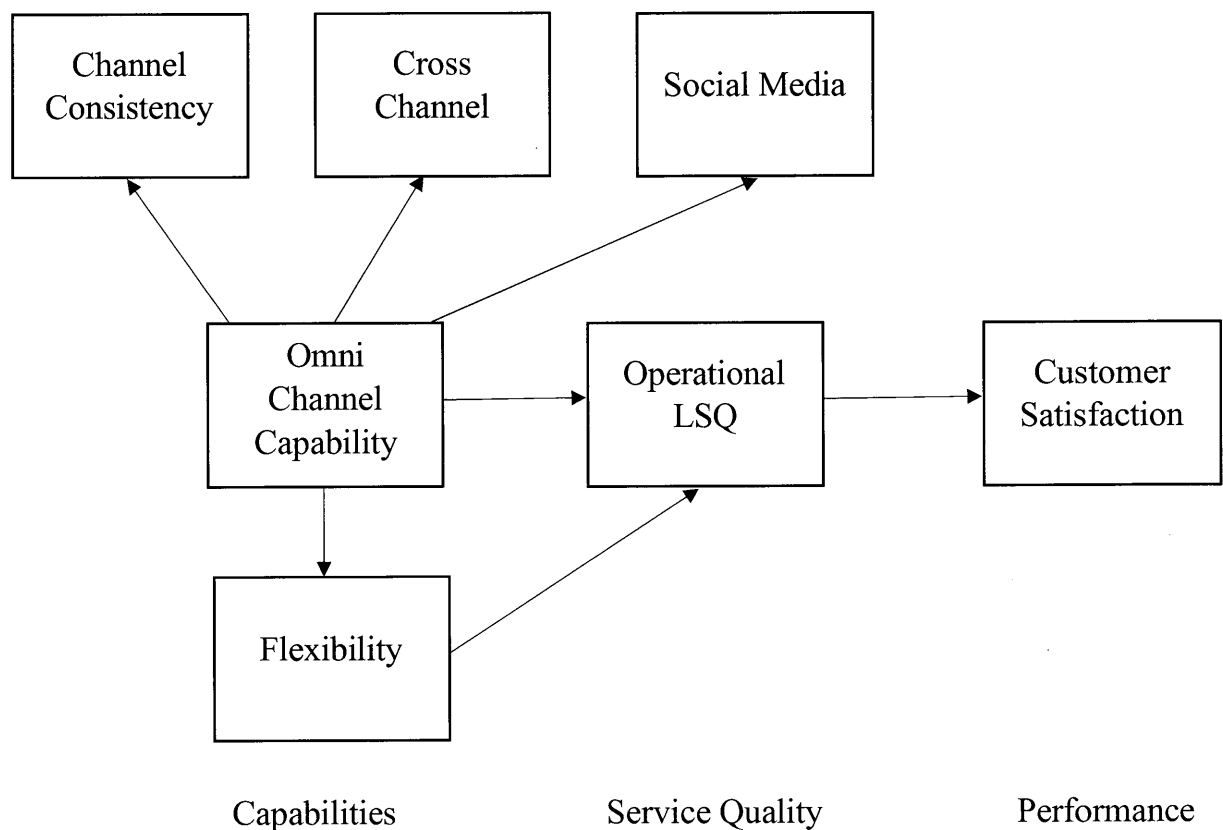
investigates the double mediating impact. As a result, this leads to the development of final hypothesis, which is as follows,

H7: Omni-channel capability is positively related to customer satisfaction through double mediation of flexibility and operational LSQ.

3.2 Conceptional Framework

In order to accomplish the aims and objectives of the research study, a conceptual framework was developed based on the purpose and established objectives. The conceptual framework model is important in guiding the researcher in accomplishing the needs of the research study. As a part of this research study, the developed conceptual framework is shown in the diagram below.

Figure 3.1: Conceptual Framework



3.3 Research Design

The research designs describe the steps and procedure that a research study followed in order to meet the desired aims and objectives. It describes various elements that include the sampling and data collection method, methodology and data analysis among others. A good study design will clearly describe the aim and the technique used will be consistent with the research questions. (Sekaran, 2010).

This research examines the impact of omni channel capability on customer satisfaction through mediating role of flexibility and operational logistics service quality in Bahrain. This research is primary in nature hence a descriptive survey design was employed for the collection of data. The goal of a descriptive research design is to learn more about the subject of the study while also allowing the research to gather, summarize, present, and evaluate the data. For this research, the data was gathered using quantitative approach and determine the correlation between variables (Babbie, 2010); considering that the goal of this study is to quantify and analyze the nature of the relationship between omni-channel capability and customer satisfaction. According to Arghode, (2012), researchers can also collect and analyze numerical data to test theories or hypothesis using quantitative approach. Furthermore, this method allows the results to be generalized. For this study, the survey was employed as a means of data collection method.

3.4 Research Method – Qualitative versus Quantitative

The term “methodology” refers to the techniques used by researchers to address the research questions. Research methodologies are divided into several categories, mainly qualitative, quantitative, and a mixed method, which includes both (Venkatesh et al., 2013). Since mixed methodology incorporates both qualitative and quantitative features, it is situated in the middle of the continuum.

Problem solving and theory development are the primary goals of qualitative research. Researchers accomplish these goals by observing daily life, learning about participants' lived experience, understanding their points of view, and identifying patterns in behaviors or events. For studies that need to be analyzed, characterized, and understood, qualitative approach is more appropriate (Hair et al., 2003). Qualitative technique is useful when there are no explicit variables to examine and the researcher want to understand how or why something occurs (Creswell, 2002). In quantitative research, the primary goal is to evaluate theory. According to Gammon, (2013), researchers do this by performing experiments, testing of hypothesis and establishing relation between variables by identifying correlations or causal relationships. Quantitative methods concentrate on quantifiable, numerical correlations, while qualitative methods emphasize concepts, opinions, characteristics, and descriptions. Quantitative approach is appropriate when conducting a statistical analysis of the data or assessing objective facts (Neuman, 2003), and in conducting hypothesis testing and concentrating on the research questions (Edmondson & McManus, 2007).

To examine the theory and precisely measure constructs, a quantitative approach was used for this study (Schindler & Cooper, 2006). In order to derive the outcome, it examine attitudes, beliefs, actions, and other specified characteristics in a broader sample group. Additionally, it employs quantitative data to uncover patterns and formulate facts in the research to help to determine relationship and causality among variables.

Quantitative research was favored by the researcher over the qualitative research due to its greater scientific rigor, allows for the collection of large amounts of data, and can be statistically examined. The results can be generalized since it is less biased

and objective. Also, the procedure for the collection of data and analysis takes less time.

3.5 Operational and Conceptual Definitions of Variables

In order to have a comprehensive understanding of the variables employed in this study, it was necessary to examine the conceptual and operational definitions of the variables. The conceptual definition clarifies the concept of the variable being studied, whereas the operational definition explains how these variables are measured.

Variable	Conceptual definition	Operational definition
Channel consistency	"The capability where retailer provide same price, product range, delivery performance and availability in each channel". (Picot-Coupey <i>et al.</i> , 2016)	A 5-point Likert scale with four statements was used to test this variable.
Cross channel	"The capability of enabling consumers to make use of more than one channel within the same transactions". (Cao & Li, 2015)	A 5-point Likert scale with two statements was used to test this variable.

Social Media	"Connection between brands and consumers, while offering a personal channel and currency for user centered networking and social interaction". (Chi, 2011)	A 5-point Likert scale with two statements was used to test this variable.
Flexibility	"The capability of managing, resolving and adapting to unexpected, new or changing requirements." (Skipper & Hanna, 2009)	A 5-point Likert scale with four statements was used to test this variable.
Operational logistics service quality	"The ability to perform the promised service dependably and accurately". (Bouzaabia <i>et al.</i> , 2013)	A 5-point Likert scale with nine statements was used to test this variable.
Customer satisfaction	"Customer satisfaction is the result of a customer's perception of the value received in a transaction or relationship – where value equals perceived service quality relative to price and customer	A 5-point Likert scale with five statements was used to test this variable.

	acquisition costs". (Jahanshahi et al., 2011)	
--	--	--

Table 3.1: Operational and Conceptual Definitions of Variables

3.6 Research population

A large group of people or items that are the subject of scientific query is referred to as research population. An individual, a team, a company, a nation, a thing, or any other kind of entity on which a researcher will conduct research on and generate findings that can be used as the unit of analysis. According to Sekaran (2010), A population is a collection of people or items that the researcher is interested in studying. Because the researchers cannot examine every person in a population, a sample is selected. Since it is a portion of the population, it must reflect the population it is derived from.

The target population of this research was consumers who have purchased at both physical and online store because they are able to assess the omni-channel capability of the retailer and thus provides appropriate responses on the retail experience. Furthermore, to boost the accuracy of the measurements, the respondents of the research study were asked to choose a particular retailer where they often go for shopping so as to help prevent insufficient evaluation which can be as a result of having inadequate experience with the retailer.

3.7 Research Data

Any information that is gathered, examined, or produced to confirm the original study findings is referred to as research data. The data can be obtained in two ways. Primary data is the first-hand data a researcher collects for his own investigation.

(Welman, Kruger, & Mitchell, 2007). The data is thought to be pure because no statistical procedure have been performed, it remains in its original form. In contrast, secondary data that has previously been collected and statistically analyzed by someone besides the researcher. According to Ajayi (2017), it is conveniently available in books, journals, publications, websites, etc., and could be useful to the researcher. The section that follows outlines how the data for this study was gathered.

3.7.1 Secondary Data

The researcher was able to view the whole research topic thoroughly because of the application of secondary data i.e. omni channel capability along with important variables. The researcher used variety of platforms like journal articles, web sources, blogs, etc. as a secondary source for this research. The data from secondary source helped researcher to understand the importance of omni channel retailing, development of conceptual framework, deciding independent variables i.e., omni channel practices and measures to be used to collect primary data.

3.7.2 Primary Data

To accomplish the goal of this research, primary data were gathered utilizing a quantitative approach. The study's aim is to analyze the impact of omni channel capability on customer satisfaction through mediating role of flexibility and logistics service quality in Bahrain. Data was gathered from customers by employing a questionnaire which included Likert scale statements related to omni channel practices which assisted in gathering first-hand knowledge that couldn't be acquired from secondary sources.

3.8 Research Sample

It is not always possible for the researcher to examine and observe the entire population, and as a result, the researcher draws a sample (Glass & Hopkins, 1984). A sample is a subset or a relatively small part of the population that is selected for study (Bryman & Emma, 2003). The researcher's confidence in the quality of the study's findings increases with the representativeness of the sample.

There are two categories of sampling techniques: probability sampling and non-probability sampling. If probability sampling is used, it is possible for anyone in the population to be chosen for the sample. The non-probability sampling approach, on the other hand, is the opposite as it does not give equal opportunity for selection of each person in the population since the selection criteria are not random. Non-probability sampling is a more appropriate and practical strategy to assist researchers carrying out surveys in the real world.

Although the sample is not chosen at random and has preferences, this does not necessarily mean that it is not representative. Non-probability sampling produces results more quickly and efficiently in terms of cost as compared to probability sampling due to the fact that the researcher is already familiar with the sample. Identifying every consumer in this group was not possible before data collection, it prevented random sampling. End users were requested to answer the questionnaire with the consideration of any specific retailer they have previously made a purchase from including both the retailer's online and physical store.

This study used non-probability sampling technique to select the sample for the quantitative approach in this research. Convenience and snowball sampling strategy was utilized to collect data. Convenience sampling refers to a technique used by researchers to collect data from a readily available group of responders. It is simple,

quick, and efficient method that provides rich data. While snowball sampling is a technique wherein current participants suggest potential recruits to gather the sample needed for a study.

3.8.1 Research Sample Size

One of the most crucial factor while collecting the sample is the sample size. Inaccurate results might be produced from either a too-large or too-small sample size, which would waste time, resources, money, and cause sample-error. Consequently, the sample size must be appropriate. According to (Kothari, 2004) "An ideal sample is the one that is efficient, representative, reliable and flexible". For the majority of the studies, a sample size greater than 30 and fewer than 500 is suitable (Roscoe, 1975). The majority of statisticians concur that a sample size of 100 is necessary to produce any significant results. As stated above, this research included convenience and snowball sampling technique which are quick, easy, and efficient ways to collect data. Also, the target participants were those who have purchased at both physical and online store which increase sample reliability. A sample of 300 consumers was intended for this study to yield statistically representative results with the possibility of increase or decrease in the sample size to meet unforeseen circumstances.

3.9 Instrumentation

As previously stated, this study employed a quantitative technique, hence a questionnaire was the primary tool utilized to gather data from the chosen sample, since it ensures reliability, relevance to the study topic, and also offers insights that are otherwise inaccessible. (O'Leary, 2017). This section addresses how the study's questionnaire was created, validated, and put through a pilot test before being finalized.

3.9.1 Development of Questionnaire

A questionnaire is a kind of research instrument that consists of a set of standardized questions designed to gather specific data on one or more predetermined subjects from individuals (Lavrakas, 2008). It's ideal for gathering data in a short period of time from a high number of responders. Depending on the study's goal, questions in the questionnaire might be closed, open or a combination of both.

Designing a questionnaire is a multi-step process that requires careful attention. This approach began with a review of the literature to collect information required to develop questionnaire content required for this study. The researcher avoided using unclear or biased wordings and ensured that the questions were clear, specific, brief, and easy to understand.

A self-administered questionnaire was created to assess the hypothesis and to measure how closely the variables related to omni channel capability. The questionnaire was created using easy to read and neutral language, making it simple to read and answer. Most of the questions were derived from prior research and literature with slight modifications where necessary.

The questionnaire began with a short description explaining the purpose of the study, as well as confidentiality of the collected data, followed by a demographic question. 5-point Likert scale was used to measure the variables where 1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree, 5 = strongly agree. The survey was composed of 26 Likert-style questions. The thesis supervisor approved the questionnaire once it was seen to be straightforward and well-structured data collecting tool that would provide data of adequate standard. The questionnaire was distributed as planned after converting it from Microsoft Word to Google Forms in order to collect data. After

that, the questionnaire underwent a pilot test to improve it before being used to collect the required data.

3.9.2 Questionnaire Source

To create the questionnaire, the researcher mostly relied on existing secondary sources. There were a few readymade questions that suited the concept of this study, but the majority were taken from various sources and then modified according to the study.

1. Hüseyinoğlu et al., (2018).
2. Cannon & Homburg (2001).
3. Noordewier et al., (1990).
4. Bouzaabia et al., (2013).
5. Klaus & Maklan (2013).
6. Dagger et al., (2007).

3.9.3 Questionnaire Structure

There were two sections to this questionnaire. The instructions for completing the questionnaire were presented clearly beginning with a paragraph that stated the study's goal and provided assurance of anonymity. The following items are included in each part of the questionnaire:

Part A: Comprised demographic questions including gender, age, marital status, education, employment status, online shopping experience, and the number of online purchases within last 6 months.

Part B: Before answering the statements related to variables, the respondents were asked to consider particular retailer that you have shopped frequently from both of its online and physical store than they were asked to choose which of the particular

retail industry does the considered retailer belongs to. The options were consumer electronics industry, fashion and apparel industry, food industry, and homeware industry. The study's variables are represented using a five-point Likert scale. (1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree, 5 = strongly agree)

1. Channel consistency: Four statements were used to measure this variable.
2. Cross channel: Two statements were used to measure this variable.
3. Social Media: Two statements were used to measure this variable.
4. Flexibility: Four statements were used to measure this variable.
5. Operational logistics service quality: Nine statements were used to measure this variable.
6. Customer satisfaction: Five statements were used to measure this variable.

3.9.4 Questionnaire Piloting

Pilot testing was the final step in improving the questionnaire's quality. It involved getting a limited amount of data from a small number of people to see if the questions were clear and understood (Saunders, Lewis, & Thornhill, 2009). It was helpful in identifying any deficiencies so that they can be rectified before the main study. The pilot test was done using Google Form with subjects selected from the target population. A sample of 10 respondents was randomly selected. After the completion of the questions, the researcher requested to point out any ambiguous questions. The findings indicated that there were no issues with the questionnaire's instructions and statements, and the amount of time needed to finish the survey was also appropriate. The feedback obtained did not propose any adjustment, so the researcher proceeded with data collection.

3.9.5 Distribution of the Questionnaire

As mentioned earlier, Google forms were used to administer the questionnaire online. The URL was then shared through WhatsApp, Instagram, and Facebook. First, the link was shared with friends and work colleagues. After that link was posted on public groups in Facebook. While on Instagram, all the followers were contacted through direct message.

3.10 Data Analysis Techniques

Cleaning, transforming, and modeling data is the process of conducting data analysis in order to derive relevant information (Khan, 2019). The responses which were collected were exported to MS excel, where they were modified, coded, and transferred to SmartPLS for further analysis. The data collected from the respondents examined using the structural equation modeling (SEM) approach. It consists of measurement model and structural model. The measurement model of the study has been evaluated briefly which analyzed the relationship between latent variable and observed variable. It deals with the validity and reliability of data. In SmartPLS, Cronbach alpha, composite reliability, and factor loading is used to assess the reliability of measurement model. To measure validity, there are two types which include convergent validity and discriminant validity. Average Variance Extracted (AVE) was used to measure convergent validity while Fornell-Larcker and HTMT criterion were employed to establish discriminant validity.

After assessing the measurement model and receiving favorable results, the next step is to analyze the structural model. It is used to analyze the association between latent variables. The procedure used to assess structural model was bootstrapping. In structural model assessment, the hypothesis proposed in the study listed above is

tested briefly and each relationship's strength and relevance proposed in the study has been discussed.

3.11 Scale Reliability and Validity

In quantitative research, reliability and validity must be considered while planning study design, selecting research methodologies, and interpreting results (Middleton, 2019). They both produce data that is error-free, useful, and consistent. They are both utilized to assess the quality of the research. The study's sample must be reliable and valid.

Research reliability measures the consistency and stability of the results produced by the applied research method. The responses collected are considered reliable when they exhibit consistency, stability, and produce similar outcome when the test is conducted multiple times. This indicates that the measurements and techniques employed were accurate. i.e., Cronbach's Alpha, composite reliability, and factor loading was applied in this research to assess reliability. It examined the instrument's internal consistency. The findings will be covered in the following chapter. In addition to being reliable, measures must also be valid. It is about how effectively an instrument measures what it is designed to measure.

The researcher created the questionnaire and submitted it to the supervisor to analyze the content and provide feedback to ensure validity. No adjustment was made in the questionnaire and the researcher proceeded with data collection. Additionally, it was ensured that the survey's questions were founded on established and reliable results from earlier researches. Each statement was made mandatory to make sure each question is answered. A pilot test was undertaken by the researcher before the distribution to further establish the instrument's validity.

3.12 Ethical Considerations

Ethical considerations were observed during the course of this research. The purpose of this research was well explained to respondents. The researcher explicitly stated in the questionnaire that at no point respondents were ever forced into participating in the study, and the data they provided will be kept confidential. The contributions of other authors were also recognized in this study through correct referencing.

3.13 Summary

This chapter discussed the research technique that was utilized to collect and examine the data necessary to provide a response to the research hypothesis and assess the correlations between the variables. It included an in-depth description of the sample, population, and justification, as well as the discussion of the methods applied in the study. Additionally, the chapter included comprehensive details about collecting and analyzing data. Finally, the ethical considerations were also covered.

Chapter 4: Results and Discussion

4.1 Questionnaire findings

The results of the data collected from the survey are included in this section. SmartPLS was used to generate, export, and analyze the results. Additionally, it included data input, data coding, testing of scale reliability, and statistical analysis.

4.2 Data Editing and Coding

To process and conduct an analysis on the data collected from the self-administered questionnaire, it required coding because it was raw in nature. Therefore, to enter the data in SmartPLS, each response from the questionnaire must be assigned a number from the researcher. The following are the numerical codes that were assigned to each response of 5-point Likert scale statement.

Scale	Score
Strongly Disagree	1
Disagree	2
Neutral	3
Agree Strongly	4
Strongly Agree	5

Table 4.1: Likert Scale

4.3 Data Entry

In MS Excel, a file was made, and each response was assigned a number on a separate line. Then, their response was entered based on their pre-coded value. Finally, the data file was exported to SmartPLS to conduct statistical analysis.

4.3.1 Scale Items

Channel consistency	
CC1	I can buy products from retailer's online stores that are available at their physical stores.
CC2	I can easily complete my shopping regardless of which marketing channel of the retailer I use.
CC3	All the sales outlets of the retailer (physical and online stores) operate at the same level of efficiency.
CC4	I can pick up the products purchased online from the retailer's physical stores.
Cross Channel	
CRC1	My online purchases can be delivered the same day to the retailer's physical store for collection.
CRC2	The product I ordered from online store can be purchased from retailer's physical store.
Social Media	
SM1	The retailer successfully uses social media to promote its products in all marketing channels.

SM2	The retailer successfully uses social media to promote its products in all marketing channels.
Flexibility	
FLEX1	During my shopping, the retailer is flexible enough to deal with unexpected problem.
FLEX2	During my shopping, changes are well managed by the retailer
FLEX3	The retailer can easily adjust products to meet my changing needs.
FLEX4	The retailer is flexible in response to my requests.
Operational LSQ	
OPLSQ1	Information about the product features is adequate.
OPLSQ2	Purchased products performs effectively.
OPLSQ3	purchased products are always delivered correctly.
OPLSQ4	Product delivered from the retailer is not damaged.
OPLSQ5	The available information about the products is completely correct.
OPLSQ6	Time duration between placing an order and receiving delivery is short.
OPLSQ7	Correction of discrepancy in delivered quality is adequate.
OPLSQ8	There are no issues when returning non-conforming products.
OPLSQ9	Deliveries are made on the scheduled date.
Customer Satisfaction	
CS1	My feelings are positive for the retailer.

CS2	I am confident in selecting this retailer for the products I am searching for.
CS3	Overall, I am pleased with the service provided by this retailer.
CS4	I am satisfied that this retailer delivers the best possible results for me.
CS5	The level to which this retailer has delivered me the best possible results is satisfying.

Table 4.2: Scale Items

4.4 Normality and Multi-Collinearity Test

The skewness and kurtosis of the constructs were checked which fell in threshold criteria $-/+2$, which indicates that the data of this study were normally distributed (Gravetter and Wallnau, 2016). For analyzing the risk of multi-collinearity issues among the predictors constructs, the Variance Inflation Factors (VIF) test was performed, which showed that value of all predictors constructs was less than 3, which indicates no problem of multi-collinearity (O’breian, 2007).

4.5 Reliability and Convergent Validity

Constructs	Items	Loading	Cronbach's Alpha	rho_A	CR	AVE
Channel Consistency			0.815	0.816	0.878	0.643
	CC1	0.812				
	CC2	0.806				
	CC3	0.791				
	CC4	0.798				
Cross channel			0.798	0.798	0.908	0.832
	CRC1	0.913				
	CRC2	0.912				
Social Media			0.842	0.846	0.926	0.863
	SM1	0.935				

	SM2	0.912				
			0.901	0.901	0.931	0.770
Flexibility	FLEX1	0.886				
	FLEX2	0.873				
	FLEX3	0.887				
	FLEX4	0.865				
			0.919	0.920	0.933	0.607
Operational LSQ	OPLSQ1	0.781				
	OPLSQ2	0.780				
	OPLSQ3	0.806				
	OPLSQ4	0.817				
	OPLSQ5	0.806				
	OPLSQ6	0.792				
	OPLSQ7	0.801				
	OPLSQ8	0.758				
	OPLSQ9	0.659				
			0.910	0.911	0.933	0.735
Customer Satisfaction	CS1	0.856				
	CS2	0.839				
	CS3	0.852				
	CS4	0.868				
	CS5	0.870				

Table 4.3: Reliability and Convergent Validity

In this study, factor analysis was carried out using confirmatory factor analysis (CFA). The measurement model is to analyze how variables are related to one another. It deals with the validity and reliability of data. In SMARTPLS, Cronbach Alpha, Composite reliability, and factor loading are used to assess the reliability of measurement model. While average variance extracted, Fornell Larcker criterion and HTMT criterion are used to assess the validity of a research model. In the first step of measurement model (Table 4.3) demonstrate that each measurement item load significantly on their construct. Internal consistency reliability has been evaluated by using the values of Cronbach's Alpha and composite reliability. It defines the value of closeness of items as a group used to study a latent variable. The

standard criteria set by the statistician is that its value must be more than 0.7. The higher value does not represent the multi-collinearity. In the above table, the values of Cronbach's Alpha and composite reliability (CR) for each latent variable are used in this study are more than 0.7, which indicates that internal consistency reliability has been established. Outer loading is the criteria to measure indicator reliability. The acceptable value of outer loading must be above 0.5. The outer loading value of more than 0.7 is considered as highly reliable and satisfactory. In the above table, the value of outer loading for each indicator except one (OPLSQ9) is above 0.7 which means that each indicator used to measure a latent variable is highly reliable and satisfactory.

Average variance extracted is used to measure convergent validity of each constructs/variables used in a research model. Convergent validity is defined as a validity in which a variable should need to be theoretically related are actually related. The criteria defined by the statisticians for AVE is that its value must be more than 0.5. In table above, each value of AVE for each variable is above than predefined standard.

4.6 Discriminant Validity (Fornell-Larcker Criterion)

Construct	CC	CRC	CS	FLEX	OPLSQ	SM
CC	0.802					
CRC	0.482	0.912				
CS	0.197	0.477	0.857			
FLEX	0.419	0.424	0.450	0.878		
OPLSQ	0.274	0.543	0.698	0.514	0.779	
SM	0.577	0.421	0.211	0.404	0.329	0.929

Table 4.4: Discriminant Validity (Fornell-Larcker Criterion)

In the next step of measurement analysis, discriminant validity were assessed. Discriminant validity refers that each construct should be distinct and unique from

other constructs in the same model. Fornell and Larcker criteria (1981) most commonly used to assess discriminant validity of each construct in a research model. Discriminant validity is defined as a validity deals with the variables should need to be differed theoretically are actually differed. The Fornell-Larcker criteria states that the diagonal value of a construct (Square root of AVE) must need to be greater than values in a row or column of a variable. The results show that the value of AVE's square root for each variable is higher than their correlation with other variables. Consequently, discriminant validity has been established.

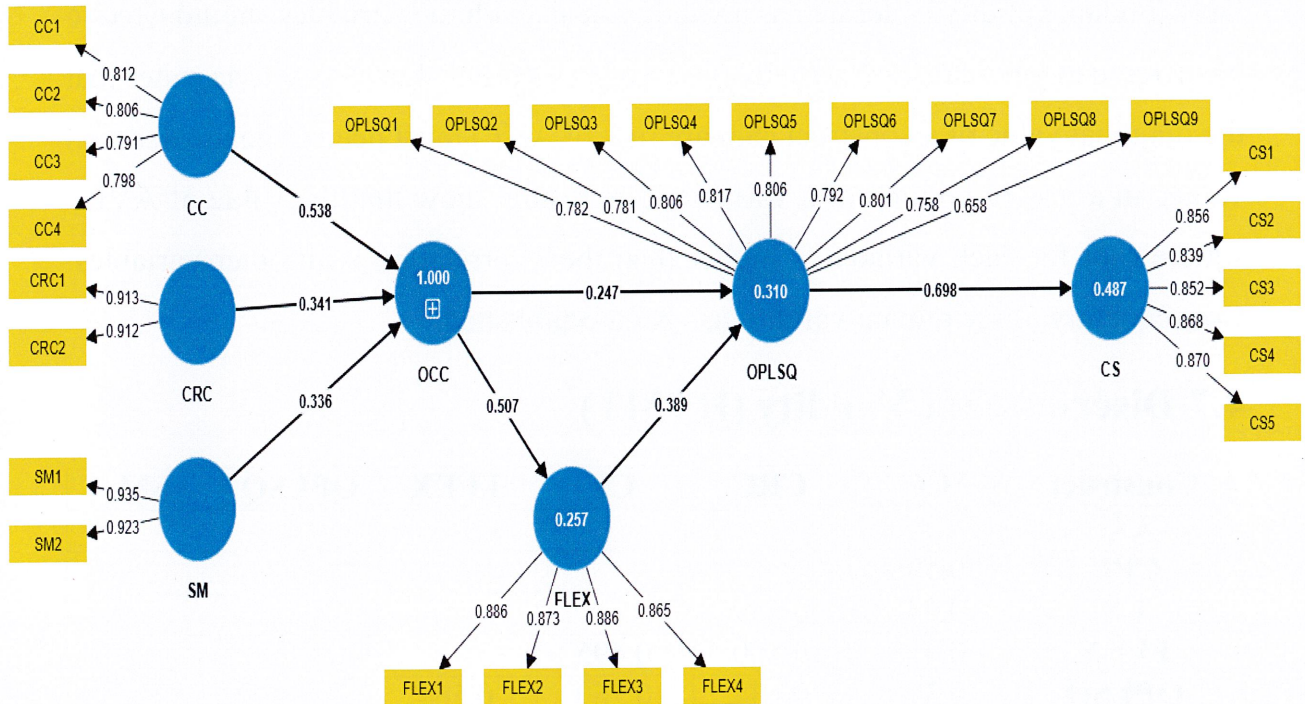
4.7 Discriminant Validity (HTMT)

Construct	CC	CRC	CS	FLEX	OPLSQ	SM
CC						
CRC	0.596					
CS	0.226	0.559				
FLEX	0.485	0.500	0.495			
OPLSQ	0.315	0.634	0.760	0.564		
SM	0.693	0.514	0.241	0.463	0.380	

Table 4.5: Discriminant Validity (HTMT)

An alternate method for assessing the discriminant validity is Heterotrait-Monotrait correlation ratio. HTMT is a modern criterion for evaluating discriminant validity. It is advised to choose a lower, more conservative threshold value, such as 0.85, when constructs are conceptually more distinctive. (Henseler et al., 2015). In the above table, the values of HTMT ratio are below 0.9, hence, it is easy to conclude with this evidence that discriminant validity has been established.

Figure 4.1: Measurement Model



4.8 Research Hypothesis

H1: Omni-channel capability is positively related to flexibility.

H2: The relationship between omni-channel capability and customer satisfaction is mediated by flexibility.

H3: Omni-channel capability is positively related to operational LSQ.

H4: Operational LSQ is positively related to customer satisfaction.

H5: The relationship between Omni-channel capability and customer satisfaction is mediated by Operational LSQ.

H6: Flexibility is positively related to Operational LSQ.

H7: Omni-channel capability is positively related to customer satisfaction through double mediation of flexibility and operational LSQ.

As the measurement model assessment got significant and satisfactory results. This study investigate structural model by analyzing Coefficient of determination (R^2), and testing of hypotheses (Sarstedt et al., 2015). Coefficient of determination (R^2) of Flexibility is 0.257 which reflects that 25.7% variance in flexibility accounted for because of omni channel capability. Coefficient of determination (R^2) of operational LSQ is 0.310 which reflects that 31% variance in OPLSQ accounted for because of the omni channel capability and flexibility. The coefficient of determination (R^2) of CS is 0.487, reflecting that 48.7% variance in CS accounted for because of the operational logistics service quality. The bootstrapping technique of 5000 sample technique was applied for assessment of path coefficient and relationship of hypotheses.

Table 4.6: Hypothesis Testing Results of Direct Effect

Hypothesis	Path	β	SD	T value	p-value	Result
H1	OCC $\rightarrow$ FLEX	0.516	0.060	8.531	0.000	Supported
H3	OCC $\rightarrow$ OPLSQ	0.281	0.063	4.494	0.000	Supported
H4	OPLSQ $\rightarrow$ CS	0.698	0.045	5.473	0.000	Supported
H6	FLEX $\rightarrow$ OPLSQ	0.369	0.078	4.710	0.000	Supported

To assess the structural model, direct effects/paths have been tested. The direct relationship of this study is presented in table 4.6. The results show that omni

channel capability has significant positive relationship with flexibility ($B=0.516$, $t=8.531$, $p=0.000$) as p value is less than 0.05 so the result of H1 accepted. The results show that omnichannel capability has a significant and positive impact on OPLSQ ($B=0.281$, $t=4.494$, $p=0.000$) so H3 is also accepted. H4 proposes that OPLSQ has a positive and significant impact on customer satisfaction. The results show that OPLSQ positively and significantly impact CS ($B=0.698$, $t=5.473$, $p=0.000$) so result of H4 is accepted. H6 proposes that flexibility has a significant and positive impact on OPLSQ. The results show that flexibility has a significant and positive impact on OPLSQ ($B=0.369$, $t=4.710$, $p=0.000$).

Table 4.7: Hypothesis Testing Results of Indirect Effects

Hypothesis		β	SD	T-Value	P-Value	Results
H2: OCC → FLEX → CS						
Total Effect	OCC -> CS	0.329	0.049	6.739	0.000	Supported
Direct Effect	OCC -> CS	0.369	0.078	4.710	0.000	Supported
Indirect effect	OCC -> FLEX -> CS	0.190	0.045	4.192	0.000	Supported
H5: OCC → OPLSQ → CS						
Total Effect	OCC -> CS	0.329	0.049	6.739	0.000	Supported
Direct Effect	OCC -> CS	0.369	0.078	4.710	0.000	Supported
Indirect effect	OCC -> OPLSQ -> CS	0.196	0.045	4.332	0.000	Supported
H7: OCC → FLEX → OPLSQ → CS						
Total Effect	OCC -> CS	0.329	0.049	6.739	0.000	Supported
Direct Effect	OCC -> CS	0.369	0.078	4.710	0.000	Supported
Indirect effect	OCC -> FLEX -> OPLSQ -> CS	0.133	0.035	3.763	0.000	Supported

To analyze the mediation between the constructs, bootstrapping bias-corrected percentile method has been used. The results show the total effects, direct effects, and indirect effects. Table 4.7 reflects the mediation analysis results of this study. H2 supports the indirect effects relationship between omni channel capability and customer satisfaction through flexibility because direct effects and indirect effects are both significant which shows that the flexibility partially mediates the

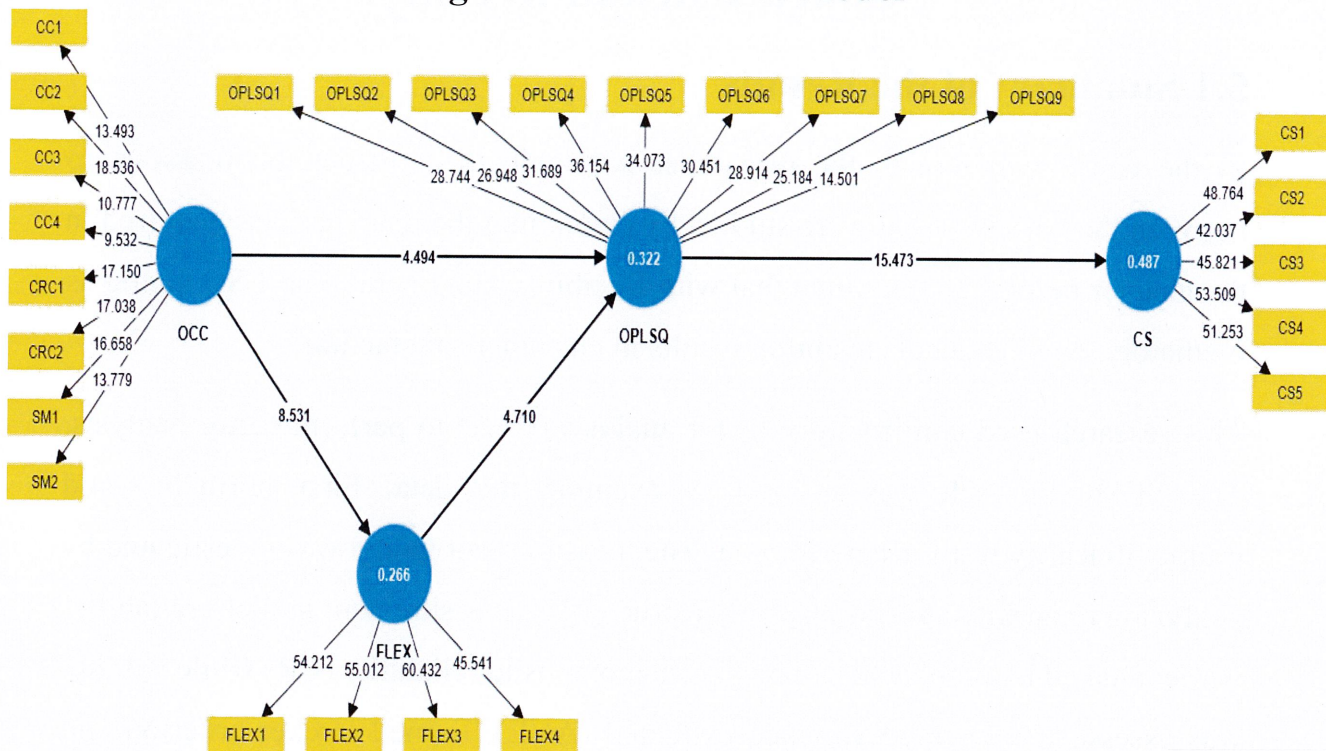
relationship between omni channel capability and customer satisfaction. Similarly, results also confirm H5 that the OPLSQ partially mediates the relationship between omni channel capability and customer satisfaction. Likewise, the results also supported H7 which is flexibility and operational LSQ operate as dual mediators to link omni-channel capability to customer satisfaction.

The results of hypothesis testing of indirect effects show that when there is no mediation between omni channel capability and customer satisfaction (total effect), the value of β is 0.329. Direct effect shows whether the relationship between omni channel capability and customer satisfaction is still significant in presence of mediators, and results confirm that with the mediation of flexibility and operational logistics service quality the effect increased from $\beta=0.329$ (Total Effect) to $\beta=0.369$ (Direct Effect). The indirect effect shows whether the relationship between omni channel capability and customer satisfaction passes through any mediation. And the results confirm that flexibility partially mediates the relationship between omni channel capability and customer satisfaction ($\beta=0.190$, $t=4.192$, $p=0.000$), operational logistics service quality partially mediates the relationship between omni channel capability and customer satisfaction ($\beta=0.196$, $t=4.332$, $p=0.000$), and both flexibility and operational logistics service quality mediates the relationship between omni channel capability and customer satisfaction through double mediation ($\beta=0.133$, $t=3.763$, $p=0.000$).

Further analysis was conducted to see whether a retail industry influence would alter the results of this study. For this aim, due to the smaller sample size following sample splitting, bootstrapping was employed to assess both direct and indirect effects. According to the sample, the majority of respondents' responses were related to fashion retailers (54.5%), followed by electronics (16.3%), food (17.1%) and homeware retailers (12.1%). For the fashion industry, all hypotheses testing results

reported earlier were confirmed. For electronic industry, it was found that flexibility is not positively related to operational LSQ and also flexibility and operational logistics service quality does not mediate the relationship between omni channel capability and customer satisfaction, so H6 ($\beta = -0.013$, $t = 0.079$, $p = 0.937$) and H7 ($\beta = -0.005$, $t = 0.067$, $p = 0.946$) were rejected respectively. When it comes to food industry, the results showed that omni channel capability is positively related to flexibility H1 ($\beta = 0.725$, $t = 5.733$, $p = 0.000$) and also operational logistics service quality is positively related to customer satisfaction H4 ($\beta = 0.691$, $t = 7.034$, $p = 0.000$), while the rest of the hypothesis were rejected due to insignificant results. For homeware industry, the results showed that omni-channel capability is not positively related to operational logistic service quality H3 ($\beta = 0.275$, $t = 1.629$, $p = 0.103$) and also the relationship between omni-channel capability and customer satisfaction is not mediated by operational logistic service quality H5 ($\beta = 0.199$, $t = 1.686$, $p = 0.092$), while the remaining hypothesis were confirmed and accepted.

Figure 4.2: Structural Model



4.9 Summary

In this chapter, the researcher presented the data collected from the questionnaire of this research, data analysis using statistics and discussion on the findings of the research. Results are used to assess the impact of omni channel capability on customer satisfaction through mediating role of flexibility and operational logistics service quality. Cronbach Alpha, composite reliability, and factor loading are used to assess the reliability of measurement model. While average variance extracted (AVE), Fornell Larcker criterion and HTMT criterion are used to assess the validity of a measurement model. The structural model was analyzed using bootstrapping technique to test hypothesis.

Chapter 5: Conclusion and Recommendations

5.1 Summary of the Results

In the conceptual model, the researcher was able to construct the relationship between the variables that were studied by examining the data that was acquired in the chapter before. It was found that with flexibility and operational LSQ acting as mediators, omni channel capability results in customer satisfaction.

This research used confirmatory factor analysis (CFA) to perform factor analysis. The SEM approach was utilized to examine the data. First normality and multicollinearity test were performed. The measurement model was investigated by analyzing reliability and validity of constructs. The measurement model's reliability was evaluated by cronbach's alpha (α) and composite reliability (CR) while validity was assessed by average variance extracted (AVE), Fornell larcker criterion and Heterotrait-Monotrait (HTMT) criterion.

In this research, all the latent variables values of Cronbach's alpha and composite reliability are both greater than 0.7, suggesting that internal consistency reliability has been established. To assess the convergent validity of the constructs, average variance extracted was utilized. All the values of AVE for each variable were above 0.5. In the next step, discriminant validity was evaluated using Forenll and larcker criteria (square root of AVE). The findings demonstrated that the value of AVE's square root for each variable is higher than its association with other variables. This has led to the establishment of discriminant validity. Another method which was used to assess discriminant validity was Heterotrait-Monotrait ratio. All the values of HTMT were lower than 0.9, hence discriminant validity was established.

After receiving significant and satisfactory results of measurement model, this study investigates structural model by analyzing Coefficient of determination (R^2), and

testing of hypotheses (Schober, Boer & Schwarte, 2018). Coefficient of determination (R^2) of Flexibility is 0.257 which reflects that 25.7% variance in flexibility accounted for because of omni channel capability. Coefficient of determination (R^2) of operational OPLSQ is 0.310 which reflects that 31% variance in OPLSQ accounted for because of the OCC and flexibility. The coefficient of determination (R^2) of CS is 0.487, reflecting that 48.7% variance in CS accounted for because of the OPLSQ. The bootstrapping of 5000 sample technique was applied for assessment of path coefficient and relationship of hypotheses.

First, direct effects/paths were tested. The results indicated that OCC had a significant positive relationship with flexibility ($B=0.516$, $t=8.531$, $p=0.000$), therefore H1 was accepted. The results also showed that OCC has significant positive impact on operational LSQ ($B=0.281$, $t=4.494$, $p=0.000$), so H3 was accepted. According to H4, OPLSQ has a substantial effect on customer satisfaction. The results showed that OPLSQ has a positive and significant impact on customer satisfaction, ($B=0.698$, $t=5.473$, $p=0.000$) hence H4 was accepted. For H6, the results showed that flexibility has significant positive impact on OPLSQ ($B=0.369$, $t=4.710$, $p=0.000$), therefore H6 was accepted.

In order to perform mediation analysis, bootstrapping technique was used. H2 stated that the relationship between OCC and customer happiness is mediated by flexibility. There were significant direct and indirect impacts, confirming that flexibility partially mediates the relationship between OCC and customer satisfaction. Similarly, the results support H5, which stated that operational LSQ partially mediates the relationship between OCC and customer satisfaction. The results also showed that OCC influences customer satisfaction through operational LSQ and flexibility, hence H7 was accepted. Retail industry effect was applied to see any changes in the results and the findings showed that fashion and apparel retail

industry confirmed all the hypothesis tested earlier, while testing consumer electronics industry effect, H6 and H7 were rejected. When Food industry retailers were tested, H1 and H4 were accepted, and all the other hypotheses were rejected. Also, when only retailers of homeware industry included in the analysis, all the hypothesis were accepted except H3 and H5.

The research studies came up with findings that supported the hypotheses developed for this research study. In this research study it is established that omni channel retailing can have a positive impact on the satisfaction of the needs of the customers. The OC strategy normally has an indirect influence on the degree of customer satisfaction. The research reveals that the two main mediating variables between the OC retail capabilities and CS include the operational logistic service quality and the flexibility. It is through these two mediating factors that OC retailing leads to the better satisfaction of the customers' needs in the retail industry.

5.2 Conclusion

This study's primary goal was to investigate how omnichannel retailing affects customer satisfaction by investigating the mediating roles of flexibility and operational logistics service quality. Our knowledge of the factors that influence omni-channel retailing's effectiveness as a channel strategy has improved as a result of the increased amount of study in this area. In this context, both the elements of OCC and the function of logistics in omni-channel retailing are relevant. (Sorkun, Huseyinoglu & boruhan, 2019; Murfield et al., 2020). However, little study has been done on this subject to determine how and when OCC achieved its desired results which is high operational LSQ and customer satisfaction. Therefore, it is necessary to realize the situation that when and how OCC leads to customer satisfaction.

This paper addresses the challenges as mentioned earlier, using the C-SQ-P framework as a theoretical lens (Roth & Jackson, 1995). As a result, it first investigated if the OCC, in conjunction with flexibility, leads to a greater level of operational LSQ and, as a result, customer satisfaction, which is recognized as an important marketing performance measure (Morgan et al., 2002). The findings confirmed that it is impossible to attain the desired level of customer satisfaction without capabilities (i.e. OCC and flexibility) which offer high level of service quality (i.e. operational LSQ). Not only these results confirm the C-SQ-P model's principles in the omnichannel setting, but also illustrate theoretically the return on investment in organizational resources and logistical resources used to build OCC in terms of a greater degree of customer satisfaction.

The results previously presented, however, indicated some differences when the impact of the retail industry was controlled. The results showed that omni channel capability ceased to have an impact on operational LSQ, as well as operational LSQ does not mediate the relationship between omni channel capability and customer satisfaction. These results suggest that, in some retail industries, developing OCC may not always improve operational LSQ and consumer satisfaction. However, only in fashion retail industry, operational LSQ and consumer satisfaction can be significantly explained by OCC and flexibility. The contingency approach was applied for the interpretation of results which investigates the conditions when capabilities are required (Pertusa-ortega et al., 2010). There are number of contingencies factor such as products attributes and industry effect play a key role in assessing the need for flexibility and OCC in order to attain greater level of service quality and performance. For instance, the characteristics of fashion items could be harder to see online. Most consumers prefer to visit the showroom physically where they can see/touch/try products before purchasing online (Verhoef et al., 2015).

Furthermore, there is more ambiguity regarding whether fashion items will fit well or suit customer demands after being purchased (Birtwistle et al., 2005). Nevertheless, in electronic products, consumers set their need clearly and see whether the technical features of products meet their needs (Riquelme, 2001). The convenience of returning items via any channel may thus be more significant for customers given that the fashion industry has a higher tendency for returns (Bernon et al., 2016). The findings reveal that in fashion products, by their very nature, require a greater level of omnichannel capability and flexibility in order to deliver better service quality and customer satisfaction. Another significant finding which is aligned with the contingency approach is that flexibility has a stronger direct effect on customer satisfaction in all retailing industries which are analyzed except the food industry. So, from the findings, we assume even for fashion products that customers place increased emphasis on a retailer's capacity to satisfy shifting order fulfillment requirements, and that kind of flexibility might result in satisfied customers, while the level of operational LSQ is not what was anticipated.

5.3 Managerial Implications

The findings of the research study can be used in various areas within the retail sector to improve efficiency. The notable area that the findings of this research study can be applied is the management of retail stores in the global business environment. As the level of competition increases in the retail sector, it is important for the players in this sector to develop appropriate means and approaches to improve the management of the retail store so as to satisfy the ever-changing needs of the customers. The result of this research study provides important practical insights that can guide the managers of different retail shops to adopt omni-channel retail approach. According to this research study's findings, omni channel capability can lead to enhanced customer satisfaction not in a direct manner but through the

operational logistic service quality and flexibility. As a result, the design of omni channel strategies aimed at accomplishing channel consistency, social media integration and cross channel integration should consider whether the mentioned resources support the flexibility and the operational logistic service quality. For instance, the click and collect products is a type of omni channel practice that can only lead to the improved operational logistic service quality and customer satisfaction when a product or service can be found with the desired location and at an acceptable timeframe after ordering and purchasing via an online platform. Also, through the omni channel retail strategy, it is possible for the customers to return online-purchased goods to the physical stores. However, if the physical store is not accessible to the retail customer, it can be argued that such practices do not lead to the improved customer satisfaction. For flexibility, for example, customers can make a variety of requests when they shop in a physical store, allowing them greater flexibility, involving the customization of the delivery process and product features. However, if due to the restricted face-to-face interaction this approach is not achievable through an online shopping channel, it can be argued that the retailers are not able to fulfill orders on each of the retail channels with flexibility and this hinders customer satisfaction.

After the control of the retail store industry effect, the results from the testing of hypothesis have revealed inconsistency which plays an important role in providing the managers with potentially important management insight to ensure that they enhance customer satisfaction and achieve a competitive advantage in the business world. The result also provides the managers with important insight regarding the types of the industries which can allow the retailers to strive and develop omni channel capability. In essence, the retail segments where omni channel capabilities have high potential effect on customer satisfaction and operational logistic service

quality are considered appropriate for the companies interested in gaining a competitive edge in the marketing environment. To demonstrate this, while buying fashion products, according to the research study's findings, omni channel retail practices and strategies are well regarded by consumers in the retail sector particularly when they are carried out in a flexible and logistically sound manner. However, considering other industries that can include food and electronics, it is noted that the omni channel capabilities might not provide results that are as favorable. As a result, the management of the retail stores should emphasize on the extent the consumers value the omni channel approaches in particular industry. In addition, the retail store managers should analyze the significance of pursuing an omnichannel retail strategy and design and build the associated capability for this strategy or whether the resources at hand should be utilized or exploited in other areas of concern.

5.4 Research Limitations

The following were some of the limitations that this study faced which could have impacted on its overall quality:

1. This research study was limited to the retail consumers with previous shopping experience from any particular retail store with both physical and online channels. As a result, there is a chance that they can select their preferred retailer, which could lead to the risk of biased results, particularly for the construct of customer satisfaction.
2. Customers satisfaction is regarded as one performance measurement variable concerning the triadic framework of C-SQ-P.
3. The consumers selected to take part in the study were sampled from a single country and most of the participants were students.

4. The current study provided only quantitative results thus fails to provide the comprehensive insight and thoughts that can be made possible in a qualitative research approach.
5. This research study did not included demographic characteristics in empirical analysis which would have allowed businesses to develop the understanding of each segment.

5.5 Research Recommendations

Based on the results of this research, the following recommendations were developed:

1. The researcher could request the respondents to answer based on the most recent experience. This could result in bias-reliability trade off, though, as the most recent experience (for example, first time encounter with a retailer) would not accurately reflect capabilities, performance, and service quality of the retailer. Therefore, it is urged that future study develop techniques in order to resolve this bias-reliability trade-off.
2. To minimize common method bias risk, future research can incorporate the views of the retailers. This would be helpful in limiting the relevance of consumer judges in evaluating the capabilities of retailers.
3. Future research studies should consider including other important performance measurement variables in the retail market segment. For example, repurchase intention, referrals, and word of mouth.
4. Future research might be carried out in other settings, particularly in developed nations with enhanced experience of omni channel practice.
5. This research can be developed in the future to exploit demographic characteristics to better understand the relationship between omni channel capability and customer satisfaction.

5.6 Summary

In this chapter, the researcher summarized the findings followed by conclusion and managerial implications. Additionally, it discussed the study's limitations and provided recommendations which will benefit the omni-channel retailers in Bahrain.

Reference

Bibliography

- Ahmed, H., & ul Hassan, S. S. (2021). Omnichannel Customer Experience in the context of Omnichannel Shopping Value: The Moderating Role of Omnichannel Intensity (A Focus on Fashion Retail in Pakistan). *KASBIT Business Journal*, 14(1), 84-106.
- Akter, S., Hossain, M. I., Lu, S., Aditya, S., Hossain, T. M. T., & Kattiyapornpong, U. (2019). Does service quality perception in omnichannel retailing matter? A systematic review and agenda for future research. *Exploring omnichannel retailing*, 71-97.
- Alexander, B., & Cano, M. B. (2020). Store of the future: Towards a (re) invention and (re) imagination of physical store space in an omnichannel context. *Journal of Retailing and Consumer Services*, 55, 101913.
- Alexander, B., & Kent, A. (2020). Change in technology-enabled omnichannel customer experiences in-store. *Journal of Retailing and Consumer Services*, 102338.
- Arghode, V. (2012). Qualitative and Quantitative Research: Paradigmatic Differences. *Global Education Journal*, 2012(4).
- Babbie, E. R. (2010). *The practice of social research*. Belmont, CA: Wadsworth.
- Bell, D. R., Gallino, S., & Moreno, A. (2018). Offline showrooms in omnichannel retail: Demand and operational benefits. *Management Science*, 64(4), 1629-1651.
- Bennett, D. R., & El Azhari, J. (2015, September). Omni-channel customer experience: An investigation into the use of digital technology in physical stores and

its impact on the consumer's decision-making process. In *XXIV AEDEM International Conference*. European Academy of Management and Business Economics (AEDEM).

Bernon, M., Cullen, J., & Gorst, J. (2016). Online retail returns management: Integration within an omni-channel distribution context. *International Journal of Physical Distribution & Logistics Management*.

Bouzaabia, R., Bouzaabia, O., & Capatina, A. (2013). Retail logistics service quality: a cross-cultural survey on customer perceptions. *International Journal of Retail & Distribution Management*, 41(8), 627-647.

Bryman, A., & Emma, B. (2003). *Business Research Methods*. New York: Oxford University.

Cai, Y. J., & Lo, C. K. (2020). Omni-channel management in the new retailing era: A systematic review and future research agenda. *International Journal of Production Economics*, 229, 107729.

Cannon, J. P., & Homburg, C. (2001). Buyer–supplier relationships and customer firm costs. *Journal of marketing*, 65(1), 29-43.

Cao, L., & Li, L. (2015). The impact of cross-channel integration on retailers' sales growth. *Journal of retailing*, 91(2), 198-216.

Cao, L., & Li, L. (2018). Determinants of retailers' cross-channel integration: an innovation diffusion perspective on omni-channel retailing. *Journal of interactive marketing*, 44, 1-16.

Chang, Y. P., & Li, J. (2022). Seamless experience in the context of omnichannel shopping: scale development and empirical validation. *Journal of Retailing and Consumer Services*, 64, 102800.

- Chen, Y., Wang, H., Wang, L., & Ding, J. (2021). Consumer Identity and Loyalty in Electronic Product Offline Brand Operation: The Moderator Effect of Fanship. *Information*, 12(7), 282.
- Chi, H. H. (2011). Interactive digital advertising vs. virtual brand community: Exploratory study of user motivation and social media marketing responses in Taiwan. *Journal of interactive advertising*, 12(1), 44-61.
- Chicco, D., Warrens, M. J., & Jurman, G. (2021). The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. *PeerJ Computer Science*, 7, e623.
- Chopra, S. (2018). The evolution of omni-channel retailing and its impact on supply chains. *Transportation research procedia*, 30, 4-13.
- Cooper, D. R., Schindler, P. S., & Sun, J. (2006). *Business research methods* (Vol. 9, pp. 1-744). New York: Mcgraw-hill.
- Cotarelo, M., Calderón, H., & Fayos, T. (2021). A further approach in omnichannel LSQ, satisfaction and customer loyalty. *International Journal of Retail & Distribution Management*.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative* (Vol. 7). Prentice Hall Upper Saddle River, NJ.
- Dagger, T. S., Sweeney, J. C., & Johnson, L. W. (2007). A hierarchical model of health service quality: scale development and investigation of an integrated model. *Journal of service research*, 10(2), 123-142.
- Dhaigude, S. A., & Mohan, B. C. (2021). Logistics Service Quality in Online Shopping: A Bibliometric Analysis. *Journal of Internet Commerce*, 1-32.

Dirsehan, T., & Dirsehan, M. Ç. (2020). The Melody of Omnichannel Customer Experience Management (OCCEM). In *Managing Customer Experiences in an Omnichannel World: Melody of Online and Offline Environments in the Customer Journey*. Emerald Publishing Limited.

Evans, S., Anderson, J. M., Johnson, A. L., Checketts, J. X., Scott, J., Middlemist, K., ... & Vassar, M. (2021). The potential effect of lowering the threshold of statistical significance from $P < .05$ to $P < .005$ in orthopaedic sports medicine. *Arthroscopy: The Journal of Arthroscopic & Related Surgery*, 37(4), 1068-1074.

Foo, J., A-Jalil, E. E., Salmuni, W., & Mustaffa, W. (2020). What's Up Omni? The Relationship Between Omni-Channel Supply Chain and Logistics Service Quality in Influencing Online Purchasing Behaviour. *Int. J. Supply Chain Manag.*, 9(4), 643-650.

Gammon, C. (2013). Quantitative and qualitative research traditions: Different but complementary.

Gao, W., Fan, H., Li, W., & Wang, H. (2021). Crafting the customer experience in omnichannel contexts: The role of channel integration. *Journal of Business Research*, 126, 12-22.

Gao, W., Li, W., Fan, H., & Jia, X. (2021). How customer experience incongruence affects omnichannel customer retention: The moderating role of channel characteristics. *Journal of Retailing and Consumer Services*, 60, 102487.

Gasparin, I., Panina, E., Becker, L., Yrjölä, M., Jaakkola, E., & Pizzutti, C. (2022). Challenging the "integration imperative": A customer perspective on omnichannel journeys. *Journal of Retailing and Consumer Services*, 64, 102829.

- Gawor, T., & Hoberg, K. (2018). Customers' valuation of time and convenience in e-fulfillment. *International Journal of Physical Distribution & Logistics Management*.
- Gerea, C., & Herskovic, V. (2022). Transitioning from Multichannel to Omnichannel Customer Experience in Service-Based Companies: Challenges and Coping Strategies. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(2), 394-413.
- Gerea, C., Gonzalez-Lopez, F., & Herskovic, V. (2021). Omnichannel customer experience and management: An integrative review and research agenda. *Sustainability*, 13(5), 2824.
- Gil-Saura, I., & Ruiz-Molina, M. E. (2011). Logistics service quality and buyer–customer relationships: the moderating role of technology in B2B and B2C contexts. *The service industries journal*, 31(7), 1109-1123.
- Glass, G. V., & Hopkins, K. D. (1996). Statistical methods in education and psychology.
- Hair, J., Bush, R., & Ortinau, D. (2003). *Marketing research: Within a changing information environment*. (2nd ed.). New Delhi: Tata McGraw-Hill.
- Hamouda, M. (2019). Omni-channel banking integration quality and perceived value as drivers of consumers' satisfaction and loyalty. *Journal of Enterprise Information Management*.
- Hayes, Ó., & Kelliher, F. (2022). The emergence of B2B omni-channel marketing in the digital era: a systematic literature review. *Journal of Business & Industrial Marketing*.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.

Hietanen, E. (2022). Managing omnichannel customer experience through customer journeys in the automotive industry.

Hole, Y., Pawar, M. S., & Khedkar, E. B. (2019, November). Omni channel retailing: An opportunity and challenges in the Indian market. In *Journal of Physics: Conference Series* (Vol. 1362, No. 1, p. 012121). IOP Publishing.

Hole, Y., Pawar, M. S., & Khedkar, E. B. (2019, November). Omni channel retailing: An opportunity and challenges in the Indian market. In *Journal of Physics: Conference Series* (Vol. 1362, No. 1, p. 012121). IOP Publishing.

Huang, J., & Shi, X. (2021). Solving the location problem of front distribution center for omni-channel retailing. *Complex & Intelligent Systems*, 1-12.

Hurriyati, R., & Gaffar, V. (2021, September). Omnichannel Customer Experience: A Literature Review. In *5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)* (pp. 585-589). Atlantis Press.

Hüseyinoğlu, I. Ö. Y., Sorkun, M. F., & Börühan, G. (2018). Revealing the impact of operational logistics service quality on omni-channel capability. *Asia Pacific Journal of Marketing and Logistics*.

Hüseyinoğlu, I. Ö. Y., Sorkun, M. F., & Börühan, G. (2018). Revealing the impact of operational logistics service quality on omni-channel capability. *Asia Pacific Journal of Marketing and Logistics*.

- Jiu, S. (2022). Robust omnichannel retail operations with the implementation of ship-from-store. *Transportation Research Part E: Logistics and Transportation Review*, 157, 102550.
- Jocevski, M., Arvidsson, N., Miragliotta, G., Ghezzi, A., & Mangiaracina, R. (2019). Transitions towards omni-channel retailing strategies: a business model perspective. *International Journal of Retail & Distribution Management*.
- Jones, A. L., Miller, J. W., Griffis, S. E., Whipple, J. M., & Voorhees, C. M. (2021). An examination of the effects of omni-channel service offerings on retailer performance. *International Journal of Physical Distribution & Logistics Management*.
- Kembro, J. H., Norrman, A., & Eriksson, E. *International Journal of Physical Distribution & Logistics Management*.
- Klaus, P. P., & Maklan, S. (2013). Towards a better measure of customer experience. *International journal of market research*, 55(2), 227-246.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Kumar, V., Anand, A., & Song, H. (2017). Future of retailer profitability: An organizing framework. *Journal of Retailing*, 93(1), 96-119.
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Sage publications.
- Le, A. N. H., & Nguyen-Le, X. D. (2020). A moderated mediating mechanism of omnichannel customer experiences. *International Journal of Retail & Distribution Management*.

Lee, Z. W., Chan, T. K., Chong, A. Y. L., & Thadani, D. R. (2019). Customer engagement through omnichannel retailing: The effects of channel integration quality. *Industrial Marketing Management*, 77, 90-101.

Li, Y., Li, G., Tayi, G. K., & Cheng, T. C. E. (2019). Omni-channel retailing: Do offline retailers benefit from online reviews?. *International Journal of Production Economics*, 218, 43-61.

Liang, X., Gao, Y., & Ding, Q. S. (2018). “What you measure is what you will get”?: Exploring the effectiveness of marketing performance measurement practices. *Cogent Business & Management*, 5(1), 1503221.

López-González, E., Martínez-Ferrero, J., & García-Meca, E. (2019). Corporate social responsibility in family firms: A contingency approach. *Journal of cleaner production*, 211, 1044-1064.

Marchet, G., Melacini, M., Perotti, S., Rasini, M., & Tappia, E. (2018). Business logistics models in omni-channel: a classification framework and empirical analysis. *International Journal of Physical Distribution & Logistics Management*.

Martinez, F. J. G., Calvo, A., & Salgado, L. M. G. (2021). *Understanding Omnichannel Customer Experience Through Brand Trust and Its Impact on Shopping Intention: Structured Abstract* (No. 5693). EasyChair.

Melacini, M., Perotti, S., Rasini, M., & Tappia, E. (2018). E-fulfilment and distribution in omni-channel retailing: a systematic literature review. *International Journal of Physical Distribution & Logistics Management*.

Mishra, R., Singh, R. K., & Koles, B. (2021). Consumer decision-making in Omnichannel retailing: Literature review and future research agenda. *International Journal of Consumer Studies*, 45(2), 147-174.

Mladenow, A., Mollova, A., & Strauss, C. (2018, November). Mobile technology contributing to omni-channel retail. In *Proceedings of the 16th International Conference on Advances in Mobile Computing and Multimedia* (pp. 92-101).

Moldabekova, A., Zhidebekkyzy, A., Akhmetkaliyeva, S., & Baimukhanbetova, E. (2020). Advanced technologies in improving the management of logistics services: Bibliometric network analysis. *Polish Journal of Management Studies*, 21.

Momen, S., & Torabi, S. A. (2021). Omni-channel retailing: A data-driven distributionally robust approach for integrated fulfillment services under competition with traditional and online retailers. *Computers & Industrial Engineering*, 157, 107353.

Morgan, N. A., Clark, B. H., & Gooner, R. (2002). Marketing productivity, marketing audits, and systems for marketing performance assessment: integrating multiple perspectives. *Journal of business research*, 55(5), 363-375.

Mrutzek-Hartmann, B., Kotzab, H., Yumurtacı Hüseyinoğlu, I.Ö. and Kühling, S. (2022), "Omni-channel retailing resources and capabilities of SME specialty retailers – insights from Germany and Turkey", *International Journal of Retail & Distribution Management*, 50(8/9), 1129-1155.

Murfield, M., Boone, C. A., Rutner, P., & Thomas, R. International Journal of Physical Distribution & Logistics Management. *Logistics Management*, 47(4), 263-296.

Neuman, W. I. (2003). *Social research methods. (5th ed.)*. Upper Saddle River, NJ:Prentice Hall.

Noordewier, T. G., John, G., & Nevin, J. R. (1990). Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships. *Journal of marketing*, 54(4), 80-93.

O'Leary, Z. (2017). *The Essential Guide to Doing Your Research Project (3RD Edition)*. London: SAGE.

Otieno, R., Harrow, C., & Lea-Greenwood, G. (2005). The unhappy shopper, a retail experience: exploring fashion, fit and affordability. *International Journal of Retail & Distribution Management*.

Otto, A. S., Szymanski, D. M., & Varadarajan, R. (2020). Customer satisfaction and firm performance: insights from over a quarter century of empirical research. *Journal of the Academy of Marketing science*, 48(3), 543-564.

Pangarkar, A., Arora, V., & Shukla, Y. (2022). Exploring phygital omnichannel luxury retailing for immersive customer experience: The role of rapport and social engagement. *Journal of Retailing and Consumer Services*, 68, 103001.

Paul, J., Agatz, N., Spliet, R., & De Koster, R. (2019). Shared capacity routing problem— An omni-channel retail study. *European Journal of Operational Research*, 273(2), 731-739.

Pereira, M. M., & Frazzon, E. M. (2021). A data-driven approach to adaptive synchronization of demand and supply in omni-channel retail supply chains. *International Journal of Information Management*, 57, 102165.

- Pertusa-Ortega, E. M., Molina-Azorín, J. F., & Claver-Cortés, E. (2010). Competitive strategy, structure and firm performance: A comparison of the resource-based view and the contingency approach. *Management Decision*.
- Picot-Coupey, K., Huré, E., & Piveteau, L. (2016). Channel design to enrich customers' shopping experiences: synchronizing clicks with bricks in an omnichannel perspective-the Direct Optic case. *International Journal of Retail & Distribution Management*.
- Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the special issue information technology in retail: Toward omnichannel retailing. *International Journal of Electronic Commerce*, 18(4), 5-16.
- Quach, S., Barari, M., Moudrý, D. V., & Quach, K. (2020). Service integration in omnichannel retailing and its impact on customer experience. *Journal of Retailing and Consumer Services*, 102267.
- Radziszewska, A. (2018). Logistics customer service quality in the context of Omnichannel strategy. *Przedsiębiorczość i Zarządzanie*, 19(11.3), 67-76.
- Rahman, S. M., Carlson, J., Gudergan, S. P., Wetzels, M., & Grewal, D. (2022). Perceived omnichannel customer experience (OCX): Concept, measurement, and impact. *Journal of Retailing*.
- Raza, S. A., & Govindaluri, S. M. (2021). OC retailing in supply chains: a systematic literature review. *Benchmarking: An International Journal*.
- Riaz, H., Baig, U., Meidute-Kavaliauskiene, I., & Ahmed, H. (2021). Factors effecting omnichannel customer experience: evidence from fashion retail. *Information*, 13(1), 12.

Riquelme, H. (2001). Do consumers know what they want?. *Journal of Consumer Marketing*.

Rönkkö, M., & Cho, E. (2022). An updated guideline for assessing discriminant validity. *Organizational Research Methods*, 25(1), 6-14.

Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences [by] John T. Roscoe*.

Roth, A. V., & Jackson III, W. E. (1995). Strategic determinants of service quality and performance: Evidence from the banking industry. *Management science*, 41(11), 1720-1733.

Sandberg, E., & Abrahamsson, M. (2022). Exploring organizational learning and experimental logistics development at the global fashion retailer H&M. *Global Business and Organizational Excellence*, 41(2), 6-20.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763-1768.

Sekaran, U. (2010). *Research Methods for business: A skill Building Approach (5th Edition)*. USA: John Wiley & Sons Publishers.

Shi, S., Wang, Y., Chen, X., & Zhang, Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *International Journal of Information Management*, 50, 325-336.

- Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39-42.
- Skipper, J. B., & Hanna, J. B. (2009). Minimizing supply chain disruption risk through enhanced flexibility. *International Journal of Physical Distribution & Logistics Management*.
- Song, G., & Song, S. (2021). Fostering supply chain integration in omni-channel retailing through human resource factors: empirical study in China's market. *International Journal of Logistics Research and Applications*, 24(1), 1-22.
- Song, G., Song, S., & Sun, L. (2019). Supply chain integration in omni-channel retailing: a logistics perspective. *The International Journal of Logistics Management*.
- Song, S., Shi, X., Song, G., & Huq, F. A. (2021). Linking digitalization and human capital to shape supply chain integration in omni-channel retailing. *Industrial Management & Data Systems*.
- Sorkun, M. F., Hüseyinoğlu, I. Ö. Y., & Börühan, G. (2020). Omni-channel capability and customer satisfaction: mediating roles of flexibility and operational logistics service quality. *International Journal of Retail & Distribution Management*, 48(6), 629-648.
- Sorkun, M. F., Hüseyinoğlu, I. Ö. Y., & Börühan, G. (2020). Omni-channel capability and customer satisfaction: mediating roles of flexibility and operational logistics service quality. *International Journal of Retail & Distribution Management*, 48(6), 629-648.

Thaichon, P., Phau, I., & Weaven, S. (2020). Moving from multi-channel to Omni-channel retailing: Special issue introduction. *Journal of Retailing and Consumer Services*, 102311.

Turner, B. O., Paul, E. J., Miller, M. B., & Barbey, A. K. (2018). Small sample sizes reduce the replicability of task-based fMRI studies. *Communications Biology*, 1(1), 1-10.

Tyrväinen, O., Karjaluoto, H., & Saarijärvi, H. (2020). Personalization and hedonic motivation in creating customer experiences and loyalty in omnichannel retail. *Journal of Retailing and Consumer Services*, 57, 102233.

Ürgüplü, Ö., & Hüseyinoğlu, I. Ö. Y. (2021). The mediating effect of consumer empowerment in omni-channel retailing. *International Journal of Retail & Distribution Management*, 49(11), 1481-1496.

Uvet, H. (2020). Importance of logistics service quality in customer satisfaction: An empirical study. *Operations and Supply Chain Management: An International Journal*, 13(1), 1-10.

Van Nguyen, A. T., McClelland, R., & Thuan, N. H. (2022). Exploring customer experience during channel switching in omnichannel retailing context: A qualitative assessment. *Journal of Retailing and Consumer Services*, 64, 102803.

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS quarterly*, 21-54.

- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of retailing*, 91(2), 174-181.
- Von Briel, F. (2018). The future of omnichannel retail: A four-stage Delphi study. *Technological Forecasting and Social Change*, 132, 217-229.
- Welman, C., Kruger, F., & Mitchell, B. (2007). *Research Methodology. 3rd Edition*. Cape Town, South Africa: Oxford Southern Africa.
- Xu, X., & Jackson, J. E. (2019). Examining customer channel selection intention in the omni-channel retail environment. *International Journal of Production Economics*, 208, 434-445.
- Ye, Y., Lau, K. H., & Teo, L. K. Y. (2018). Drivers and barriers of omni-channel retailing in China: A case study of the fashion and apparel industry. *International Journal of Retail & Distribution Management*.
- Yrjölä, M., Saarijärvi, H., & Nummela, H. (2018). The value propositions of multi-, cross-, and omni-channel retailing. *International Journal of Retail & Distribution Management*.
- Yrjölä, M., Spence, M. T., & Saarijärvi, H. (2018). Omni-channel retailing: propositions, examples and solutions. *The International Review of Retail, Distribution and Consumer Research*, 28(3), 259-276.
- Yu, K., Cadeaux, J., & Luo, B. N. (2015). Operational flexibility: Review and meta-analysis. *International Journal of Production Economics*, 169, 190-202.

Zhang, J., Xu, Q., & He, Y. (2018). Omnichannel retail operations with consumer returns and order cancellation. *Transportation Research Part E: Logistics and Transportation Review*, 118, 308-324.

Zhang, L., Wu, L., Huang, L., & Zhang, Y. (2021). Wield the power of omni-channel retailing strategy: a capability and supply chain resilience perspective. *Journal of Strategic Marketing*, 1-25.

Zhang, M., Ren, C., Wang, G. A., & He, Z. (2018). The impact of channel integration on consumer responses in omni-channel retailing: The mediating effect of consumer empowerment. *Electronic Commerce Research and Applications*, 28, 181-193.

Webography

Convenience Sampling: Definition, Advantages and Examples. Retrieved November 18, 2022, from <https://www.questionpro.com/blog/convenience-sampling/>

Khan, M. (2019, September 27). *What is Data Analysis*. Retrieved November 20, 2022, from <https://medium.com/@musab.khan1/data-analysis-is-a-process-of-cleaningtransforming-and-modeling-data-to-discover-useful-d93b8f483156>

McCombes, S. (2019, September 19). *Understanding different sampling methods*. Retrieved November 20, 2022, from <https://www.scribbr.com/methodology/sampling-methods/>

Middleton, F. (2019, July 03). *Reliability vs validity: what's the difference?* Retrieved November 19, 2022, from <https://www.scribbr.com/methodology/reliability-vs-validity/#:~:text=Reliability%20and%20validity%20are%20concepts,the%20accuracy%20of%20a%20measure>

Non-Probability Sampling: Types, Examples, & Advantages. Retrieved November 18, 2022, from <https://www.questionpro.com/blog/non-probability-sampling/>

Appendix

A) Research Study Questionnaire Copy

Dear Participant,

This questionnaire is part of the research study titled “*Exploring the Omni-channel Retailing Capability on Customer Satisfaction: The Role of Logistics Service Quality*”. Your active participation and genuine response will be highly appreciated. I hereby declare that all the information provided will be held confidential and will only be used for the current research work under progress.

Part A: Demographic information of respondents.

1. Gender

- ☐ Male
- ☐ Female

2. Age

- ☐ 18-25 years old
- ☐ 26-35 years old
- ☐ 36-45 years old
- ☐ 46 or above

3. Marital status

- ☐ Single
- ☐ Married

4. Education

- ☐ Less than secondary school
- ☐ Secondary school
- ☐ Undergraduate

☐ Master/PHD

5. Employment status

☐ Employed

☐ Student

☐ Housewife

☐ Retired

☐ Unemployed

6. Online shopping experience

☐ Less than 1 year

☐ From 1 year up to 3 years

☐ From 3 years up to 5 years

☐ 5 years and more

7. The number of online purchases within last 6 months

☐ 0 times

☐ 1 to 5 times

☐ 6 to 10 times

☐ More than 10 times

Part B: This section of questionnaire measures omni-channel capability, flexibility, operational logistics service quality, and customer satisfaction. **Before** answering the below statements, consider any particular retailer that you have shopped frequently from both of its online and physical store. Please indicate how strongly you agree or disagree with each of the statement (1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree, 5 = strongly agree). Indicate your answer with (✓) inside the appropriate box.

*The considered retailer belongs to which of the following retail industry

- ☐ Consumer electronics industry
- ☐ Fashion and apparel industry
- ☐ Food industry
- ☐ Homeware industry

	Statements	1	2	3	4	5
1.	I can buy products from retailer's online stores that are available at their physical stores.					
2.	I can easily complete my shopping regardless of which marketing channel of the retailer I use.					
3.	All the sales outlets of the retailer (physical and online stores) operate at the same level of efficiency.					
4.	I can pick up the products purchased online from the retailer's physical stores.					
5.	My online purchases can be delivered the same day to the retailer's physical store for collection.					
6.	The product I ordered from online store can be purchased from retailer's physical store.					
7.	The retailer successfully uses social media to promote its products in all marketing channels.					
8.	The retailer successfully uses social media to inform about the ongoing discounts on products in all marketing channels.					

9.	During my shopping, the retailer is flexible enough to deal with unexpected problems.					
10.	During my shopping, changes are well managed by the retailer.					
11.	The retailer can easily adjust products to meet my changing needs.					
12.	The retailer is flexible in response to my requests.					
13.	Information about the product features is adequate.					
14.	Purchased products performs effectively.					
15.	purchased products are always delivered correctly.					
16.	Product delivered from the retailer is not damaged.					
17.	The available information about the products is completely correct.					
18.	Time duration between placing an order and receiving delivery is short.					
19.	Correction of discrepancy in delivered quality is adequate.					
20.	There are no issues when returning non-conforming products.					
21.	Deliveries are made on the scheduled date.					
22.	My feelings are positive for the retailer.					
23.	I am confident in selecting this retailer for the products I am searching for.					
24.	Overall, I am pleased with the service provided by this retailer.					

25.	I am satisfied that this retailer delivers the best possible results for me.					
26.	The level to which this retailer has delivered me the best possible results is satisfying.					

B) Variance Inflation Factor

	VIF
CC1	1.830
CC2	1.881
CC3	1.759
CC4	1.751
CRC1	1.934
CRC2	1.789
CS1	2.944
CS2	2.723
CS3	2.464
CS4	2.807
CS5	2.875
FLEX1	2.705
FLEX2	2.573
FLEX3	2.746
FLEX4	2.416
OPLSQ1	2.122
OPLSQ2	2.370
OPLSQ3	2.767
OPLSQ4	2.552
OPLSQ5	2.590
OPLSQ6	2.582
OPLSQ7	2.583
OPLSQ8	1.969
OPLSQ9	1.543
SM1	2.568

C) Demographic Characteristics

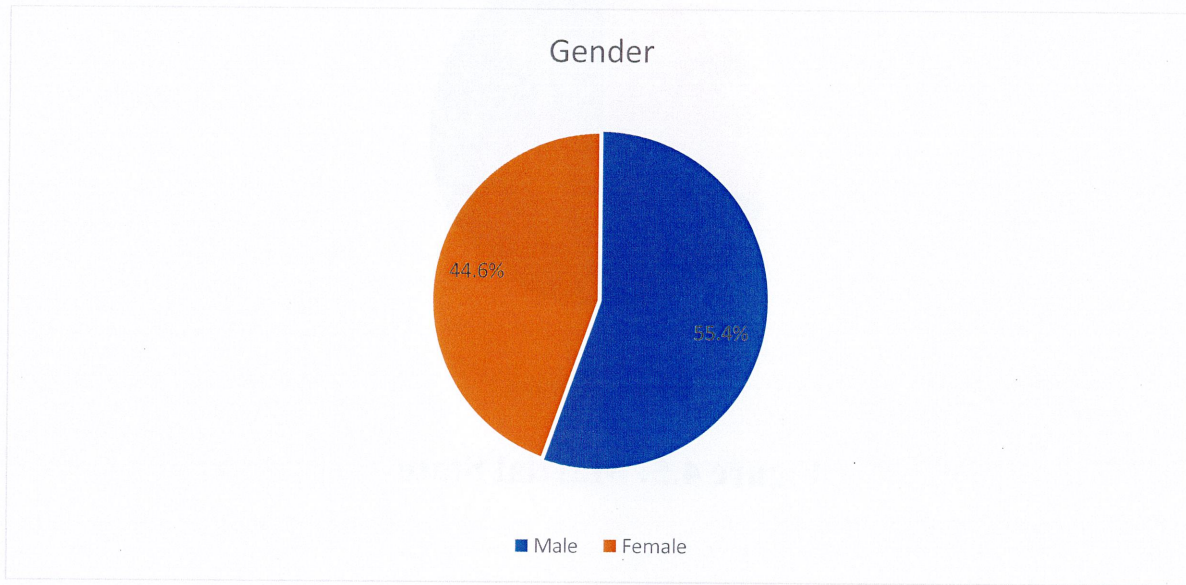


Figure 4.3: Gender

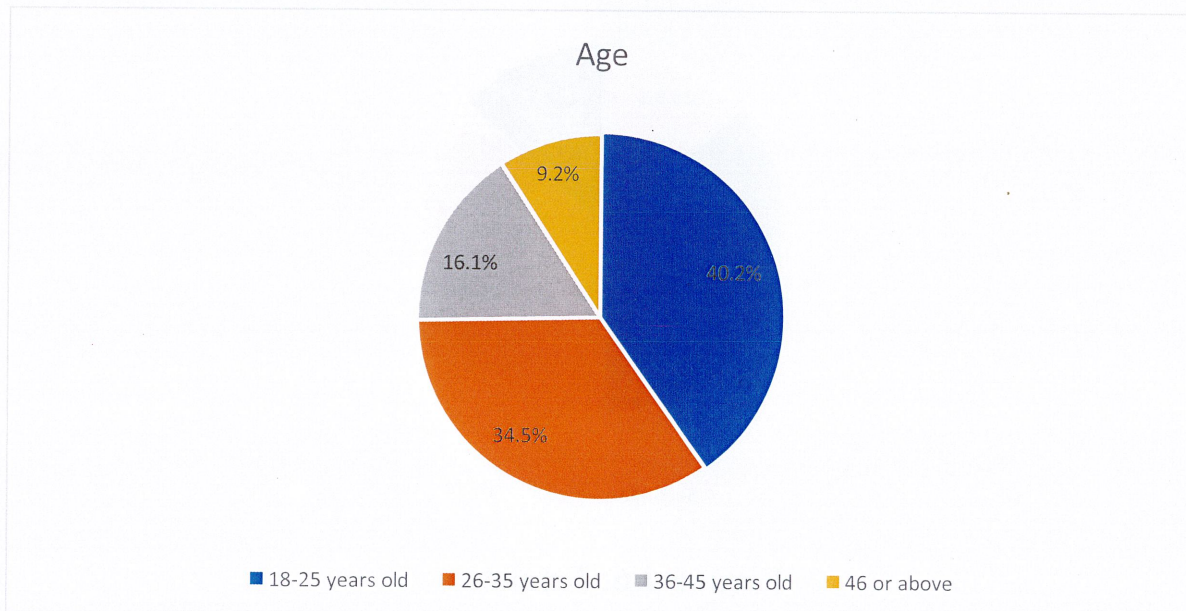


Figure 4.4: Age

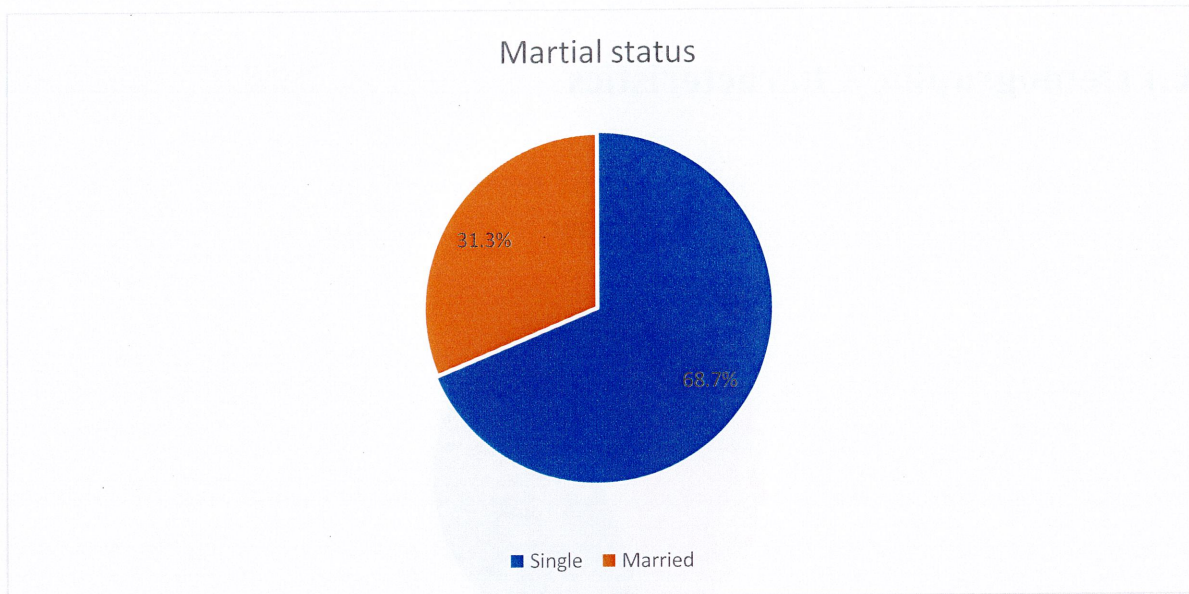


Figure 4.5: Martial Status

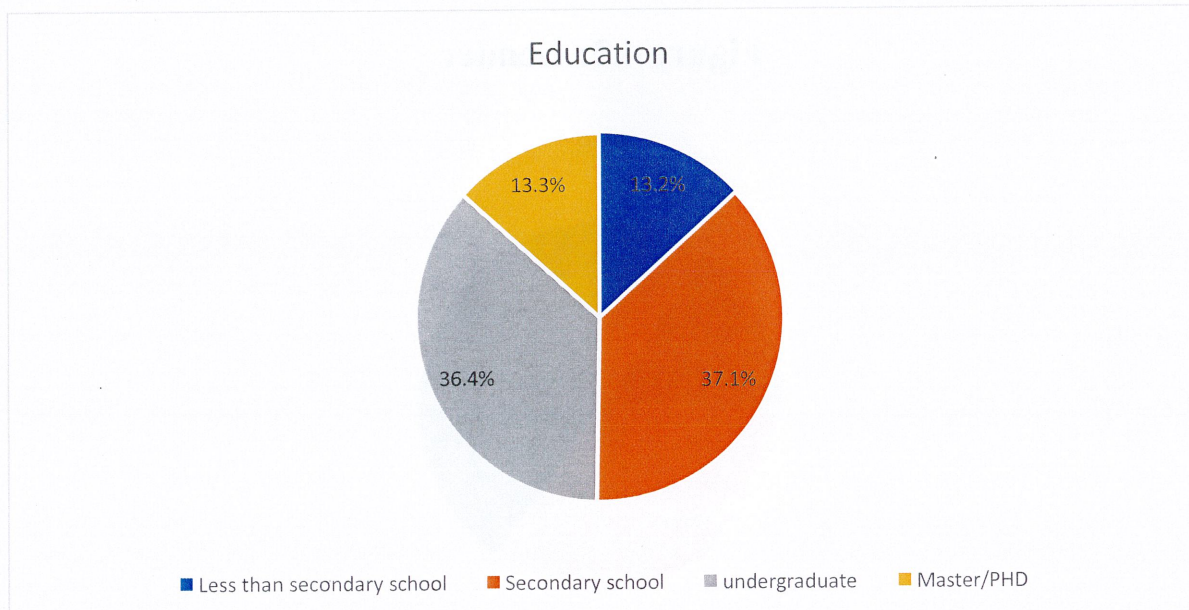


Figure 4.6: Education

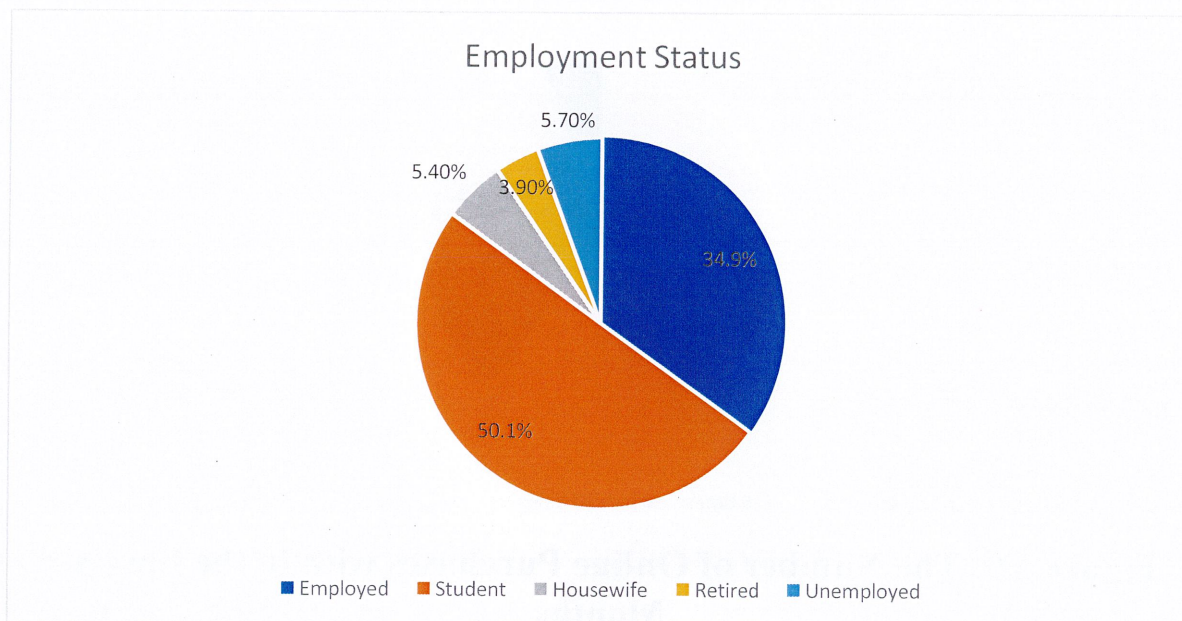


Figure 4.7: Employment Status



Figure 4.8: Online Shopping Experience

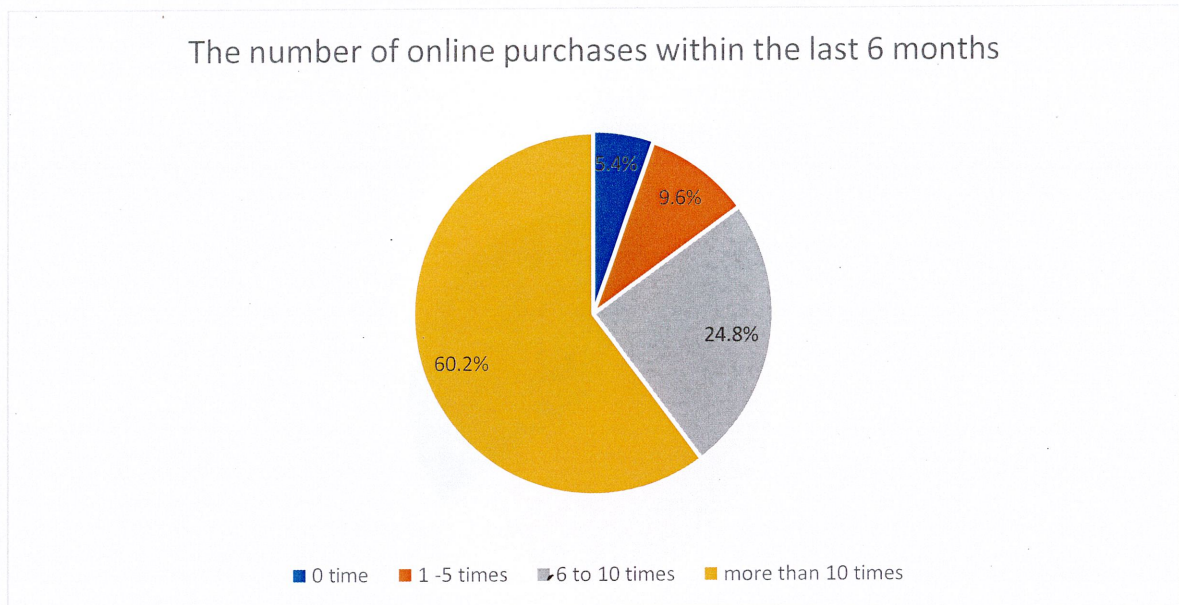


Figure 4.9: The Number of Online Purchases with in the Last Six Months

خلاصة

يهدف هذا البحث إلى استكشاف قدرة البيع بالتجزئة للقنوات المتعددة على رضا العملاء وتقييم الدور الوسيط لجودة ومرونة الخدمة اللوجستية التشغيلية. كانت التركيبات من الدرجة الأولى في هذه الدراسة هي اتساق القناة ، والقنوات المتقاطعة ، ووسائل التواصل الاجتماعي ، والمرونة ، وجودة الخدمات اللوجستية التشغيلية ، ورضا العملاء. تم قياس قدرة قناة أومني على أنها بناء من الدرجة الثانية مع اتساق القناة والقناة المتقاطعة والوسائط الاجتماعية كبناء من الدرجة الأولى.

هذه الدراسة أولية بطبيعتها وتم استخدام النهج الكمي. تم جمع البيانات من خلال استبيان المسح ، لذلك قام الباحث بجمع ٢٥٣ إجابة من المبحوثين باستخدام أسلوب أخذ العينات المريح وكرة الثلج. استخدم الباحث لتحليل البيانات بما في ذلك التمهيد لاختبار فرضية البحث (SEM) تقنية نمذجة المعادلات الهيكلية.

تظهر نتائج هذا البحث التأثير الإيجابي لأدوار الوساطة من حيث المرونة وجودة الخدمة اللوجستية التشغيلية ليس لها تأثير مباشر كبير على مستوى رضا OC على رضا العملاء. ومع ذلك ، فقد أشارت إلى أن قدرة العملاء.

الكلمات المفتاحية: المرونة، جودة الخدمة اللوجستية، القناة الشاملة، رضا العملاء



جامعة البحرين

قسم الإدارة والتسويق

كلية إدارة الأعمال

استكشاف قدرة البيع بالتجزئة للقنوات المتعددة على رضا العملاء: دور جودة الخدمات اللوجستية

بحث علمي لاستكمال متطلبات درجة الماجستير في إدارة الأعمال

اعداد

عبدالرحمن حبيب

20122432

بإشراف

الدكتور وليد عبدالعزيز

(أستاذ مشارك)

جامعة البحرين

مملكة البحرين

ديسمبر ٢٠٢٢