An Analysis of the Antecedents and Outcomes of Customer Experience in Omnichannel Retailing: An Empirical Study in the Technical Consumer Goods Sector

A Thesis submitted in partial fulfillment for the Degree of

DOCTOR OF PHILOSOPHY

in Commerce

IN GOA BUSINESS SCHOOL

Goa University

By

Maria Sancha Ema De Assunção Pereira

Research Centre in Commerce,

S.S.A. Government College & Research Centre, Pernem, Goa

APRIL 2026

DECLARATION

I, Maria Sancha Ema De Assunção Pereira, hereby declare that this thesis represents work which has been carried out by me and that it has not been submitted, either in part or full, to any other University or Institution for the award of any research degree.

Place: Taleigao Plateau.

Date: Maria Sancha Ema De Assunção Pereira

CERTIFICATE

I hereby certify that the above Declaration of the candidate, Maria Sancha Ema De Assunção Pereira, is true and the work was carried out under my supervision.

Juao C. Costa
Professor,
Research Centre in Commerce,
S.S.A. Government College and Research Centre,
Virnoda, Pernem, Goa

ACKNOWLEDGEMENT

With a deep sense of gratitude, I would like to begin by thanking the Almighty for blessing me with the inspiration, strength, knowledge and perseverance needed at every stage of my research journey, right from inception to completion. It is only through divine grace that this thesis has seen the light of day.

The successful completion of this thesis has also been possible due to the encouragement, guidance, and assistance of many individuals. To all of them, I owe a debt of gratitude.

My profound and heartfelt thanks go to my Research Guide, Prof. Juao C. Costa, Principal, S.S.A. Government College and Research Centre, Pernem, for giving me the opportunity to pursue this research and for providing invaluable suggestions throughout the study. His guidance has steered me through every phase of my research. It has been an honour and a privilege to study and work under his mentorship.

I also extend my thanks to Prof. Sathish Antony and Dr Pournima Shenvi Dhume, members of the Departmental Review Committee, for periodically reviewing my progress. Their insightful advice has rightly directed me during this journey.

I am also very thankful to the Principal of my college, Prof. Helic Barretto, for his continuous support.

To all the participants in my survey—especially the retail managers who generously set aside time from their busy schedules—I extend my heartfelt thanks. Your willingness to share your experiences brought the data behind this research to life. I would also like to place on record my appreciation and gratitude to all respondents who participated in the survey and took the time to complete the questionnaire. My gratitude goes to Mr Ravi Verdes, whose connections and efforts helped me reach industry professionals across the country. Your support truly made a difference.

To my parents, Alvaro de A. Pereira and Helen Verdes, your support throughout my research journey is beyond what mere words can express. Your love, sacrifice, prayers and faith in me have been my greatest strength and motivation. You both literally stepped into my shoes and raised my daughter, never for a second making her feel my absence. For that, I am forever in your debt.

To my daughter, Norah, my little bundle of joy, thank you for being the light in my life, even on the toughest days. At the end of a long, hard day, I would always look forward to your infectious smile and melting into your warm embrace, just what I needed to keep me going and to remind me of all the blessings I had and all that I was missing. I do hope and pray that I can make up for the time lost and that all this was worth it.

To my husband, Moses Fernandes, thank you for your patience, understanding, and unwavering encouragement through every high and low of this journey. When I felt overwhelmed, uncertain, and ready to give up, you stood beside me and reminded me of my strength. If it wasn't for you, I don't think I would have made it this far in my research journey. You reinforced in me, time and again, that I could do this, and it was your belief in me, even when I doubted myself, that helped me move forward.

To my colleagues and friends at Rosary College of Commerce and Arts, I thank you for your support and encouragement, which has motivated me to work harder towards achieving this goal.

I would also like to acknowledge the assistance rendered by the administrative staff of Goa Business School and S.S.A. Government College and Research Centre, Pernem, as well as the Library and Computer Centre staff of Goa University. Their assistance, often behind the scenes, was essential to completing this research.

Lastly, to all those who, knowingly or unknowingly, influenced my journey with their kindness, encouragement, or support. To them I offer my sincere and heartfelt thanks. Each one of you has contributed in small, seemingly insignificant, yet significant ways to making this research a reality, and for that I am deeply grateful.

CONTENTS

1 INTRODUCTION 1

1.1 Background of the Study 1

1.1.1 Customer Experience 4

1.1.2 Omnichannel Retailing 4

1.1.3 Omnichannel Customer Experience (OCCE) 6

1.1.4 Technical Consumer Goods Sector 7

1.2 Theoretical Background 8

1.3 Research Questions 10

1.4 Research Objectives 11

1.5 Significance of the study 11

1.6 Scope of the study 13

1.7 Chapterisation Scheme 13

2 REVIEW OF LITERATURE 17

2.1 Introduction 17

2.2 Antecedents of customer experience and omnichannel retailing 17

2.2.1 Experiential and emotional antecedents 17

2.2.2 Channel integration as an antecedent of omnichannel experience 20

2.2.3 Omnichannel customer experience scale and dimensions 22

2.2.4 Technology acceptance and omnichannel adoption 23

2.2.5 Retail mix and product-type determinants of omnichannel experience 25

2.3 Role of demographics in determining omnichannel experiences 28

2.3.1 Gender 28

2.3.2 Age 29

2.3.3 Income 30

2.4 Outcomes of customer experience and omnichannel retailing 31
2.5 Analytical Hierarchy Process in Omnichannel Retailing 33
2.6 Research Gap.....36
2.7 Conceptual Model and the Development of the Hypotheses 37
2.7.1 Hypotheses of the study 38
2.8 Summary 42
3 RESEARCH METHODOLOGY.....43
3.1 Introduction 43
3.2 Research Design – Antecedents and Outcomes of Omnichannel Customer Experience 44
3.2.1 Sampling Design 44
3.2.2 Data type and method of collection 46
3.2.3 Questionnaire design, Content validity, and Pilot study 46
3.3 Research Design – Analytical Hierarchy Process.....56
3.4 Statistical Methods Used in the Study 57
3.4.1 Descriptive Analysis.....57
3.4.2 Reliability Analysis.....57
3.4.3 Construct Validity 57
3.4.4 Multicollinearity.....58
3.4.5 Structural Equation Modelling (SEM).....58
3.4.6 Moderation Analysis 58
3.4.7 Correlation Analysis 58
3.4.8 Multiple Regression Analysis 59
3.4.9 Mediation Analysis.....59
3.4.10 Analytical Hierarchy Process (AHP) 59

3.5 Confidence Level and Level of Significance 60
3.6 Software used for Data Analysis 60
3.7 Summary 60
4 ANTECEDENTS OF OMNICHANNEL CUSTOMER EXPERIENCE 63
4.1 Introduction 63
4.2 Demographic Profile of the Respondents 63
4.3 Descriptive Statistics 65
4.4 Assessment of the Measurement Model 68
4.4.1 Reliability analysis 68
4.4.2 Construct validity 68
4.4.3 Multicollinearity 74
4.4.4 Common Method Bias 74
4.5 Antecedents of Omnichannel Customer Experience (OCCE) 77
4.6 Results 79
4.7 Discussion 80
4.8 Summary 81
5 MODERATING EFFECT OF DEMOGRAPHICS 83
5.1 Introduction 83
5.2 Moderating Effect of Gender 84
5.2.1 Results 84
5.2.2 Discussion 85
5.3 Moderating Effect of Age 86
5.3.1 Results 87
5.3.2 Discussion 89
5.4 Moderating Effect of Income 89
5.4.1 Results 91
5.4.2 Discussion 92

5.5 Moderating Effect of Education 93
5.5.1 Results 95
5.5.2 Discussion 96
5.6 Summary 96
6 IMPACT OF ANTECEDENTS OF OMNICHANNEL CUSTOMER EXPERIENCE ON THE DIMENSIONS OF OMNICHANNEL CUSTOMER EXPERIENCE 97
6.1 Introduction 97
6.2 Correlation analysis 97
6.3 Multiple Regression Analysis: Integration vs Antecedents of OCCE 101
6.3.1 Results 102
6.3.2 Discussion 102
6.3.3 Multiple Regression Analysis: Consistency vs Antecedents of OCCE 103
6.3.4 Results 104
6.3.5 Discussion 104
6.4 Multiple Regression Analysis: Personalisation vs Antecedents of OCCE 105
6.4.1 Results 106
6.4.2 Discussion 106
6.5 Multiple Regression Analysis: Connectivity vs Antecedents of OCCE 107
6.5.1 Results 108
6.5.2 Discussion 109
6.6 Multiple Regression Analysis: Flexibility vs Antecedents of OCCE 109
6.6.1 Results 110
6.6.2 Discussion 111
6.7 Summary 111
7 OUTCOMES OF OMNICHANNEL CUSTOMER EXPERIENCE 113
7.1 Introduction 113
7.2 Outcomes of Omnichannel Customer Experience 113
7.2.1 Results 115

7.2.2 Discussion 115
7.3 Mediating effect of CS between OCCE and RPI and OCCE and WOM 117
7.3.1 Results 119
7.3.2 Discussion 120
7.4 Summary 123
8 DEVELOPMENT OF OMNICHANNEL CUSTOMER EXPERIENCE INDEX 125
8.1 Introduction 125
8.2 Methodology 125
8.2.1 Steps in the development of AHP 125
8.2.2 Calculation of Priority Weights, Consistency Index (CI), Consistency Ratio (CR) 127
8.2.3 Aggregating Local and Global Weights 128
8.2.4 Results and Discussion 131
8.3 Summary 133
9 FINDINGS, CONCLUSIONS AND SUGGESTIONS 135
9.1 Findings 135
9.2 Conclusions 139
9.3 Contributions of the Study 140
9.4 Managerial Implications 141
9.5 Suggestions of the Study 142
9.6 Limitations of the Study 144
9.7 Scope for Future Research 145
REFERENCES 147
ANNEXURE I: QUESTIONNAIRE I 175
ANNEXURE II: QUESTIONNAIRE II 183
ANNEXURE III: INPUTS FOR AHP ANALYSIS 185
ANNEXURE IV: RESEARCH FINDINGS PUBLISHED AND PRESENTED 189

List of Tables

Table 1.1: Distinction between Services and Experiences 2

Table 3.1: Constructs, Items and Sources 50

Table 4.1: Demographic Profile of the Survey Respondents 64

Table 4.2: Descriptive Analysis 65

Table 4.3: Construct Reliability, Convergent Validity, and Item Multicollinearity 69

Table 4.4: HTMT Ratio for Discriminant Validity 72

Table 4.5: Fornell- Larcker Criterion for Discriminant Validity 73

Table 4.6: Results of CMB using Harman single factor method 74

Table 4.7: Antecedents of OCCE 79

Table 5.1: Moderating effect of Gender 84

Table 5.2: Individual slope coefficients 86

Table 5.3: Moderating effect of Age 87

Table 5.4: Individual slope coefficients 90

Table 5.5: Moderating effect of Income 90

Table 5.6: Moderating effect of Education 95

Table 6.1: Correlation analysis 99

Table 6.2: Multiple regression analysis: Integration v/s antecedents of OCCE 101

Table 6.3: Multiple regression analysis: Consistency vs Antecedents of OCCE 104

Table 6.4: Multiple Regression Analysis: Personalisation vs Antecedents of OCCE 106

Table 6.5: Multiple Regression Analysis: Connectivity vs Antecedents of OCCE 108

Table 6.6: Multiple Regression Analysis: Flexibility vs Antecedents of OCCE 110

Table 7.1: Relationship between OCCE, CS, RPI and WOM 114

Table 7.2: Mediating effect of CS between OCCE and RPI.....118

Table 7.3: Mediating effect of CS between OCCE and WOM 119

Table 8.1: Global and Local weights of the dimensions/sub-dimensions 128

List of Figures

Figure 1.1: Evolution of Customer-Centric Models 2

Figure 1.2: Categorisation of Goods 7

Figure 2.1: Research Model 38

Figure 4.1: Antecedents of OCCE 78

Figure 5.1: Moderating effect of education 94

Figure 7.1: Relationship between OCCE, CS, RPI and WOM 114

Figure 7.2: Mediating effect of CS between OCCE and RPI 117

Figure 7.3: Mediating effect of CS between OCCE and WOM 118

Figure 8.1: Main Dimension Weights 130

Figure 8.2: Sub-Dimension Weights 130

List of Abbreviations

AHP	Analytical Hierarchy Process
AES	Affective Experiential State
AVE	Average Variance Extracted
CEM	Customer Experience Management
CES	Cognitive Experiential State
CMB	Common Method Bias
CONN	Connectivity
CONS	Consistency
CR	Composite Reliability
CRM	Customer Relationship Management
CS	Customer Satisfaction
ECT	Expectancy-Confirmation Theory
FLEX	Flexibility
FMCG	Fast-Moving Consumer Goods
GW	Global Weight
HM	Hedonic Motivation
HTMT	Heterotrait-Monotrait
ICS	Integrated Customer Service
IINFO	Integrated Information
INT	Integration
IPPP	Integrated Product, Pricing and Promotion
LW	Local Weight
MGA	Multi-Group Analysis

OCCE	Omnichannel Customer Experience
OCE	Online Customer Experience
PER	Personalisation
PLS-SEM	Partial Least Squares-Structural Equation Modelling
PR	Perceived Risk
PT	Perceived Trust
RPI	Repurchase Intention
SDL	Service Dominant Logic
SEM	Structural Equation Modelling
SMCG	Slow-Moving Consumer Goods
SOR	Stimulus Response Organism
SPSS	Statistical Package for the Social Sciences
WOM	Word-of-Mouth Intention
TAM	Technology Acceptance Model
TCG	Technical Consumer Goods
UTAUT	Unified Theory of Acceptance and Use of Technology
VIF	Variance Inflation Factor

CHAPTER 1
INTRODUCTION

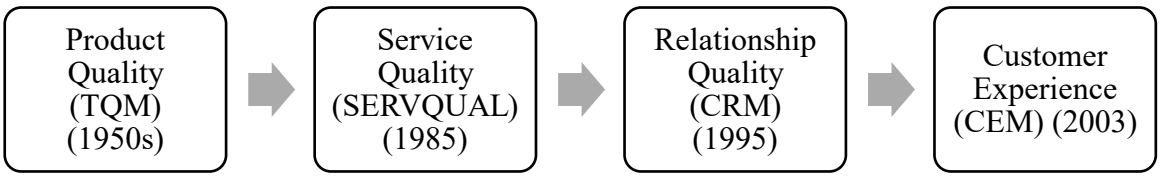
1.1 Background of the Study

The retail landscape in India is undergoing rapid transformation, with traditional brick-and-mortar stores, large organised retail chains and various e-commerce platforms co-existing, while simultaneously integrating to serve customers across multiple channels. Customers are engaging with businesses across multiple touchpoints, product/service offerings are easily mimicked, and competition is intense across industries. In this competitive environment, offering a good product or an efficient service is no longer the path to building a competitive advantage. Businesses are increasingly being evaluated for their performance, from the pre-purchase search to the post-purchase interactions and the value delivered at each stage. This revolution has brought the philosophy of customer experience to the centre of marketing and retail strategies.

Over time, research has examined the evolution in the bases for competitive differentiation. Palmer (2010) asserted that there has been an intensive evolution in differentiation strategies between companies over a period of time. During the 1950s and 1960s, firms used tangible product qualities to gain a competitive advantage. As development of tangible bases for differentiation reached a standstill, the focus in the 1970s shifted to services. In turn, services, which began as a differentiator, eventually became generic, and from the 1980s, the quality of ongoing relationships became a new differentiator. Palmer (2010) then posed the question of what would happen if relationships themselves became generic, and all companies operating in a product area and targeting similar groups of customers followed similar patterns of relationship development. This led to the construct of experience being proposed, which could be the differentiator in the current competitive scenario. Schmitt (2003) was amongst the earliest scholars to formalise Customer Experience Management as a strategic, firm-level approach to designing and managing customer experiences. Edvardsson et al. (2007) discussed the role of emotions in a service setting and concluded that service quality research focuses on cognitive dimensions and quality factors linked to service episodes and critical incidents. Researchers (Hirschman & Holbrook, 1982; Pine II & Gilmore, 1998) argue that there is a need

to discuss the service experience through the lens of the customer and go beyond a purely cognitive assessment.

Figure 1.1: Evolution of Customer-Centric Models



Source: AlHarbi et al. (2016)

AlHarbi et al. (2016) discussed a model (Figure 1.1) showcasing the chronological evolution of customer interaction approaches. Through the model, it is explicitly clear how the focus of businesses evolved from being product-centric to customer-centric and what the strategies of firms should be that aim to achieve sustainability and prosperity in the long run. They contended that Customer Relationship Management (CRM) and Customer Experience Management (CEM) operate in a complementary manner. While CRM emphasises the systematic management of customer data, CEM goes beyond the boundaries of CRM by focusing on the management of customers' experiences across the organisation based on the CRM data.

Academicians and Practitioners have begun to agree that we no longer live in a product or service-dominated economy but in an "experience economy" which will be the key to sustaining in this competitive marketing environment. Pine II & Gilmore (2017) liken each business to a theatrical stage, the offering to a theatrical play, and the customer to a guest in the theatre. They critically laid out a distinction between services and experiences (Table 1.1).

Table 1.1: Distinction between Services and Experiences

	Services	**Experiences**
Economic Function	Deliver	Stage
Nature of Offering	Intangible	Memorable
Key attribute	Customised	Personal
Method of Supply	Delivered on demand	Revealed over a duration

Source: Pine II & Gilmore (2017)

Meyer & Schwager (2007) argue that CRM captures what a company knows about a particular customer—such as the customer's history of service requests, product returns, and inquiries—, whereas customer experience data captures customers' subjective perceptions and evaluations of an organisation. The concepts of Total Quality Management, Service Quality, and Customer Relationship Management cannot be undermined in business, but at the same time cannot be used in isolation to measure customer outcomes. Therefore, research in retailing posited the need for a new construct that wholly measured the experience of customers. In this context, Customer Experience Management is viewed as a retailer's strategy to design and manage customer interactions to create value both to the customer and the firm. Unlike Customer Relationship Management, which is rooted in recorded customer histories, Customer Experience Management focuses on the customers' current experience during their interactions with the retailer (Verhoef et al., 2009).

Retailers intending to be sustainable have to differentiate themselves from the competitors by offering customers a positively differentiated shopping experience throughout their journey that will keep bringing customers back for more. Customer experience leads to customer satisfaction, which in turn acts as an antecedent of brand loyalty, customer retention, market growth and the overall profitability of the organisation. In the changing scenario from product-centric to customer-centric approaches, managerial attention has shifted towards their customers and more deliberately towards their experiences. As consumers use varied platforms to voice their expectations, evaluations and grievances, customer experience has become a significant and critical focus area among marketing practitioners and academia, considering its role in shaping the reputation and long-term survival of businesses (Siqueira et al., 2020). The goal of customer experience management is to move customers from satisfied to loyal and then from loyal to advocates. Kriss (2014) used data collected on the experience and revenue from two global businesses and found that not only was it possible to quantify the impact of the customer experience, but the effects were significant. The study analysed the effects of other drivers besides customer experience on two outcomes: customer feedback and future spending by individual customers. It was found that after taking into account other factors that drove repeat purchases or increased retention rates, customers with the best past experiences spent 140% more compared to those with sub-standard past experiences. Hence, retailers have to be focused on creating a new integrated customer experience that depends on satisfying customer expectations (Kazancoglu & Aydin, 2018).

1.1.1 Customer Experience

Customer experience involves understanding the customer's cognitive and sensorial evaluation of their shopping experience. Lemon & Verhoef (2016) argue that customer experience could be viewed as a phenomenon encompassing customers' cognitive, emotional, social, sensory and behavioural responses to the organisation's offerings over time, including pre- and post-consumption. Meyer & Schwager (2007) define customer experience as "the internal and subjective response customers have to any contact (direct or indirect) with a company. Direct contact occurs in the course of purchase, use, and service and is usually initiated by the customer. Indirect contact most often involves unplanned encounters with representatives of a company's products, services or brands and takes the form of word-of-mouth recommendations or criticisms, advertising, news reports, reviews and so forth". Verhoef et al. (2009) explain customer experience as the overall experience the customer has with the retailer, based on all interactions and thoughts about the business. Customer Experience could be defined as a "set of interactions between a customer and a product, a brand, a service, a company or part of its organisation, which provokes a reaction as a result of an ordinary or extraordinary experience" (Walls et al., 2011). Pine II & Gilmore (1998) define customer experience as "distinct economic offerings that are as different from services as services are from goods, and successful experiences are those that the customer finds unique, memorable and sustainable over time, would want to repeat and build upon, and enthusiastically promote via word of mouth".

1.1.2 Omnichannel Retailing

Having examined the concept of customer experience, the question that arises is how retailers can develop positive experiences for their customers. Retailing has evolved and taken a multi-dimensional form with the advent of technology-driven retail. The brick-and-mortar retailers, though with inherent advantages, are at times struggling to compete with large online retailers. At a time when retail firms face tremendous uncertainties and intense competitive pressure to survive in the multichannel marketplace, the capability to identify and leverage the factors that drive customer satisfaction and loyalty across channels could be a key competitive advantage (Hult et al., 2019). As observed by Rigby (2011), digital retailing is no longer limited to online selling alone. It is increasingly developing into an omnichannel model in which retailers are able to connect with customers through many touchpoints, including websites, physical outlets, kiosks, direct mail and catalogues, call centres, social media, mobile devices, gaming consoles,

televisions, connected appliances, home services, and more. The issue that arises is whether online and offline retailers could be integrated so that each could benefit from the strength of the other and have a win-win situation. The answer to this lies in the adoption of an omnichannel strategy.

Retailing is immersed in the most significant revolution of recent decades, and omnichannel retailing is one of the major trends that is transforming the retail sector (Pezzini, 2017). Omnichannel retailing also deserves attention due to the fact that the use of online channels is increasing, which has to be considered from the perspective of brick-and-mortar retailers. Customers expect businesses to deliver the full spectrum of benefits associated with online and offline platforms. On the digital side, they appreciate wider product variety, detailed information, reviews and practical suggestions from other buyers. At the same time, they also value what physical stores offer, such as personal assistance, the ability to see and touch products, and the pleasure of shopping as an experiential activity. Different customer segments value parts of the shopping experience differently, but all are likely to want perfect integration of the digital and the physical (Rigby, 2011). Siqueira et al. (2020) in their study asserted that an active customer experience program and the integration of digital merchandising with physical stores in a truly omnichannel fashion were antecedents of long-term success and proposed that retailers needed to operate in an integrated manner so as to combine the advantages of various channels and provide a complete experience to the customers across channels. Ewerhard et al. (2019) believe that retailers who wish to remain competitive will need to move towards omnichannel retailing. Omnichannel businesses represent an unprecedented opportunity for retailers to leverage synergies between both channels in synchronising their interactions with consumers across multiple touch points (Brynjolfsson et al., 2013).

Mosquera et al. (2018) define an omnichannel store as one that blends the advantages of physical stores (i.e. the ability for consumers to see, feel, touch and try the product) with those of the online world (i.e. a greater product offering and 24/7 availability and information). An omnichannel strategy integrates all actions, including buying online through various technological developments such as mobile applications, and picking up in store; buying from an online store but exchanging at a physical store; and selecting from an online store while reserving or having delivery to a physical store (Verhoef et al., 2015). Cunnane (2012) define omnichannel retailing as “a set of integrated processes and decisions that support a unified view of a brand from a product purchase, return, and exchange standpoint, irrespective of the channel

(in-store, online, mobile, call centre, or social)". Rigby (2011) defined omnichannel as "an integrated sales experience that melds the advantages of physical stores with the information-rich experience of online shopping". Shen et al. (2018) defined omnichannel as "a unified approach that manages channels as intermingled touch points to allow consumers to have a seamless experience within an ecosystem."

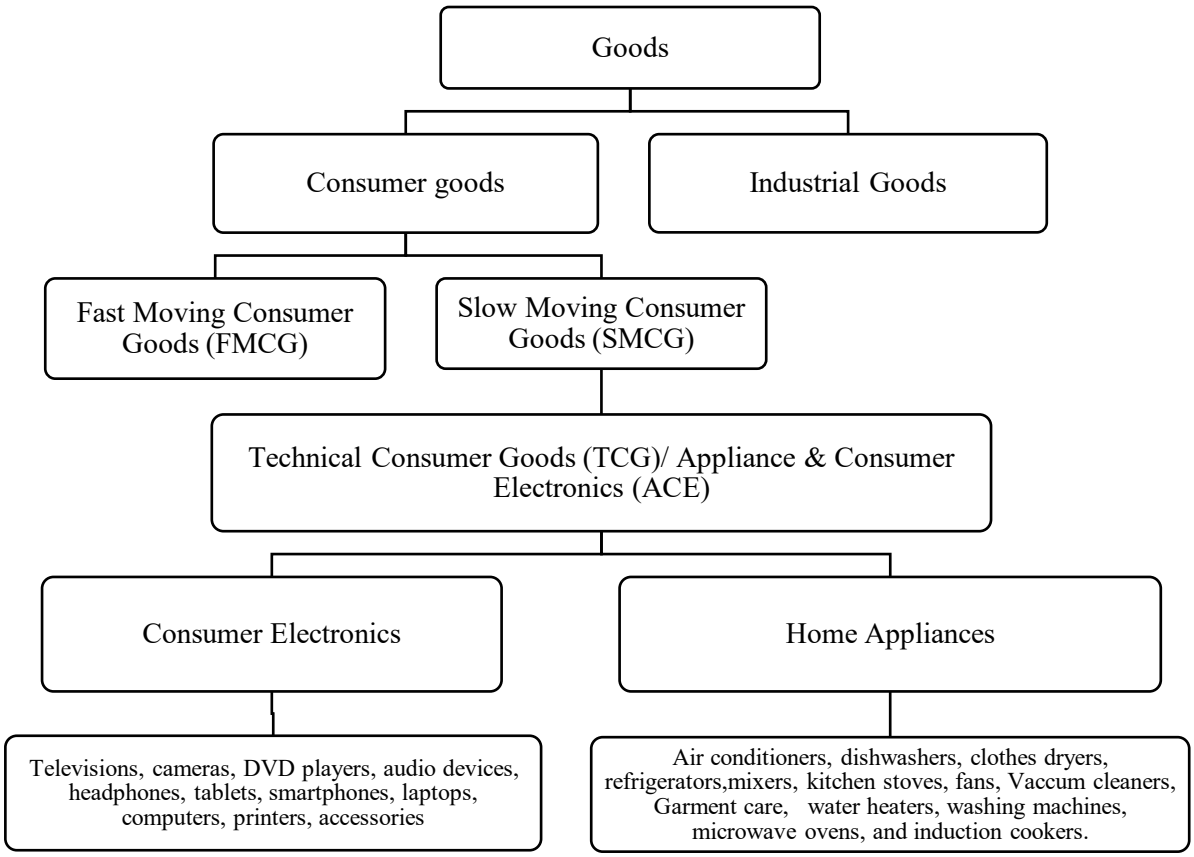
1.1.3 Omnichannel Customer Experience (OCCE)

In an omnichannel framework, customer experience is enhanced by giving customers the flexibility to initiate and complete the buying process on their own terms and at their convenience. In an omnichannel environment, channels are used seamlessly and interchangeably during the search and purchase process, and it is difficult, if not virtually impossible, for retailers to control the use (Neslin et al., 2014; Verhoef et al., 2015). Omnichannel presents the retailer with the opportunity to make the experience so smooth that the customer wants to keep coming back (Cook, 2014). Changing lifestyles mean that today's customers want to undertake the buying process at a time and place that suits their own needs, using the technology that they have in their hand or in front of them. From an information perspective, a customer should have access to the entire product variety, whether they are online or at the store. Such an omnichannel structure is likely to offer great value to the customer while reducing the cost of fulfilment (Chopra, 2016). Instead of competing against each other, online and brick-and-mortar stores could function in an integrated manner so as to capitalise on the strengths of each other. Herhausen et al. (2015) provide evidence that online-offline integration does not result in channel cannibalisation and has no negative effects on the physical store. They also asserted that channel integration diverted customers who would otherwise purchase from other, non-integrated online stores to an integrated internet store. Both academia and management have come to realise that the overall experience quality is one of the top elements that affect customers' shopping intention, which in turn influences omnichannel business (Cunnane, 2012). As such, shifting to an omnichannel strategy commits a brand to a process of optimising customer experience and redesigning channels and touch points from this perspective (Picot-Coupey et al., 2016). In this study, omnichannel customer experience is conceptualised as a phenomenon encompassing customers' cognitive, emotional, behavioural, sensorial and social responses (Lemon & Verhoef, 2016) in a framework that manages channels as intermingled touch points to allow consumers to have a seamless experience pre- and post-consumption (Shen et al., 2018).

1.1.4 Technical Consumer Goods Sector

The retail industry is dominated by two key sectors---goods and services. Goods could take the form of consumer goods and industrial goods. A further categorisation of consumer goods would be Slow-Moving Consumer Goods (SMCG) and Fast-Moving Consumer Goods (FMCG) (Ewerhard et al., 2019). The behaviour of customers across FMCG and SMCG varies to a great extent as FMCG entails more spontaneous decisions due to the low values of products, regular purchase of the same, whereas the SMCG sector entails more expensive products, showcasing high involvement behaviour (Nordfalt, 2005; Szopiński et al., 2019).

Figure 1.2: Categorisation of Goods



Source: Author's Compilation

The present study focuses on a sector in the SMCG segment, which is the Technical Consumer Goods Sector (International TCG Retail Summit Smart Report, 2018). Technical Consumer Goods (TCGs) include product lines such as home appliances and consumer electronics. The TCG sector may also be referred to as the 'Appliances and Consumer Electronics (ACE)' sector (Future of Consumer Durables and Electronics in India: The Changing Landscape, 2018). These

are usually expensive products which customers do not purchase very often, and therefore purchasing an inappropriate model usually entails considerable financial losses for the customer as well as dissatisfaction because of one's varying levels of involvement in the decision-making process, to the extent that a particular product is important for the customer.

With the growth of e-commerce channels, the TCG sector is revisiting the overall channel mix and spending on the same (Future of Consumer Durables and Electronics in India: The Changing Landscape, 2018). The brick-and-mortar stores face heavy competition from online players in this sector, especially during the festive season, when online players lure customers by offering deep discounts and a wide variety. This could be avoided if online and offline retailers integrate to cash in on the strengths of the other.

This study empirically determines the key antecedents and outcomes of omnichannel customer experience (OCCE) within the technical consumer goods (TCG) sector, which includes high involvement products consisting of consumer electronics and home appliances. Given the infrequent nature and high cost of purchase, these products are characterised by decisions that are marked by significant involvement and risk, making the overall shopping experience a critical precursor to satisfaction and loyalty (Nordfalt, 2005; Szopiński et al., 2019). The emergence of electronic commerce has transformed the retail environment for TCG products, compelling firms to reconsider the role of physical outlets and determine how resources should be distributed across offline and online channels (Future of Consumer Durables and Electronics in India: The Changing Landscape, 2018). Additionally, the study also examines the variations in antecedents across various demographic groups, providing deeper insights to brands/retailers building and implementing omnichannel frameworks. Further, the study establishes the relationship between the antecedents and each of the dimensions of OCCE. Besides, the study also examines the outcomes of OCCE in terms of satisfaction, repurchase intention, and word-of-mouth intention, and the relationship between them in an omnichannel framework. Lastly, the study develops an OCCE index to measure the experiences of customers in the TCG sector.

1.2 Theoretical Background

The literature on omnichannel customer experience draws upon several theoretical perspectives such as the Service Dominant Logic (SDL), Customer Experience Theory, Technology Acceptance Models (TAM and UTAUT), Expectancy-Confirmation Theory (ECT), and the Stimulus-Organism-Response (SOR) framework. The SDL approach suggested by Vargo &

Lusch (2004) defined value creation as a creative process between organisations and customers, with value emerging through experience rather than basic product transactions. In an omnichannel context, the SDL highlights how various touchpoints, such as physical stores and various online platforms, collectively allow value co-creation to support decision-making. The Customer Experience Theory (Hirschman & Holbrook, 1982; Pine II & Gilmore, 1998; Schmitt, 2009) further extends this logic by conceptualising experience as a multidimensional construct encompassing cognitive, emotional, sensorial, behavioural and social dimensions (Gentile et al., 2007; Lemon & Verhoef, 2016). Since technical consumer goods are high-involvement products, omnichannel frameworks provide integrated experiences that are a result of the convenience of online channels and sensory engagement and personalisation of offline interactions, making these critical antecedents of the quality of customer experiences. The Technology Acceptance model (UTAUT) proposed by Venkatesh et al. (2003) identifies performance expectancy, effort expectancy, social influence and facilitating conditions as important determinants of technology acceptance, with some relationships moderated by demographics such as age, gender, experience and voluntariness of use. Within omnichannel frameworks, acceptance of developments such as augmented reality, interactive kiosks, and product visualisation determines the overall experience evaluations. The Expectancy-Confirmation Theory, which was introduced by Oliver (1980), asserts that satisfaction results from the confirmation or disconfirmation of pre-purchase expectations, where experiences that meet or exceed expectations are bound to lead to higher satisfaction. This is significant for consumers of technical consumer goods who have high expectations of consistency across channels, timely deliveries and prompt post-sale services. Another theoretical perspective incorporated in omnichannel studies is the SOR framework suggested by Russell & Mehrabian (1977) which links the antecedents (Stimuli) to OCCE and satisfaction (Organism) which then drive behavioural responses (Response). In the present study, this framework provides the overarching logic linking antecedent conditions to OCCE, satisfaction and subsequent behavioural outcomes. Its relevance is also evident when examining demographic moderators, since different customer segments may respond differently to similar omnichannel conditions. Together, these theories provide a comprehensive foundation for the study, while the SOR framework provides the broad organising structure for understanding the relationships among the antecedents, OCCE, satisfaction and behavioural outcomes.

1.3 Research Questions

Alvesson & Sandberg (2013) suggested that, from the existing literature, key issues of constructing research questions should be addressed, which leads to more interesting and influential theories in social science. They further added that research questions should be of descriptive, explanatory and prescriptive nature. Good research questions do not only focus on purpose, topic, and defining the domain, but also involve contextual issues, the involvement of various stakeholders, the background of researchers and the field of study (Silverman, 2020). Flick (2014) suggested that formulating research questions means taking into account various things such as the type of approach, method, designs or entire projects. Though Lofland & Lofland, (1984) listed many points on issues of research questions, the key things such as phenomena, causes, process and consequences are taken care of in this research. The following questions have been raised after conducting a literature review and identifying a gap in the existing literature:

1) What are the antecedents of omnichannel customer experience in the technical consumer goods sector?
2) Do demographics moderate the relationship between the antecedents and omnichannel customer experience in the technical consumer goods sector?
3) What is the impact of the antecedents of omnichannel customer experience on each of the dimensions of omnichannel customer experience?
4) Is there a relationship between omnichannel customer experience, customer satisfaction and behavioural outcomes, specifically repurchase intention and word-of-mouth intention, in the technical consumer goods sector?
5) Does customer satisfaction mediate the relationship between omnichannel customer experience and behavioural outcomes, specifically repurchase intention and word-of-mouth intention, in the technical consumer goods sector?

1.4 Research Objectives

Objective 1: To determine the antecedents influencing omnichannel customer experience in the technical consumer goods sector.

Objective 2: To examine the role of select demographics in moderating the relationship between the antecedents and omnichannel customer experience in the technical consumer goods sector.

Objective 3: To analyse the impact of the antecedents on each of the dimensions of omnichannel customer experience in the technical consumer goods sector.

Objective 4: To examine the effect of omnichannel customer experience on customer satisfaction and the effect of customer satisfaction on repurchase intention and word-of-mouth intention in the technical consumer goods sector.

Objective 5: To analyse the mediating relationship of customer satisfaction between omnichannel customer experience and the behavioural outcomes, specifically repurchase intention and word-of-mouth intention, in the technical consumer goods sector.

Objective 6: To develop an omnichannel customer experience index.

1.5 Significance of the study

With the advancement in technology, there has been an evolution in the retail formats. A key challenge facing every retailer is how to build a larger customer base and improve loyalty and retention rates. Organisations have evolved from being product-centric to customer-centric. In the stages of advancing towards being customer-centric, a number of strategies have been adopted by business organisations, such as service quality, customer relationship management, etc. These strategies may have proved successful for a stipulated period, but as customer needs keep evolving, organisations have felt a need to adopt experiential strategies, which have given rise to the concept of customer experience. Based on the existing literature, it is consensual among scholars that, with the commoditisation of products and services, companies have to learn how to design, create, deliver and manage experiences that customers are ready to pay for, in order to obtain corporate reputation, to achieve competitive advantage and differentiate themselves from competitors, to create value and be difficult to imitate (Klaus & Maklan, 2012;

Verhoef et al., 2009). Pine II & Gilmore (2017) opine that the best way for retailers to generate demand is with an experience so engaging that consumers cannot help but spend time with the firm, give their attention, and then purchase merchandise as memorabilia for that experience. Firms are replacing their customer relationship managers with customer experience managers.

In these competitive times, customer channel choice is not restricted to the traditional brick-and-mortar store. Customers have access to multiple channels, and hence each channel competes against the other with an aim to seek a larger customer base. Each channel has its strengths and weaknesses. The most significant change witnessed in the retail space during the last 5 years has been the admission of the fact that both online and offline will coexist, and instead of competing, will collaborate. Within the framework, burning loads of cash for market share is unlikely to work for online retailers; norms for deep discounting are being tightened by the Government, and additionally, they will need continuous investments in the ecosystem for supply chain, warehousing, and logistics, amongst others. In brick-and-mortar retail, occupancy is the highest cost, while for e-commerce, it is the fulfilment cost. The omnichannel strategy (online + offline) is expected to help in optimising inventory holding costs, operating costs, and real estate costs, while increasing brand visibility and consumer base across various regions in the country (‘Emergence of Omnichannel Retail in India’, 2020).

Customers want to engage with the brand irrespective of the channel they use and expect consistent management. They want to be able to buy a product in the online shop, pick it up at a physical store, notify the retailer via their favourite social media platform that in the end they would rather have it shipped to their home, and be able to return it to a physical store because they would prefer a different colour and have determined through the mobile application which stores have it in their size. And they want to do all of this effortlessly, without having to start the purchase process over again each time they switch platforms. For all these reasons, companies need to know who their customers are and what they want, and they should use this information to build a customer experience that leads to loyalty. Integrating the in-store, mobile, social, and web customer data into a single intelligent business system, which is able to identify the best offers and deliver a custom, one-to-one experience, should be the ultimate goal (Mosquera et al., 2017).

The key objective of this study is to determine the antecedents and outcomes of customer experience in an omnichannel setup. This can have significant implications for retailers who are struggling to build loyal customer bases. The research focuses on the key outcomes of

omnichannel experience in the context of customer satisfaction, repurchase intention, and word-of-mouth intention. Retailers can therefore incorporate strategies that can truly achieve a seamless/omnichannel experience for their customers.

1.6 Scope of the study

The research is restricted to the antecedents of customer experience in omnichannel retailing. The study is confined to the technical consumer goods sector, which includes products such as consumer electronics and home appliances. The study also analyses the moderating effect of demographics (gender, age, income, and education) between the antecedents and OCCE. Further, the research determines the relationship between omnichannel experience and outcomes such as customer satisfaction, repurchase intention, and word-of-mouth intention. The respondents for the study are persons who have shopped for technical consumer goods across India. Additionally, the study aims to develop an OCCE index that will assist retailers in measuring the OCCE in the technical consumer goods sector and the index is developed based on the inputs received from senior practitioners in India's technical consumer goods sector.

1.7 Chapterisation Scheme

Chapter 1: Introduction

This chapter provides an overview of the study with a focus on customer experience and omnichannel retailing and establishes the context and rationale for examining omnichannel customer experience in the technical consumer goods sector. It also presents the theoretical foundations, research questions, objectives, significance, scope and chaperisation scheme of the study.

Chapter 2: Review of Literature

This chapter provides a theoretical background to the study. It further outlines the literature on the antecedents researched in the domains of customer experience and omnichannel retailing, moderating effects of demographics in the omnichannel domain, outcomes of omnichannel retailing, and the rationale for developing an omnichannel customer experience index. Moreover, this chapter presents the identification of the research gap, the subsequent research model based on the gap, and the development of hypotheses to empirically test the model.

Chapter 3: Research Methodology

This chapter outlines the research methodology and design of the study with respect to the data collection, sampling design, statistical methods, and software used in the study. Further, this chapter also outlines the measurement scales used in the study, content validity of the scales, results of the pilot study and the development of the final questionnaire.

Chapter 4: Antecedents of Omnichannel Customer Experience

This chapter presents the demographic profile of the respondents, followed by an assessment of the measurement model through tests of reliability, construct validity, multicollinearity, and common method bias. It then presents a detailed analysis of Objective 1, along with the results and a discussion regarding the key antecedents of omnichannel customer experience in the technical consumer goods Sector.

Chapter 5: Moderating effect of demographics

This chapter presents a detailed analysis of Objective 2, which examines the moderating role of demographics, including gender, age, income, and education, on the relationship between antecedents and omnichannel customer experience in the technical consumer goods sector. It further presents the results of the objective with respect to the moderating effect of the stated demographics in the relationship between the key antecedents and omnichannel customer experience.

Chapter 6: Impact of Antecedents of Omnichannel Customer Experience on the dimensions of Omnichannel Customer Experience

For the purpose of this study, omnichannel customer experience has been defined and operationalised in terms of five dimensions. This chapter outlines the analysis of objective 3, which examines the relationship between the antecedents and each of the dimensions of omnichannel customer experience and presents the results of the analysis.

Chapter 7: Outcomes of Omnichannel Customer Experience

This chapter presents a detailed analysis of objectives 4 and 5, which examine the effect of omnichannel customer experience on key outcomes, including customer satisfaction, repurchase intention, and word-of-mouth intention, and further test the mediating effect of customer satisfaction between omnichannel customer experience and the behavioural outcomes and provides the results of the analysis.

Chapter 8: Development of the Omnichannel Customer Experience Index.

The study aims to develop an omnichannel customer experience index to measure customers' experiences within omnichannel frameworks in the technical consumer goods sector. This chapter presents a detailed analysis of Objective 6, which aims to develop the OCCE Index based on inputs received from practitioners in the technical consumer goods sector.

Chapter 9: Findings, Conclusions and Suggestions

This chapter summarises the entire study, along with the findings of the study, and offers concluding remarks for the analysis. It further outlines the contributions of the study, along with managerial implications and suggestions for organisations in the technical consumer goods sector. It also highlights the limitations of the study and suggests the scope for future research.

CHAPTER 2
REVIEW OF LITERATURE

2.1 Introduction

The increasing adoption of omnichannel strategies reiterates a shift from transactional retail to experience-centred approaches, where customer interactions across multiple channels become the key competitive differentiator (Huré et al., 2017). Omnichannel strategies such as seamless channel integration, consistent services, and personalised interactions enable retailers dealing in technical consumer goods to build trust, reduce uncertainty, and enhance overall satisfaction and loyalty. Since technical consumer goods are high-involvement and involve complex decision processes, characterised by frequent comparisons of price, product quality, pre- and post-purchase service delivery, managing the omnichannel customer experience seems like the only way forward. This necessitates empirically studying the antecedents, moderators, mediators, and behavioural outcomes of omnichannel customer experience in the technical consumer goods sector. Accordingly, the following literature review is presented to build the theoretical and empirical foundations for the study. The literature is structured into four sections: antecedents influencing omnichannel customer experience, moderating effects of demographics, outcomes of omnichannel customer experience, and the rationale for developing an omnichannel customer experience index. Moreover, this chapter presents the identification of the research gap, the subsequent research model based on the gap, and the development of hypotheses to empirically test the model.

2.2 Antecedents of customer experience and omnichannel retailing

2.2.1 Experiential and emotional antecedents

Research on omnichannel retail and customer experience has discussed various antecedents that can affect consumer behaviour, satisfaction, and loyalty. Early work on customer experience (Bagdare & Jain, 2013; Klaus & Maklan, 2013; Riaz et al., 2022) highlighted emotional and experiential dimensions such as joy, mood, leisure, and peace of mind, showing their strong

influence on satisfaction, loyalty, and word-of-mouth. The argument made by these studies is that customers not only evaluate what they receive but also how they feel during the process, and these feelings become significant antecedents of behavioural outcomes. In this context, Kamaladevi (2010) undertook an exploratory study to identify macro factors in the retail environment that could deliver a superior customer experience and which resulted in higher customer satisfaction, more frequent shopping visits, larger wallet shares, and higher profits. The study highlighted a comprehensive set of factors such as brand, price, promotion, supply chain management, location, advertising, packaging and labelling, service mix, and atmosphere, suggesting that customer experience is determined by an integrated basket of retail decisions.

Building on this experiential view, research work led to the development of measurement scales. Bagdare & Jain (2013) developed a scale to measure retail customer experience, explained in four dimensions: leisure, joy, distinctive, and mood. Klaus & Maklan (2012) constructed and validated a multiple-item scale for measuring customers' service experience. The scale developed consisted of a total of 19 items in four dimensions identified as product experience, outcome focus, moments-of-truth and peace-of-mind. These dimensions reflected service experience perceptions, and the findings concluded that service experience had a significant impact on customer satisfaction, loyalty and word-of-mouth intentions.

Researchers also extended this experiential work to online environments. Novak et al. (2000) proposed a general structural model of the online customer experience centred on the construct of flow. Their research aimed to understand the factors that make using the web a compelling experience for its users and the key consumer-behaviour outcomes of such a compelling experience. Flow on the web was defined as a cognitive state experienced during online navigation, determined by high levels of skill, control, challenge, arousal, focused attention, interactive speed and telepresence. The results asserted that direct paths to flow from skill, challenge and telepresence were positive and significant. Focused attention did not correspond directly to greater flow, although it corresponded to greater telepresence and time distortion, thereby influencing flow indirectly through these variables. Dabrynin & Zhang (2019) examined the effects of online experience and perceived risk on purchase intention in China. Online customer experience was defined in terms of internet experience, internet shopping duration, online shopping frequency, product preferences, and money-spending. Perceived risk was defined in terms of product risk, financial risk and privacy risk. The findings proved that

there was a strong relationship between purchase intentions and online shopping experience. The results also indicated that privacy and financial risk had no significant effect on purchase intention, though product risk had a negative impact on purchase intentions. Also, online customer experience had a significant and negative impact on perceived risk, indicating that rich experiences reduce perceived risk and strengthen future purchase intentions.

Additional models tested the atmospheric and social interactions in physical retail. Ogruk et al. (2018) examined the impact of the ideal mix of atmospheric factors, such as ambience factors (volume of music, type and strength of aroma, level of lighting), interaction with salespeople, and store display, on the in-store customer experience and shopping behaviour through the mediating effect of customer emotions. The results indicated that customers' positive perception of interactions with sales employees was the main determinant of total customer experience; a proper blend of ambience variables triggered a customer's positive emotional state, leading to an enjoyable, memorable store visit, which resulted in more time and money spent in the store, and more products purchased. The interplay between cognitive and affective states is also evident in online shopping. Rose et al. (2012) developed a model of the relationship between antecedents and outcomes of online customer experience (OCE) within Internet shopping websites. OCE was defined in terms of Cognitive Experiential State (CES) and Affective Experiential State (AES). The findings revealed that CES and AES did not directly influence repurchase intention, but rather customer satisfaction was an important mediator between them. Satisfaction had both a direct and indirect relationship with repurchase intention via trust.

As digital technologies entered retail spaces, the concept of smart customer experience emerged. Roy et al. (2017) identified the constituents of smart customer experience, i.e., customer experience with smart retail technologies such as displays, smart shopping carts, radio frequency identification systems, shopping assistant systems, near-field communication systems, and augmented-reality interactive technology. The dimensions of smart customer experience were relative advantage, perceived enjoyment, perceived control, personalisation, and interactivity. They also modelled the outcomes of smart customer experience and indicated that smart customer experience directly enhanced satisfaction and reduced perceived risk towards smart retail technologies. Customer satisfaction thereby increased behavioural intentions, word-of-mouth intentions, stickiness to the retailer, shopping effectiveness, and customer well-being. Serra-Cantallops et al. (2018) examined the role of positive emotional

experiences in the generation of electronic word-of-mouth (eWOM) and the effect of both variables, together with customer satisfaction and brand reputation, on customer loyalty in the area of hospitality services. The results indicated that positive emotional experiences had a positive effect on satisfaction, eWOM generation and company reputation. Results also prove the mediating effects of customer satisfaction on the relationship between positive emotional experiences and loyalty, but there was no significant effect of customer satisfaction on eWOM intention. Siqueira et al. (2019) examined the nexus of customer experience within a physical store and the resulting customer WOM behaviour intention, in both a traditional and electronic setting, thus promoting a better understanding of the role of experience in one channel and the behavioural response it produces in another. The results showed that there was no clear relationship between the customer experience construct and the consumer sentiment of peace-of-mind and new media influence, unlike previous research (Klaus & Maklan, 2012), which was conducted within a financial services context, thus raising the question of the importance of context in customer evaluation of customer experience. The study concluded that the importance of antecedents may vary depending on the context and suggested that, when given a choice, traditional retail consumers opt for traditional WOM over social WOM to share experiences related to purchase-related outcomes. Overall, these studies imply that emotional states, atmospherics, social interactions, and smart technologies constitute significant antecedents that shape customer experience in physical and virtual environments.

2.2.2 Channel integration as an antecedent of omnichannel experience

As retailing evolved into omnichannel frameworks, focus shifted from experiences within mono-channels to multi-, cross-, and omnichannel experiences. The channel integration dimensions proposed by Oh et al. (2012) such as integrated promotion, integrated transaction information, integrated product and pricing information, integrated information access, integrated order fulfilment, and integrated customer service have shown to have enabled customers to make informed decisions, build trust, and perceive continuity in their shopping journeys (Chen & Chi, 2024; Gao & Fan, 2021; Hua et al., 2025; Lee, 2020; Yang et al., 2024). Buckley & Feldman (2024) analysed the effects of channel integration (integration of promotion information, integration of product and pricing information, integration of transaction information, integration of access to information, integration of customer service, and integration of order fulfilment) on customer experience. Omnichannel Customer Experience was defined in terms of affective, cognitive, physical, relational, and sensorial

experience. The results showed that the integration of pricing and product, transaction information, and order fulfilment significantly impacted the affective and cognitive experience. Furthermore, the integration of promotion affected the relational and sensorial customer experience. The integration of service impacted physical, relational, and affective customer experience, while the integration of access to information affected the physical and sensorial customer experience.

Chen & Chi (2024) applied the cognitive-affective-conative model to investigate the effect of channel integration quality (integrated promotion, integrated product and price, integrated transaction information, integrated information access, integrated order fulfilment and integrated customer service) on perceived fluency and cognitive trust and their subsequent effect on affective trust and omnichannel shopping intention. The findings demonstrated that channel integration quality substantially affects consumers' intrinsic cognition (cognitive trust and perceived fluency), which consequently fosters consumers' affective trust and shopping intentions. Specifically, integrated promotion and transaction information positively affected cognitive trust, while integrated product and price and integrated information access negatively impacted consumer trust. All the dimensions of channel integration quality, except integrated promotion, significantly affected perceived fluency.

In a study by Hua et al. (2025), the authors concluded that consumer perception of channel integration (integrated customer service, integrated information access, integrated order fulfilment, integrated product and price, integrated promotion, integrated transaction information) significantly impacted consumer empowerment, which subsequently influenced trust and satisfaction, ultimately affecting patronage intention. Lee (2020) investigated the impact of omnichannel characteristics (integrated customer service, integrated information access, integrated order fulfilment, integrated product and price, integrated promotion, integrated transaction information) on customer satisfaction and intention to revisit omnichannel. They found that only integrated promotion and integrated information access were significant. Also, the relationship between customer satisfaction and the intention to revisit the omnichannel was positively supported.

Additional work has viewed how integration interacts with cognitive and affective experiences. Mishra et al. (2024) identified the most important factors affecting customer experiences of channel integration (integrated promotion, integrated product and price, integrated transaction information, integrated information access, integrated customer service, and integrated order

fulfilment) and examined how customer experience affected customer value. The findings indicated that the customer drew greater value from integrated promotions, product, and price in the presence of cognitive customer experience, whereas information access was more valuable in the presence of affective customer experience. Similarly, Gao & Fan et al. (2021) investigated the effects of channel integration (integrated promotion, integrated product and price, integrated transaction information, integrated information access, integrated order fulfilment and integrated customer service) on cognitive and affective customer experiences and omnichannel usage intention. Integrated efforts encompassing promotion, product, price, and transaction information were more influential in enhancing the cognitive customer experience than the affective customer experience. Integrated customer service had a weaker effect on the cognitive customer experience than on the affective customer experience. The results also indicated that integrated information access and order fulfilment did not differ significantly in their contributions to cognitive and affective customer experiences. Another study (Yang et al., 2024) examined the impact of omnichannel integration (integrated promotion, integrated product and price, integrated transaction information, integrated information access, integrated order fulfilment and integrated customer service) and digital value on brand trust building through positive and negative psychological perceptions. The findings revealed that customer perception of omnichannel integration and perceived digital value were critical drivers of omnichannel brand trust, with customer empowerment playing a mediating role. Customer perception of omnichannel integration and perceived digital value positively impacted customer empowerment. However, integrated promotion was not significant.

2.2.3 Omnichannel customer experience scale and dimensions

With the rise of omnichannel strategies, researchers began to develop scales for measuring omnichannel customer experiences. Shi et al. (2020) were among the earliest to operationalise OCCE and proposed a scale to measure OCCE with five dimensions – integration, connectivity, consistency, personalisation and flexibility. This scale has subsequently been used by researchers (Akturan & Kuter, 2024; Bahri et al., 2023; Calvo et al., 2023; Jaengprajak & Chaipoopiratana, 2022; Riaz et al., 2024; Salem & Alanadoly, 2024) as predictors of compatibility, trust, and purchase intention, though perceived risk often weakened outcomes. Akturan & Kuter (2024) explored the effects of the omnichannel experience (consistency, connectivity, personalisation, integration and flexibility) on customer commitment and word-

of-mouth (wom) intention within the context of fashion retailing. Consistency and personalisation positively affected customer commitment but did not indicate any direct influence on wom intention. On the other hand, connectivity affected wom intention but not customer commitment. Bahri et al. (2023) investigated how omnichannel experience (connectivity, integration, consistency, flexibility, and personalisation) impacts trust, how trust influences repurchase intention, how omnichannel experience affects repurchase intention, and how omnichannel experience affects repurchase intention when trust is considered as a mediating factor. Omnichannel experience had a positive effect on trust, and trust had a positive effect on repurchase intention. Furthermore, the study revealed that trust played a mediating role between omnichannel experience and repurchase intention.

In another study, Jaengprajak & Chaipoopiratana (2022) empirically proved that there were seven dimensions of omnichannel customer experience, namely consistency, connectivity, personalisation, accessibility, order fulfilment, flexibility, and retailer responsiveness. Riaz et al. (2022) investigated the effectiveness of the omnichannel customer experience (connectivity, integration, consistency, flexibility, and personalisation) and its long-term impact on customer satisfaction and explored the mediating role of customer trust. The study found that all dimensions of the omnichannel customer experience, except for connectivity, positively impacted customer trust. Customer trust was identified as a mediator between the omnichannel experience and customer satisfaction, again excluding the dimension of connectivity. Salem & Alanadoly (2024) found that customer experiences of integration and flexibility positively influenced customer engagement, while experiences of connectivity, consistency, and personalisation did not show significant effects.

2.2.4 Technology acceptance and omnichannel adoption

A complementary body of literature investigates the omnichannel experience through technology acceptance. The Unified Theory of Acceptance and Use of Technology (UTAUT) model has also been researched in omnichannel frameworks (Ha et al., 2024; Hasbullah et al., 2025; Jayasingh et al., 2022; Juaneda-Ayensa et al., 2016; Kaur & Sandhu, 2022; Kazancoglu & Aydin, 2018; Mosquera et al., 2018) with factors like performance expectancy, effort expectancy, habit, facilitating conditions, social influence, hedonic motivation, price value, and personal innovativeness significantly driving adoption and purchase intention, while perceived risk and privacy concerns act as deterrents. Hasbullah et al. (2025) explored the adoption of

sustainable omnichannel grocery technologies (performance expectancy, effort expectancy, facilitating conditions, price value, hedonic motivation, habit) among Generation Z in Malaysia in influencing customer purchase intentions in omnichannel grocery retailing. The study found that performance expectancy and facilitating conditions were the only factors that exhibited a direct and significant correlation with the intention to engage in omnichannel grocery shopping. Jayasingh et al. (2022) identified the determinants (performance expectancy, effort expectancy, social influence, habit, hedonic motivation, facilitating condition, and perceived value) of omnichannel shopping intention for sporting goods. Performance expectancy emerged as the major contributor, followed by hedonic motivation, habit, perceived value, effort expectancy, and social influence of the omnichannel shopping intention. Juaneda-Ayensa et al. (2016) examined the factors (performance expectancy, effort expectancy, social influence, habit, hedonic motivation, facilitating condition, perceived value, personal innovativeness, and perceived security) that influence omnichannel consumers' behaviour through their acceptance of and intention to use new technologies during the shopping process. The results indicated that the key determinants of purchase intention in an omnichannel context were personal innovativeness, effort expectancy, and performance expectancy. Kaur & Sandhu (2022) investigated the factors (performance expectancy, effort expectancy, social influence, habit, hedonic motivation, fashion engagement, facilitating condition, perceived value) that influence purchases of fashion apparel through omnichannel retailing. The strong causal contributors to omnichannel usage included performance expectation, hedonic motivation, habit, fashion engagement, and personal innovativeness. Kazancoglu & Aydin (2018) analysed the purchase intentions of consumers towards omnichannel shopping in the apparel sector by studying the factors that would influence consumers' intentions. The findings revealed that performance expectancy, effort expectancy, facilitating conditions, hedonic motivation, habit, and price value affected purchasing intentions towards omnichannel shopping. The authors additionally proposed six other variables which were perceived trust, situational factors, perceived risk, anxiety, need for interaction and privacy concern which also influenced intentions towards omnichannel shopping. The technology-based studies show that even with strong channel integration and well-designed experiences, customers' willingness to adopt omnichannel platforms is influenced by the consumer perception of ease, enjoyment, trust and security of such platforms.

2.2.5 Retail mix and product-type determinants of omnichannel experience

A further set of studies emphasised retail-mix elements and product characteristics as important antecedents of omnichannel customer experience. Ahmad Mahyadin (2024) studied the factors influencing consumer intention to purchase via omnichannel fashion retail and found that perceived compatibility is the essential factor in consumer intention to purchase via omnichannel fashion retail, followed by perceived value of webrooming and perceived value of showrooming. Perceived risk was negatively correlated with the purchasing intention of omnichannel. Gao & Jiang (2024) found that customer experience would be higher when both channel consistency and channel seamlessness were at a high level than when both were at a low level. Customer experience increased by the combined effect of high (low) channel consistency and low (high) channel seamlessness. Within the retail mix, Hickman et al. (2020) identified the factors (brand familiarity, customisation, perceived value, and technology readiness) that influenced an omnichannel experience (online, in-store and mobile). Brand familiarity had a strong influence on omnichannel (in-store, online and mobile), while perceived value had a negative impact on the mobile experience.

Jeong & Jo (2024) studied the impact of merchandise variety, monetary saving, personal interaction, complaint handling on relative advantage, satisfaction and word of mouth in the omnichannel environment and found that merchandise variety neither significantly enhanced relative advantage nor satisfaction; monetary saving influenced both relative advantage and satisfaction; personal interaction was observed to affect complaint handling and relative advantage; complaint handling had a significant positive effect on consumer satisfaction but not on relative advantage; relative advantage was found to impact both satisfaction and word of mouth. In a similar study, Jo & Bang (2024) identified the determinants such as personal interaction, merchandise variety, crowd perception, perceived ease of use, perceived usefulness, attitude toward online reviews and found that personal interactions and merchandise variety significantly influenced crowd perception. Perceived ease of use was found to significantly affect perceived usefulness, attitude, and satisfaction. Furthermore, both crowd perception and attitudes toward online reviews influenced the overall attitude toward omnichannel.

Technology-enabled retail-mix capabilities also played a role. Kumar & Uma (2019) examined the key technology dimensions (Distinctive Digital Technology Capabilities, Personalised Content and Recommendation Capabilities and Distinctive In-store Technology Capabilities). towards fostering a seamless Omnichannel Retail Experience. It was observed that Personalised

Content and Recommendation Capabilities were significantly and positively associated with Omnichannel Retail Experience, and the other two dimensions did not emerge as significant in influencing Omnichannel Retail Experience. Lee & Lim (2017) examined the relationship between customer experience and customer satisfaction, and customer experience and store attitude by focusing on the mediating effect of Omnichannel shopper type (showroomer & reverse showroomer) among customers of an apparel brand. The study found that customer experience had been stimulated by experiential providers such as product assortment, store environment, promotion and salesperson. It was also found that customer experience positively influenced store attitude and customer satisfaction. Customer satisfaction, in turn, had a positive effect on store attitude. Also, the reverse showroomers greatly influenced the relationship between customer experience and store attitude, whereas it was less in the case of showroomers. Within online components of omnichannel, Marinao-Artiga et al. (2025) proposed a model to illustrate how online shopping intention is influenced by the online shopping experience (cognitive and emotional experiences; cognitive (timely delivery, payment security); emotional (interactive layout, personalised attention) within an omnichannel environment. Online shopping intention was significantly influenced by the interaction between cognitive and emotional experiences, with a higher impact from cognitive experiences. Payment security had a higher impact on cognitive experience as compared to timely delivery. An interactive layout had a higher impact on emotional experience as compared to personalised attention.

Several studies explicitly link channel integration, experience and patronage. Mishra et al. (2021) confirmed that a customer's perceived online-offline channel integration increased their patronage intention directly and through the mediating role of consumer empowerment and satisfaction. Nguyen & Tran (2023) investigated the relationships among showrooming, webrooming, channel integration, omnichannel customer experience, customer satisfaction, and word-of-mouth intention. Webrooming, showrooming and channel integration were the antecedents of the omnichannel customer experience, and its outcomes were customer satisfaction and, word-of-mouth intention. Riaz et al. (2022) investigated the factors (integration, order fulfilment, usability and seamlessness) affecting omnichannel retailing, and determined the effects on the omnichannel customer’s experience. The results showed that omnichannel retailing helps to enhance the customer experience via determinants of omnichannel integration, order fulfilment, usability and seamlessness, which emerged as a

major direct and indirect contributor, followed by omnichannel integration and usability dimensions.

Finally, product type and decision style were recognised as important moderators of omnichannel antecedents. Sharma & Dutta (2025) found that experience-based products, such as clothing, require sensory evaluation, leading customers to prioritise fashion consciousness, hedonistic orientation, and quality consciousness. Customers often engage in online research but also value in-store experiences to assess fit, fabric, and style. In contrast, search products like electronics trigger different decision-making styles, where price and convenience consciousness become more prominent. Customers tend to rely on online research but may prefer in-store purchases for high-involvement products. Sharma et al. (2024) found that in-store employee interactions strongly affected cognitive engagement, while digital interactions predominantly influenced affective engagement. Affective engagement was key for value consciousness, which, along with affective engagement, drove habit development. Singh & Srivastava (2019) concluded that perceived usefulness, perceived risk and perceived self-efficacy were important drivers of online consumer behaviour, and online consumers were more comfortable and confident in using smartphones for fashion purchases rather than for electronics; respondents preferred laptops/desktops while purchasing electronic goods. Tyrväinen et al. (2020) examined the effects of personalisation and hedonic motivation on customer experience and confirmed that personalisation and hedonic motivation had positive relationships with cognitive and emotional customer experience components. Chang & Geng (2022) found that hedonic value was the main demand of omnichannel customers. Specifically, the effect of utilitarian value on attitude was greater for unplanned purchases than for planned purchases, whilst the effects of hedonic and social value had no difference between planned and unplanned purchases.

Overall, literature indicates that the antecedents of omnichannel customer experience span across emotions, atmospherics, channel integration dimensions, and technology acceptance factors.

2.3 Role of demographics in determining omnichannel experiences

2.3.1 Gender

The research in omnichannel and customer experience domains shows that demographic variables significantly shape how customers perceive and adopt omnichannel strategies. Gender emerged as a strong moderator in a study conducted by Alesanco-Llorente et al. (2023) among Spanish Consumers. The significant antecedents for omnichannel acceptance among men were performance expectancy and effort expectancy, while for women it was performance expectancy and social influence. This suggests that male consumers may respond more strongly to functional and efficiency-related factors, while female consumers may additionally be influenced by interpersonal and normative cues. Ameen et al. (2020) examined gender differences among millennials in omnichannel experience in modern shopping malls, combining personal, physical and virtual encounters in a cross-cultural context (UK and UAE). They found that males were more attentive to peer interaction on social platforms, service excellence, convenience, diversity and personalisation in shopping malls, while female shoppers valued aesthetics and privacy. These results collectively imply that the same omnichannel environment may be interpreted differently depending on gender-based preferences and expectations. However, the empirical evidence is not uniformly conclusive. Jeong & Jo (2024) studied the impact of antecedents (merchandise variety, monetary saving, personal interaction, complaint handling) on relative advantage, satisfaction and word of mouth in the omnichannel environment and reported that gender did not moderate any of the examined relationships, indicating that in some settings, gender may not meaningfully alter the way consumers respond to omnichannel stimuli. Similarly, Mosquera et al. (2018) analysed the relationship between the intention to use different interactive technologies in a clothing store and its effects on purchase intention; however, no significant differences were found between the two genders. These findings indicate that the influence of gender cannot be assumed to be universal and may depend on the product category, retail format, and the particular antecedents under consideration. Other studies, however, continue to demonstrate the situational importance of gender. Joshi et al. (2024) found that gender moderated the relationship between key adoption determinants of two omnichannel strategies - buy-online-pickup-in-store and buy-in-store-ship-direct, suggesting that channel fulfilment preferences may vary between male and

female consumers. In the electronics context, Szopiński et al. (2019) verified whether gender influenced the way a consumer purchased electronics during the stages of information search and purchase. It was found that women sought information on the internet and then bought equipment in stationary stores, while men looked for information about the equipment on the internet and bought it online. This is particularly relevant to the technical consumer goods sector, where information search and purchase channels may differ according to perceived risk, confidence, and convenience. Likewise, in a study conducted by Kalayci et al. (2024), male participants chose brands' D2C webstores more often than female participants in the case of the category characteristic assortment depth. Moliner & Tortosa-Edo (2023) analysed how omnichannel consumer journey design influenced the online customer experience and e-satisfaction in consumers' multirooming behaviour (searching for information in online and offline channels and purchasing the product online). They found that females had higher levels of e-satisfaction. Hence, gender may or may not moderate relationships between independent and dependent constructs and the moderation may be situational or context-specific. Hence, these studies suggest that gender may moderate relationships between independent and dependent constructs in omnichannel frameworks, but such moderation is not consistent across all contexts. Rather, the evidence indicates that gender effects are contingent on the nature of the product, the shopping task, the retail environment, and the specific constructs being examined. Thus, gender should be treated as a potentially important, yet context-specific, moderator in omnichannel customer experience research.

2.3.2 Age

Age has also emerged as a relevant demographic variable in omnichannel research, although its moderating role appears to vary across contexts, product categories, and outcomes. Basu & Sondhi (2021) examined the prevalent triggers that motivate a premium brand apparel purchase in an online vs offline retail format, and found that age did not moderate the examined relationships in the online/offline contexts, suggesting that age may not always be a decisive factor in explaining omnichannel behaviour. Johnson & Ramirez (2020) identified the role of showrooming in decreasing risk in an online shopping context using millennial generational cohorts as moderators in exploring the differences between the dimensions of perceived risk and online shopping intention. Their study found that Younger Millennials (18–23 years) experienced the highest level of financial risk and time/convenience risk, whereas Middle Millennials (24–30 years) experienced the highest level of product risk. The results revealed

significant differences between Younger Millennials and Older Millennials and Middle Millennials and Older Millennials in relation to financial risk. In relation to time/convenience risk, younger millennials were significantly different from both middle millennials and older millennials. These findings indicate that age influences not only the level of perceived risk but also the nature of the risk that consumers associate with omnichannel shopping. While Jeong & Jo (2024) studied the impact of merchandise variety, monetary saving, personal interaction, and complaint handling on relative advantage, satisfaction and word of mouth and found that age had an impact on word of mouth. Joshi et al. (2024) found that age moderated the relationship between key adoption determinants of two omnichannel strategies: buy-online-pickup-in-store and buy-in-store-ship-direct. Collectively, these studies indicate that age may function as a significant moderator in omnichannel frameworks, although its influence is not consistent across all relationships.

2.3.3 Income

Income has been examined as another demographic variable that may shape consumer behaviour in omnichannel environments. Basu & Sondhi (2021) examined the prevalent triggers that motivate a premium brand apparel purchase in an online vs offline retail format, and found that income moderated the examined relationships in the online/offline contexts, and 90% of the consumers of premium brands were the younger millennials (24–29 years). In contrast, Jeong & Jo (2024) studied the impact of merchandise variety, monetary saving, personal interaction, and complaint handling on relative advantage, satisfaction and word of mouth and found that income did not show any impact in any of the relationships. Similarly, income did not moderate the relationship between key adoption determinants of two omnichannel strategies: buy-online-pickup-in-store and buy-in-store-ship-direct (Joshi et al., 2024). In a study conducted by Kalayci et al. (2024), household income was positively related to channel choice as participants with higher incomes were inclined toward brands' Direct-To-Customer webstores. These findings suggest that income may influence omnichannel behaviour in certain contexts, particularly where channel choice and premium positioning are involved.

2.4 Outcomes of customer experience and omnichannel retailing

Research in omnichannel retailing consistently shows that a well-designed omnichannel customer experience produces favourable outcomes in the form of customer satisfaction, trust, engagement, loyalty, repurchase intention, and word-of-mouth behaviour. Omnichannel retailing enhances these outcomes by enabling effective channel integration, seamless transitions, personalisation, and consistency across platforms. In particular, integration of promotion, product and pricing information, transaction data, order fulfilment, information access, and customer service are found to significantly improve affective, cognitive, and relational experiences, thereby increasing loyalty, repurchase intentions, stickiness, and willingness to pay a premium (Buckley & Feldman, 2024; Chen & Chi, 2024; Mishra et al., 2024; Yang et al., 2024). Similarly, Al-Adamat et al. (2024) found that strong integration across sales channels, fast delivery options, simple interfaces, and seamless transitions significantly enhance consumer decision-making in omnichannel frameworks.

Beyond decision-making, several studies highlight that omnichannel integration contributes significantly to satisfaction and customer retention. Frasquet & Miquel (2017) revealed that Multichannel Integration positively affected both offline and online loyalty directly and through the partial mediation of satisfaction. Likewise, Lee (2020) found that the relationship between customer satisfaction and the intention to revisit omnichannel was supported positively while Nguyen & Tran (2023) found that omnichannel customer experience had three dominant outcomes - customer satisfaction, customer-brand engagement and word-of-mouth intention. However, the pathway from omnichannel experience to behavioural outcomes is not always straightforward. Choubey & Gautam (2024) found a positive association between omnichannel and both customer retention and customer engagement. Customer satisfaction did not mediate the omnichannel retailing – customer retention relationship. Customer engagement emerged as a significant mediator between omnichannel retailing and customer retention.

Another important stream of research emphasises the role of empowerment, trust, and perceived risk in shaping post-experience outcomes. Zhang et al. (2018) asserted that consumer perceptions of channel integration had a positive relationship with consumer empowerment, which had a significant effect on trust and satisfaction, and both trust and satisfaction had a strong positive effect on patronage intention. Hua et al. (2025) indicated that channel integration

perception significantly impacted consumer empowerment, which subsequently influenced trust and satisfaction, ultimately affecting patronage intention. Mishra et al. (2021) confirmed that customers' perceived online-offline channel integration increases their patronage intention directly and through the mediating role of consumer empowerment and satisfaction. Roy et al. (2017) modelled the outcomes of smart customer experience and indicated that smart customer experience directly enhanced satisfaction and reduced perceived risk towards smart retail technologies. Customer satisfaction thereby increased behavioural intentions, word-of-mouth intentions, stickiness to the retailer, shopping effectiveness, and customer well-being. Serra-Cantallops et al. (2018) indicated that positive emotional experiences had a positive effect on satisfaction, eWOM generation and company reputation. Their results also proved the mediating effects of customer satisfaction on the relationship between positive emotional experiences and loyalty, but there was no significant effect of customer satisfaction on eWOM intention. These findings collectively indicate that omnichannel experiences are valuable not only because they improve the shopping journey, but also because they create psychological states that encourage continued patronage.

Repurchase intention has been evaluated by multiple researchers (Bahri et al., 2023; Lee et al., 2019; Li et al., 2025; Rahman et al., 2025; Rose et al., 2012) as an outcome of customer experience and omnichannel retailing. Seamlessness, consistency, and connectivity are shown to reduce perceived risks and strengthen engagement, though excessive service breadth may sometimes reduce engagement due to complexity (Gao & Jiang, 2024; Sinha et al., 2025). Personalisation and hedonic motivations boost loyalty and word-of-mouth (Jeong & Jo, 2024; Kim & Kim, 2017; Li & Chang, 2024; Natarajan & Veera, 2023; Rodríguez-Torrico et al., 2021; Tyrväinen et al., 2020), while empowerment through integrated services enhances trust and satisfaction, driving patronage (Chen et al., 2024; Hua et al., 2025; Mishra et al., 2021; Nguyen, 2021; Zhang et al., 2018). Li et al. (2025) explored customer post-adoption decisions in omnichannel retailing, specifically focusing on omnichannel stickiness and repurchase intention and found 74% of the variance in customer stickiness and 69% in repurchase intention was explained by the antecedents of omnichannel synergy. Rahman et al. (2025) indicated a positive relationship between omnichannel customer experience and direct customer engagement (repurchase intentions), which varied depending on the stage of the customer-retailer relationship. Additionally, customer traits such as novelty-seeking and time-consciousness were found to strengthen the positive relationship between omnichannel

customer experience and indirect measures of customer engagement (influence, feedback, and referral intentions). Tyrväinen et al. (2020) concluded that cognitive and emotional customer experience components were positively linked to loyalty (word of mouth, repeat purchase intentions). Lee et al. (2019) stated that channel integration quality positively influenced customer engagement, which in turn led to higher levels of repurchase intention and positive word-of-mouth. Kim & Kim (2017) examined the key triggers of customer negative emotions inclusionary need threat and power need threat were triggers for customer rage in service recovery failure which was positively related to outcomes such as market aggression, vindictive complaining, negative word of mouth and support seeking negative word of mouth. Rodríguez-Torrico et al. (2021) examined how a seamless omnichannel environment (consistency, freedom in channel selection, synchronisation) could contribute to a more optimal shopping experience (flow state) and the subsequent impact on the likelihood of generating mixed (positive and negative) word of mouth (wom). The study confirmed a positive direct effect of a seamless environment on consumers' flow state and a positive (negative) direct impact of flow on the likelihood of generating positive (negative) wom.

The literature suggests that the outcomes of omnichannel customer experience extend well beyond immediate satisfaction. A positive omnichannel experience can strengthen trust, engagement, empowerment, loyalty, stickiness, repurchase intention, and both traditional and electronic word-of-mouth. These studies confirm that omnichannel customer experience is a strategically important construct because it influences not only how customers evaluate the retailer, but also whether they continue purchasing from it and recommend it to others.

2.5 Analytical Hierarchy Process in Omnichannel Retailing

The dimensions of OCCE are complex and cover numerous facets that jointly enhance the overall customer journey (Rahman et al., 2022), which makes their evaluation both conceptually important and practically challenging. Past studies have measured OCCE with varied dimensions across diverse contexts and sectors. Kumar & Uma (2019) identified the dimensions fostering omnichannel retail experience as “distinctive digital technology capabilities”, “personalised content and recommendation capabilities”, and “distinctive in-store technology capabilities”, of which only “personalised content and recommendation capabilities” significantly influence the omnichannel retail experience. In a cross-cultural study conducted by Ameen et al. (2020), the omnichannel experience dimensions varied across

gender, with factors such as service excellence, personalisation, and peer interaction influencing male shoppers while privacy and aesthetics influencing female shoppers. Omnichannel elements such as integration, individualisation, and interaction are generally helpful in retaining customers, and omnichannel elements influence sensory, affective, intellectual, and behavioural customer experiences (Yin et al., 2022).

Similarly, Rahman et al. (2022) proposed a perceived OCCE scale with dimensions such as "social communications", "value", "personalisation", "customer service", "consistency of both product availability and prices across channels", "information safety", "delivery", "product returns", and "loyalty programs". Additionally, the dimensions of OCCE include functional, emotional, and seamless experiences, which influence channel choice depending on the product type and shopping stage. For instance, functional and seamless experiences positively affect omnichannel usage for utilitarian products, while emotional and seamless experiences do so for hedonic products. Frasquet-Deltoro et al. (2021) conceptualised OCCE to include behavioural, pragmatic, sensory, social, affective, lifestyle, intellectual and relational dimensions. Likewise, a scale developed by Gahler et al. (2023) measured OCCE in terms of affective, cognitive, physical, relational, symbolic and sensorial aspects.

Among the available scales, Shi et al. (2020) proposed and developed one of the most widely used scales and conceptualised OCCE in terms of consistency, personalisation, connectivity, flexibility, and integration. Subsequently, many researchers have employed the scale suggested by Shi et al. (2020) and found different associations between the dimensions and behavioural outcomes (Bahri et al., 2023; Calvo et al., 2023). Akturan & Kuter (2024) empirically tested the OCCE scale proposed by Shi et al. (2020) and found that only connectivity, consistency and personalisation enhance customer commitment. While Salem & Alanadoly (2024) concluded that customer experiences of integration and flexibility positively influenced customer engagement, while experiences of connectivity, consistency, and personalisation did not show significant effects. In a study undertaken by Riaz et al. (2024), all dimensions of the omnichannel customer experience, except for connectivity, positively impacted customer trust. This variation indicates that the importance of OCCE dimensions is likely to depend on the sector, customer profile, and purchase context.

Conceptually, each of these five dimensions describe a distinct aspect of omnichannel customer experience. Integration involves aligning information systems and operations across channels and touchpoints to maintain a unified brand experience (Shi et al., 2020). Saghiri et al. (2017)

assert that channel integration is the key difference between multi-channel and omnichannel retail, as it enables retailers to maintain a unified record of each customer across channels. Personalisation involves customising product and service offerings (Rooderkerk & Kök, 2019). Personalisation can help reduce the uncertainty faced by customers in an omnichannel framework by assisting them in making more informed purchases. Connectivity involves linking the information available across channels to give a unified image of the brand (Shi et al., 2020). It refers to the process by which customers can check for product availability across the channels and reveals how well the channels are interlinked. Consistency is concerned with providing customers with the same product, same information, and same service across channels (Shi et al., 2020), and inconsistency in messaging, pricing, promotions, or experiences causes customer confusion, leading to low customer satisfaction and reduced spending (Cunnane, 2012). Kazancoglu & Aydin (2018) assert that the consistency of product quality and pricing strategy across channels reduces information asymmetry and perceived risk, and hence, omnichannel systems demand the development of technical infrastructure to ensure consistency in data maintained across channels. Flexibility refers to the extent to which customers are provided with flexible options as they migrate from one channel to another. As Kazancoglu & Aydin (2018) noted, customers might be anxious about product availability, payment risks, and delivery processes when they switch across channels, and therefore, omnichannel retailers need to offer flexible options to their customers across channels. This enhances the shopping experience due to the convenience offered to the customers. Thus, the dimensions of OCCE are diverse and require a strategic approach to ensure a seamless, consistent, and personalised customer journey across all channels.

In this regard, the use of AHP and multi-criteria decision approaches in omnichannel studies becomes pertinent. A study conducted by Kim et al. (2019) employed the AHP to prioritise the factors influencing omnichannel use among Korean and Japanese customers and concluded that the three factors – multiple touch points, payment options and superior customer value were prioritised differently by customers across the two countries. Similarly, Sharma et al. (2019), while using the AHP method, determined that price inconsistency and lack of centralised product assortment were the top two barriers preventing young consumers from engaging with omnichannel platforms. In another study (Mishra et al., 2023) using AHP, six barriers (inventory, transportation, pricing, information, channel relationship, network related) and twenty-six sub-barriers to omnichannel adoption were identified and prioritised, with lack of

information sharing and unified infrastructure (information related) and geographical variations in the supply chain network (network related) emerging as the major barriers.

These studies show that AHP and similar multi-criteria decision-making approaches can be effectively used to prioritise omnichannel dimensions and barriers in a structured manner. In the present study, this becomes particularly relevant because the five dimensions of OCCE do not contribute equally to the overall customer experience, and their systematic prioritisation helps in developing a practical and sector-specific OCCE index for the technical consumer goods sector.

2.6 Research Gap

Based on the review conducted, the phenomenon of customer experience has been widely researched in single-channel and cross-channel retail formats (Barari et al., 2020; Cao & Li, 2015; Dabrynin & Zhang, 2019; Gunawan et al., 2023; Kim & Kim, 2017; Li et al., 2018; Maggioni et al., 2020; Rose et al., 2012; Szopiński et al., 2019). With regard to the review conducted on omnichannel retailing, key areas that have been researched are purchase intentions towards omnichannel frameworks (Ahmad Mahyadin, 2024; Jaengprajak & Chaipoopiratana, 2022; Jayasingh et al., 2022; Juaneda-Ayensa et al., 2016; Kazancoglu & Aydin, 2018; Liu & Zheng, 2023; Xu & Jackson, 2019) and consumer behaviour (Agarwal & Singh, 2018; Johnson & Ramirez, 2020; Juaneda-Ayensa et al., 2016; Kang, 2018; Lazaris et al., 2014; Natarajan & Veera Raghavan, 2023) in omnichannel frameworks. The experiential nature of omnichannel shopping remains relatively unexplored, especially relating to the antecedents of OCCE. This study aims to analyse the experiences of customers in omnichannel frameworks and the antecedents of such experiences. Empirical studies that have investigated the relationship between customer experience and antecedent variables in omnichannel retail environments are scarce. From the research survey conducted, it can be concluded that most of the studies carried out so far have been in the grocery (Gunawan et al., 2023; Hasbullah et al., 2025; Yen, 2023) and fashion (Ahmad Mahyadin, 2024; Akturan & Kuter, 2024; Chen & Chi, 2024; Fares et al., 2023; Jaengprajak & Chaipoopiratana, 2022; Kang, 2018; Kaur & Sandhu, 2022; Lee & Jung, 2020; Riaz et al., 2022; Robertson & Kopot, 2023; Salem & Alanadoly, 2024) retail industries, and this calls for more omnichannel retailing-related research in other retail sectors. The present study aims to focus on the Technical Consumer Goods Sector. This sector comprises primarily of consumer electronics and household appliances. The key

characteristics of these goods are that they are expensive and are not purchased very often by an individual. Hence, the buying decision-making process is lengthy, and a lot of research is done by the consumer before making a final choice. With the development of numerous retail channels, the consumer has the option of seeking information during the decision-making process across these channels. The consumer may visit the offline retail store to seek first-hand information about the product and assistance from the retailer in decision-making. While making the final decision to purchase, the consumer may purchase it from the channel which offers it at the lowest cost; in most cases, this could be the online platform. In such a situation, the offline retailers lose out on business. To a certain extent, this problem can be eliminated by incorporating an omnichannel strategy which offers consistency in information, promotional offers and pricing across all channels.

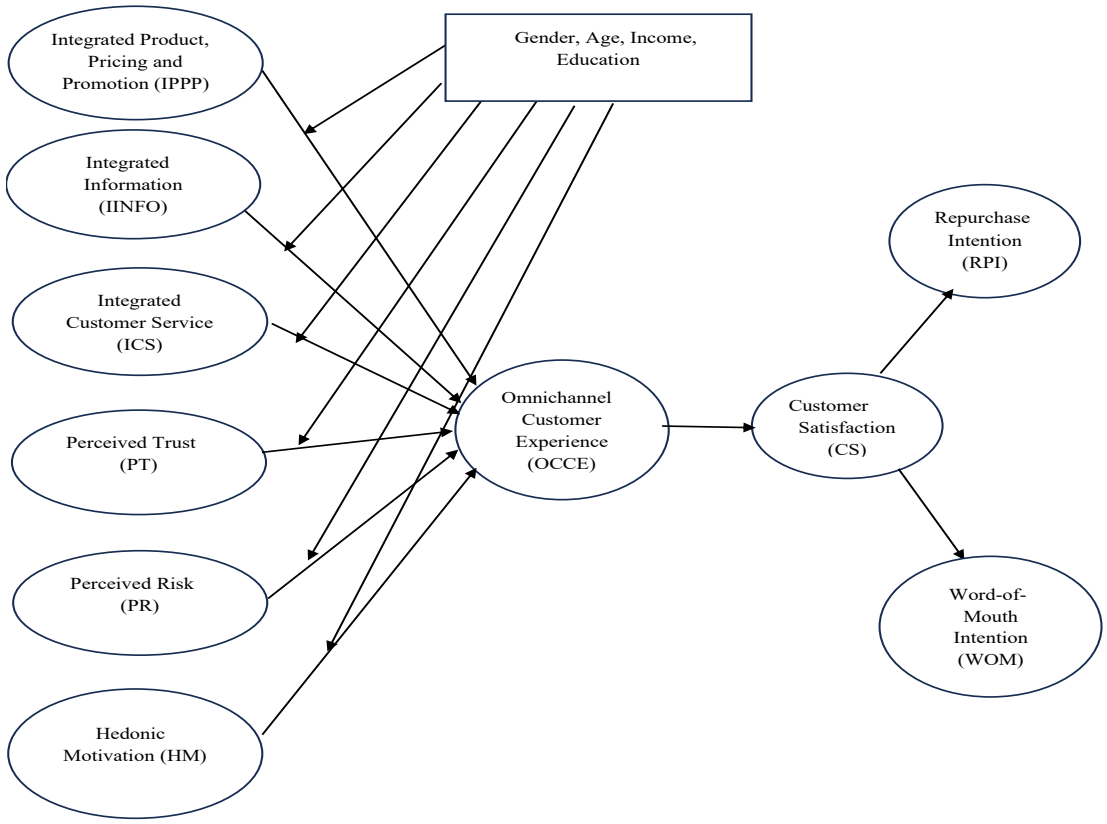
While prior studies have independently researched the phenomena of channel integration and technology adoption in omnichannel frameworks, this study examines their combined effects and importance in India's dynamic retail industry. Even though previous research has examined the role of demographics in omnichannel contexts, evaluating the role of demographics in the present study will provide a nuanced and comprehensive perspective. To further analyse the relevance and importance of the phenomenon of OCCE, understanding key customer responses, such as customer satisfaction and loyalty, is of utmost relevance. Lastly, the study also develops an index to measure OCCE in the TCG sector by prioritising the dimensions of OCCE, and it establishes a relationship between the antecedents and each of the OCCE dimensions to provide actionable insights to omnichannel retailers in India.

2.7 Conceptual Model and the Development of the Hypotheses

The study proposed a conceptual model to capture the critical antecedents influencing OCCE in the technical consumer goods sector by consolidating structural antecedents - Integrated Product, Pricing and Promotion (IPPP), Integrated Information (IINFO), Integrated Customer Service (ICS), and experiential antecedents - Perceived Trust (PT), Perceived Risk (PR), and Hedonic Motivation (HM). Further, since demographics have been found to moderate the relationships in omnichannel frameworks, this study has examined the moderating role of gender, age, income, and education between the antecedents and OCCE. OCCE in the study has been operationalised in terms of five dimensions (Integration, Consistency, Connectivity, Personalisation and Flexibility) based on the scale proposed by (Shi et al., 2020). To derive

nuanced insights, the study investigates the relationship between the antecedents and each of the dimensions of OCCE. Additionally, the study also evaluates the outcomes of OCCE in terms of Customer Satisfaction (CS), Repurchase Intention (RPI), and Word-of-Mouth Intention (WOM). The research model (Figure 2.1) is proposed, followed by the development of the hypotheses.

Figure 2.1: Research Model



Source: Author's Compilation based on Literature Review

2.7.1 Hypotheses of the study

The following objective-wise hypotheses are proposed:

Objective 1: To determine the antecedents influencing omnichannel customer experience in the technical consumer goods sector.

H1a: Integrated product, pricing, and promotion positively influences OCCE.

H1b: Integrated information positively influences OCCE.

H1c: Integrated customer service positively influences OCCE.

H1d: Perceived risk negatively influences OCCE.

H1e: Perceived trust positively influences OCCE.

H1f: Hedonic motivation positively influences OCCE.

Objective 2: To examine the role of select demographics in moderating the relationship between the antecedents and omnichannel customer experience in the technical consumer goods sector.

H2a: The gender of the consumer moderates the relationship between the selected antecedents and OCCE.

H2ai: Gender of the consumer moderates the relationship between IPPP and OCCE.

H2aii: Gender of the consumer moderates the relationship between IINFO and OCCE.

H2aiii: Gender of the consumer moderates the relationship between ICS and OCCE.

H2aiv: Gender of the consumer moderates the relationship between PT and OCCE.

H2av: Gender of the consumer moderates the relationship between PR and OCCE.

H2avi: Gender of the consumer moderates the relationship between HM and OCCE.

H2b: The age of the consumer moderates the relationship between the selected antecedents and OCCE.

H2bi: Age of the consumer moderates the relationship between IPPP and OCCE.

H2bii: Age of the consumer moderates the relationship between IINFO and OCCE.

H2biii: Age of the consumer moderates the relationship between ICS and OCCE.

H2biv: Age of the consumer moderates the relationship between PT and OCCE.

H2bv: Age of the consumer moderates the relationship between PR and OCCE.

H2bvi: Age of the consumer moderates the relationship between HM and OCCE.

H2c: The income of the consumer moderates the relationship between the selected antecedents and OCCE.

H2ci: Income of the consumer moderates the relationship between IPPP and OCCE.

H2cii: Income of the consumer moderates the relationship between IINFO and OCCE.

H2ciii: Income of the consumer moderates the relationship between ICS and OCCE.

H2civ: Income of the consumer moderates the relationship between PT and OCCE.

H2cv: Income of the consumer moderates the relationship between PR and OCCE.

H2cvi: Income of the consumer moderates the relationship between HM and OCCE.

H2d: The education of the consumer moderates the relationship between the selected antecedents and OCCE.

H2di: Education of the consumer moderates the relationship between IPPP and OCCE.

H2dii: Education of the consumer moderates the relationship between IINFO and OCCE.

H2diii: Education of the consumer moderates the relationship between ICS and OCCE.

H2div: Education of the consumer moderates the relationship between PT and OCCE.

H2dv: Education of the consumer moderates the relationship between PR and OCCE.

H2dvi: Education of the consumer moderates the relationship between HM and OCCE.

Objective 3: To analyse the impact of the antecedents on each of the dimensions of omnichannel customer experience in the technical consumer goods sector.

H3a: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the integration dimension of OCCE.

H3ai: IPPP has a significant impact on Integration.

H3aii: IINFO has a significant impact on Integration.

H3aiii: ICS has a significant impact on Integration.

H3aiv: PT has a significant impact on Integration.

H3av: PR has a significant impact on Integration.

H3avi: HM has a significant impact on Integration.

H3b: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the consistency dimension of OCCE.

H3bi: IPPP has a significant impact on Consistency.

H3bii: IINFO has a significant impact on Consistency.

H3biii: ICS has a significant impact on Consistency.

H3biv: PT has a significant impact on Consistency.

H3bv: PR has a significant impact on Consistency.

H3bvi: HM has a significant impact on Consistency.

H3c: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the personalisation dimension of OCCE.

H3ci: IPPP has a significant impact on Personalisation.

H3cii: IINFO has a significant impact on Personalisation.

H3ciii: ICS has a significant impact on Personalisation.

H3civ: PT has a significant impact on Personalisation.

H3cv: PR has a significant impact on Personalisation.

H3cvi: HM has a significant impact on Personalisation.

H3d: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the connectivity dimension of OCCE.

H3di: IPPP has a significant impact on Connectivity.

H3dii: IINFO has a significant impact on Connectivity.

H3diii: ICS has a significant impact on Connectivity.

H3div: PT has a significant impact on Connectivity.

H3dv: PR has a significant impact on Connectivity.

H3dvi: HM has a significant impact on Connectivity.

H3e: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the flexibility dimension of OCCE.

H3ei: IPPP has a significant impact on Flexibility.

H3eii: IINFO has a significant impact on Flexibility.

H3eiii: ICS has a significant impact on Flexibility.

H3eiv: PT has a significant impact on Flexibility.

H3ev: PR has a significant impact on Flexibility.

H3evi: HM has a significant impact on Flexibility.

Objective 4: To examine the effect of omnichannel customer experience on customer satisfaction and the effect of customer satisfaction on repurchase intention and word-of-mouth intention in the technical consumer goods sector.

H4a: OCCE significantly influences CS.

H4b: CS significantly influences the RPI of the customers.

H4c: CS significantly influences the WOM of the customers.

Objective 5: To analyse the mediating relationship of customer satisfaction between omnichannel customer experience and the behavioural outcomes, specifically repurchase intention and word-of-mouth intention, in the technical consumer goods sector.

H5a: CS mediates the relationship between OCCE and RPI in the technical consumer goods sector.

H5b: CS mediates the relationship between OCCE and WOM in the technical consumer goods sector.

2.8 Summary

This chapter deliberates the existing theoretical and empirical foundations of omnichannel customer experience in the technical consumer goods sector. The review is organised around four themes: key antecedents shaping omnichannel experience, the moderating role of demographic factors, the behavioural and relational outcomes of omnichannel experience, and the need to develop an omnichannel customer experience index. The chapter concludes by identifying the research gap and presenting the proposed model and hypotheses for empirical testing.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The research methodology and design adopted for the study are presented in this chapter. It discusses the data collection process, sampling design, statistical methods, and software used for analysis. It also covers the measurement scales, their content validity, the results of the pilot study, and the development of the final questionnaire.

Quantitative research in psychology and the social sciences is grounded in positivist or post-positivist assumptions that emphasise objectivity, theory-driven inquiry, and deductive reasoning. Within this approach, researchers derive research questions and hypotheses from existing theory and then test them against empirical data (Crick, 2024; Lim et al., 2026). Accordingly, quantitative studies commonly employ structured procedures such as questionnaire construction, measurement design, and statistical data analysis.

Questionnaire construction is key in a survey-based quantitative research approach. This study has identified various constructs and their measurement scales from various domains, which include customer experience, channel integration, technology adoption, and consumer behaviour. A standard scale is chosen in order to ensure the reliability and validity of the study outcome.

Although probability sampling is generally preferred when the objective is statistical generalisation (Lynch, 1982), non-probability sampling is widely used in marketing and consumer research because many studies prioritise practical access to respondents, speed, and cost efficiency over absolute population representativeness (Calder et al., 1981; Goodman & Paolacci, 2017; Peterson, 2001). Convenience sampling is often adopted when respondents are readily accessible, while purposive or judgmental sampling is used when participants must possess specific characteristics and snowball sampling is useful when the target group is difficult to identify, reach, or list through a formal sampling frame (Johnson, 2014).

Data analysis is pivotal to substantiate the hypotheses; choosing appropriate statistics displays the rigour of the research, and it helps to attain relevance, too. Besides the research questions

and methods, data analysis demands greater rigour to make the research effective (Houston, 2019). This study has captured the data through the questionnaire-based method, where data is predominantly perceptual data or psychometric data, and in this scenario, structural-based statistical techniques such as PLS-SEM are most suitable. Besides this, to describe and compare the omnichannel experience and other constructs through various demographic characteristics, PLS-MGA was employed. Additionally, to determine the impact of the antecedents on each of the dimensions of omnichannel customer experience, regression analysis is employed. Finally, an omnichannel customer experience index is developed using AHP.

3.2 Research Design – Antecedents and Outcomes of Omnichannel Customer Experience

The research design describes the sampling design, including defining the population, target population, sampling frame, sampling technique, sample size, and study period. It then details the type of data used, the procedures followed for data collection, and the development of the structured questionnaire. Finally, it discusses the steps taken to establish content validity and reliability through expert evaluation and a pilot study, thereby ensuring that the measures employed are robust and appropriate for the study objectives.

3.2.1 Sampling Design

The sampling design of the research study consists of the population of the study, the target population, the sampling frame, the sampling technique, the sample size, the justification of the sample size and the period of the study.

3.2.1.1 Population of the study

The population of the study comprised individuals in India who used different omnichannel platforms for purchasing technical consumer goods.

3.2.1.2 Target Population

The target population of the study included individuals residing in India who used a minimum of two channels while purchasing technical consumer goods in the 12 months prior to the date the questionnaire was administered.

3.2.1.3 Sampling frame

The details of the individuals using a minimum of two channels while shopping for technical consumer goods were not available on any public platform; thus, a non-probability sampling method was employed in the study.

3.2.1.4 Sampling technique

The primary data were collected using a non-probability sampling technique, namely purposive (judgmental) sampling. This technique was considered appropriate because the study required respondents who possessed specific and relevant shopping experience related to the research problem. Since the objective was to obtain responses from consumers familiar with omnichannel purchasing of technical consumer goods, respondents were selected on the basis of predefined eligibility criteria rather than through random selection. The respondents were selected using the following criteria:

1) The respondents or sample units were persons who shopped for consumer electronics or home appliances using a minimum of two channels.
2) The respondents should have shopped for these goods in the past 12 months prior to responding to the questionnaire.
3) This ensured that the data were collected only from respondents who had a recent and relevant omnichannel shopping experience and were therefore in a position to provide informed responses.

3.2.1.5 Sample size

The data were collected from 715 respondents; however, only 703 respondents i.e. 98% of the respondents, fulfilled the selection criteria, wherein the respondents had to have previous purchase experience of using a minimum of two channels and shopping for technical consumer goods in the one year prior to the questionnaire being administered to them. The sample size of 703 respondents is assumed as representative based on the "10-times rule". For determining the minimum sample size while using PLS-SEM, the "10-times rule" method suggested by Hair et al. (2012) and Peng & Lai (2012) can be used. This method suggests that the sample size should be greater than 10 times the maximum number of inner and outer model links pointing at any latent variable in the model (Goodhue et al., 2012). As there are 69 items in the various scales, an appropriate sample size would be 69*10 = 690. Therefore, the final sample of 703 is

sufficiently large for PLS-SEM analysis and exceeds commonly cited minimum thresholds (Hair et al., 2014).

3.2.1.6 Period of the study

The data were collected between March 2024 and October 2024.

3.2.2 Data type and method of collection

The primary data, which were cross-sectional in nature, were collected through a structured questionnaire designed using Google Forms. The link was circulated via various platforms, including social media. All respondents were informed about the purpose of the study, and their participation was voluntary, with assurances of confidentiality and anonymity of their responses and no personal identifiers were collected in the survey to maintain their anonymity. To ensure data completeness, all items were marked as mandatory.

3.2.3 Questionnaire design, Content validity, and Pilot study

The draft questionnaire for the study was developed based on an extensive literature review. The various items were adapted from validated measurement scales reported in prior published research, and the responses were evaluated on a seven-point Likert scale where 1= Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Neutral, 5 = Somewhat Agree, 6 = Agree, and 7 = Strongly Agree. Once the initial draft was prepared, the content validity of the questionnaire was examined through discussions with academic and industry experts. Their feedback and inputs assisted in refining the wording, structure, and clarity of items, as well as eliminating repetitive items, thus ensuring relevance to the study context. After incorporating these expert recommendations, a pilot survey was conducted with a sample of 50 respondents from the target population. The pilot survey served to assess the reliability of the constructs and also confirmed the face validity of the questionnaire by establishing that the respondents found the items clear, understandable, and relevant to the study. Subsequently, the questionnaire was approved for full-scale data collection, ensuring that it was both methodologically sound and contextually tailored to the research objectives.

3.2.3.1 Constructs – Definition and Measurement

This section defines each construct examined in the study and describes the measurement scale (Table 3.1) used for its operationalisation, including the source of the items. Firstly, the

antecedents of OCCE are defined, followed by the definition of OCCE and its dimensions and subsequently, the outcomes of OCCE are defined.

Integrated Product, Pricing, and Promotion (IPPP)

Integrated product, pricing and promotion refers to the extent to which a retailer presents uniform product information, pricing, and promotional content across all channels to minimise consumer confusion and maintain brand consistency (Gao et al., 2021; Oh et al., 2012; Zhang et al., 2018). As suggested by (Gao et al., 2021; Oh et al., 2012; Zhang et al., 2018) IPPP impacted the OCCE, especially the cognitive experience. This facet is commonly treated as a dimension of channel integration quality in omnichannel retailing research.

Integrated Information (IINFO)

Integrated information involves maintaining a singular account of a customer to record and track all the transactions and interactions of the customer with the brand, irrespective of the channel of transaction and interaction (Gao et al., 2021; Oh et al., 2012; Zhang et al., 2018). It captures whether customer profiles, interaction histories, and transaction records are accessible across systems, enabling continuity when customers switch channels during the journey. (Iglesias-Pradas et al., 2022). This information integration supports seamless movement between online and offline touchpoints and reduces the need for customers to repeat information (Gao et al., 2021; Lee, 2020).

Integrated Customer Service (ICS)

Integrated customer service means offering a unified service to the customer, irrespective of the channel of transaction or channel of availing the customer service (Gao et al., 2021; Oh et al., 2012; Zhang et al., 2018). This includes cross-channel visibility of purchase histories, uniform complaint handling, and consistent follow-up and escalation rules (Piotrowicz & Cuthbertson, 2014). Such service integration is treated as a key operational capability in omnichannel retailing and is theorised to improve customer experience by reducing effort and friction across touchpoints (Barari et al., 2020).

Perceived Risk (PR)

Perceived risk can be defined as the uncertainty experienced by a consumer with regard to the possibility of undesirable effects while shopping on omnichannel platforms (Ariffin et al., 2018; Xu & Jackson, 2019). By building fully integrated platforms and providing consistent

information about products, prices, and services across platforms, omnichannel retailers alleviate the risk experienced by consumers, especially while shopping for high-involvement products (Ariffin et al., 2018; Xu & Jackson, 2019), and therefore perceived risk is an important psychological mechanism linking channel design to customer responses.

Perceived Trust (PT)

Perceived trust reiterates the consumer's belief in a retailer to deliver on its promises across all channels (Bahri et al., 2023; Rahman et al., 2022; Zhang et al., 2018). If customers trust a retailer, they are more confident to make a purchase and spend a higher share of their wallet (Wang et al., 2022). Perceived trust captures confidence that the retailer's information, processes, and service commitments can be depended on throughout the omnichannel journey, including payment, fulfilment, returns, and post-purchase support (Yen, 2023).

Hedonic Motivation (HM)

Venkatesh et al. (2012) define hedonic motivation as the "fun or pleasure derived from using a technology". Kazancoglu & Aydin (2018) asserted that hedonic motivation affected OCCE as customers wanted to have an engaging experience and enjoy the entire purchase journey to reduce negative feelings. In omnichannel environments, it captures the extent to which the journey is engaging and enjoyable, beyond purely functional benefits.

Omnichannel Customer Experience (OCCE)

Omnichannel experience is conceptualised as a "phenomenon encompassing customers' cognitive, emotional, social, sensory and behavioural responses" (Lemon & Verhoef, 2016) in a framework that "manages channels as intermingled touch points to allow consumers to have a seamless experience pre- and post-consumption" (Shen et al., 2018). For the purpose of the study, OCCE is measured in terms of five dimensions as suggested by Shi et al. (2020). The dimensions are Integration, Personalisation, Connectivity, Consistency and Flexibility.

Integration involves aligning information systems and operations across channels and touchpoints to maintain a unified brand experience (Shi et al., 2020). Saghiri et al. (2017) assert that channel integration is the key difference between multi-channel and omnichannel retail, as it enables retailers to maintain a unified record of each customer across channels. Personalisation involves customising product and service offerings (Rooderkerk & Kök, 2019). Personalisation can help reduce the uncertainty faced by customers in an omnichannel framework by assisting them in making more informed purchases. Connectivity involves

linking the information available across channels to give a unified image of the brand (Shi et al., 2020). It refers to the process by which customers can check for product availability across the channels and reveals how well the channels are interlinked. Consistency is concerned with providing customers with the same product, same information, and same service across channels (Shi et al., 2020), and inconsistency in messaging, pricing, promotions, or experiences causes customer confusion, leading to low customer satisfaction and reduced spending (Cunnane, 2012). Kazancoglu & Aydin (2018) assert that the consistency of product quality and pricing strategy across channels reduces information asymmetry and perceived risk, and hence, omnichannel systems demand the development of technical infrastructure to ensure consistency in data maintained across channels. Flexibility refers to the extent to which customers are provided with flexible options as they migrate from one channel to another. Kazancoglu & Aydin (2018) noted that customers might be anxious about product availability, payment risks, and delivery processes when they switch across channels, and therefore, omnichannel retailers need to offer flexible options to their customers across channels. This enhances the shopping experience due to the convenience offered to the customers. Thus, the dimensions of OCCE are diverse and require a strategic approach to ensure a seamless, consistent, and personalised customer journey across all channels.

Customer Satisfaction (CS)

Customer satisfaction has been defined as "a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfilment" (Oliver, 2014). Bezes (2022) defines customer satisfaction as "the customer's overall evaluative judgment of the retailer based on their end-to-end omnichannel shopping experiences (online and offline), reflecting the extent to which the retailer's performance meets or exceeds expectations over time."

Repurchase Intention (RPI)

Repurchase intention refers to the "subjective probability that an individual will continue to purchase products from the online vendor or store in the future" (Chiu et al., 2009). According to Seiders et al. (2005), repurchase intentions "represent the customer's self-reported likelihood of engaging in future repurchase behaviour".

Word-of-Mouth Intention (WOM)

Zeithaml et al. (1996) defined WOM as a consumer's likelihood to recommend and say positive things about a company to other consumers. WOM refers to "informal communications directed at other consumers about the ownership, usage, or characteristics of goods/services and/or their sellers" (Westbrook, 1987).

Table 3.1: Constructs, Items and Sources

Constructs	Statements *(Items)*	Sources
Integrated Product, Pricing and Promotion	The name/tagline/logo of the brand I am looking for is consistent across both online and offline channels *(IPPP1).*	(Gao et al., 2021; Oh et al., 2012;
	The online channels (website, mobile application, social media pages) highlight in-store promotions (eg, new arrivals, discount sales, etc.) that are taking place in the physical store *(IPPP2)*.	
	Product details are consistent across both the physical store and online channels (website, mobile application, social media pages) *(IPPP3)*.	
	The physical store advertises the online channels (website, mobile application, social media pages) through pamphlets/standees/carrying bags/receipts *(IPPP4)*.	
	Inventory information is consistent across the physical store and the online channels *(IPPP5)*.	
	Product prices are consistent across the physical store and the online channels *(IPPP6)*.	
Integrated Information	The brand keeps an integrated purchase history of my online and offline purchases *(IINFO1).*	
	Future recommendations are made by the brand to me based on my past offline/online purchases *(IINFO2).*	

	Web pages/ mobile applications/social media pages are customised for me based on my past offline/online purchases *(IINFO3)*.	Zhang et al., 2018)
	I am able to check the availability of stock at the physical store via the online channels *(IINFO4)*.	
	Internet kiosks are available in the physical store to access information on online channels *(IINFO5)*.	
Integrated Customer Service	The customer service centre managed by the physical store accepts exchange, return, and repair requests for products purchased online *(ICS1)*.	
	I am able to redeem the gift coupons/vouchers issued by the brand either online or offline *(ICS2)*.	
	The brand, through its online channels (website, mobile application, social media pages), provides post-purchase services such as exchange, returns, and repairs for the products purchased at the physical store *(ICS3)*.	
	The brand, through its online channels (website, mobile application, social media pages), provides interactive access to the customer service assistant through a chatbot *(ICS4)*.	
	The brand allows me to collect my online purchases in the physical store *(ICS5)*.	
Perceived Risk	I believe that there's a high risk when making omnichannel (using more than 1 channel) shopping (search, purchase) decisions *(PR1)*.	(Shi et al., 2020)
	I am more likely to suffer losses when using omnichannel brands to make purchase decisions *(PR2)*.	

	The probability that I will get a good bargain from omnichannel shopping is small *(PR3)*.	
Perceived Trust	I feel my personal information is securely managed by the omnichannel brand, irrespective of my shopping channel *(PT1)*.	(Zhang et al., 2018)
	I feel that the brand transmits my transactional information (purchase histories, order details) accurately *(PT2)*.	
	I would feel safe providing sensitive information (bank details, card numbers) over the omnichannel platforms *(PT3)*.	
	I believe that this brand is reliable and trustworthy *(PT4)*.	
	I believe that this brand's products are dependable *(PT5)*.	
Hedonic Motivation	Being able to use omnichannels throughout the purchase of technical consumer products is enjoyable *(HM1)*.	(Jaengprajak & Chaipoopirata na, 2022; Venkatesh et al., 2012)
	Being able to use omnichannels throughout the purchase of technical consumer products is pleasurable *(HM2)*.	
	Being able to use omnichannels throughout the purchase of technical consumer products is interesting *(HM3)*.	
Integration	My interactions across different channels are integrated and considered for each purchase *(INTG1)*.	(Shi et al., 2020)
	Descriptions of products are integrated across different channels *(INTG2)*.	

	New products are simultaneously launched across different channels *(INTG3)*.	
	Product variants are available across different channels *(INTG4)*.	
Personalisation	Shopping recommendations are made based on my personal information and purchase records across different channels *(PER1)*.	
	Discounts and incentives are offered based on my personal information and purchase records across different channels *(PER2)*.	
	Web pages are customised based on my personal information and purchase records across different channels *(PER3)*	
	Client-specific rewards/points are awarded based on my past purchases across different channels *(PER4).*	
Consistency	Trademarks, brand names, and slogans are consistent across different channels *(CONS1).*	
	I receive consistent responses across different channels *(CONS2).*	
	The quality of products is consistent across different channels *(CONS3).*	
	The service performance is consistent across different channels *(CONS4).*	
Flexibility	I can examine products in the physical store and order them online *(FLEX1).*	
	I am able to choose alternative channels for a given service *(FLEX2)*.	

	I can order online and pay and pick-up offline *(FLEX3)*.	
	The after-sales service is available across different channels *(FLEX4)*.	
	I can accomplish specific tasks through preferred channels *(FLEX5)*.	
Connectivity	I can check the stock availability across different channels *(CNNV1)*.	
	I can enquire about product information across different channels *(CNNV2)*.	
	I can check offline stock status through different online channels *(CNNV3)*.	
	My reading of the content is continuous and connected across different channels *(CNNV4)*.	
	My member accounts across different channels are connected *(CNNV5)*.	
	My interactions with customer service representatives across different channels are interconnected *(CNNV6)*.	
Customer satisfaction	I am satisfied with my overall experience of omnichannel shopping *(CS1)*.	(Rose et al., 2012)
	I am satisfied with the pre-purchase (product search, quality of product information, product comparison) experience of omnichannel shopping *(CS2)*.	
	I am satisfied with the purchase (ordering, payment) experience of omnichannel shopping *(CS3)*.	

	I am satisfied with the post-purchase (post-sales support, returns/refunds) experience of omnichannel shopping *(CS4)*.	
Repurchase Intention	I will use omnichannel shopping in the near future *(RPI1)*.	(Taylor & Todd, 1995; Wu et al., 2014)
	I intend to use omnichannel shopping frequently in the future *(RPI2)*.	
	I prefer to recommend omnichannel shopping to people around me *(RPI3)*.	
Word-of-mouth intention	I would like to introduce omnichannel brands to others *(WOM1)*.	(Eisingerich et al., 2015; Roy et al., 2017)
	I would speak favourably about the omnichannel brands to others *(WOM2)*.	
	I would assist other customers with the omnichannel brands if they need my help *(WOM3)*.	
	I would say positive things and recommend the omnichannel brands on social networking sites *(WOM4).*	
	I would use social sites to encourage friends and relatives to buy the omnichannel brand's products *(WOM5)*	

3.2.3.2 Content Validity

To establish content validity, the draft questionnaire was evaluated by five subject-matter experts from academia and industry, including senior marketing faculty and experienced practitioners in the technical consumer goods sector. Their feedback was systematically reviewed and incorporated into the final questionnaire.

The three academic experts noted that, although the underlying model and constructs were appropriate, the initial questionnaire was relatively lengthy and attempted to capture too many aspects simultaneously. They advised reducing overall complexity, eliminating double-barreled

items, and rephrasing several statements to improve clarity and respondent comprehension. They also recommended consolidating overlapping constructs and retaining approximately four to five well-formulated items per construct, given the likelihood that some indicators might not achieve satisfactory factor loadings during subsequent analysis. The two industry practitioners who were approached similarly observed that most items were relevant to omnichannel practice but identified a few statements as repetitive. In addition, they recommended restructuring the customer satisfaction items to capture overall and phase-wise omnichannel experience (pre-purchase, purchase and post-purchase).

In line with these suggestions, the questionnaire was refined by shortening its length, removing double-barreled and repetitive items and consolidating overlapping constructs.

3.2.3.3 Pilot study

The pilot survey was conducted among 50 respondents who had previously purchased technical consumer goods using a minimum of two channels. The questionnaire was circulated among the respondents via social media and other platforms using Google Forms. The objective of the pilot survey was to examine the relevance and reliability of the draft questionnaire designed for the study. The reliability of the constructs was tested using Cronbach's Alpha. The statements of the various constructs were found to be reliable, as the Cronbach's Alpha was between 0.7 and 0.9.

3.3 Research Design – Analytical Hierarchy Process

The sample for objective 6, i.e. the development of the OCCE index, consisted of 29 senior practitioners in India's technical consumer goods sector, having more than 5 years of experience. The data were collected between October 2024 and January 2025. These respondents were selected based on their expertise and experience in omnichannel retailing and customer experience management. The search for industry experts meeting the study-specific criteria was undertaken through personal networks and social media websites such as LinkedIn and Rocket Reach. A structured pairwise comparison questionnaire was shared via email with the experts. A total of 50 industry professionals were identified, and these experts were requested to participate in the survey. However, only 29 consented to do so. The survey was conducted through a combination of a structured questionnaire and follow-up interviews to clarify any queries.

3.4 Statistical Methods Used in the Study

3.4.1 Descriptive Analysis

The study applied descriptive analysis to the collected responses received from the customers who participated in the survey. The descriptive analysis includes the description of the mean score, which indicates the level of agreement of the customer with respect to the different statements included in the questionnaire. The standard deviation of the responses indicates the dispersion in the responses received in the survey. The skewness and kurtosis of the responses represent the distribution of the responses.

3.4.2 Reliability Analysis

The internal consistency reliability is examined in order to test the relationship between the statements used to measure the factors in the questionnaire. The internal consistency reliability is required in the responses in order to achieve reliable results from the hypothesis testing. The Cronbach's alpha is used to test the presence of internal consistency reliability of the responses for each factor included in the scale. The Cronbach's alpha for each factor is required to be greater than 0.7 in order to ensure the presence of reliability (Cavana et al., 2001).

3.4.3 Construct Validity

The construct validity examined the two dimensions of the measurement scale namely convergent validity and discriminant validity. The convergent validity of the questionnaire examines the relationship between the statements and the construct measured by them, which is expected to be high. The convergent validity of the scale used in the study is examined using construct loadings, composite reliability (CR) and average variance extracted (AVE). The expected value of both construct loadings and CR in order to satisfy the criteria of convergent validity is 0.7 and above (Cavana et al., 2001), whereas the AVE of each construct must be greater than 0.5 (Fornell & Larcker, 1981). The second dimension of construct validity is discriminant validity, which indicates the low relationship between statements measuring the different constructs. The discriminant validity of the questionnaire used in the study is examined with the help of HTMT ratio and Fornell-Larcker criteria.

3.4.4 Multicollinearity

The multicollinearity among the items measuring different factors influencing the omni channel customer experience is examined with the help of Variance Inflation Factor (VIF) estimates. Multicollinearity refers to high correlation among items. The VIF measures of all the included items in the questionnaire is expected to be less than 3 (Kock, 2015).

3.4.5 Structural Equation Modelling (SEM)

The SEM approach is used to test the hypotheses associated with the research model proposed to be examined in the study. The model includes six factors (integrated product, pricing & promotion, integrated information, integrated customer service, perceived risk, perceived trust, and hedonic motivation) that are assumed to influence the omnichannel customer experience. These factors are included in the structural model as exogenous constructs, and omnichannel customer experience is assumed to be endogenous. The omnichannel customer experience is hypothesised to influence customer satisfaction, which, in turn, influences customer responses in terms of repurchase intention and word-of-mouth intention. The structural model is examined with the help of SEM analysis using SmartPLS 4 software.

3.4.6 Moderation Analysis

The moderating effect of the consumer demographics (gender, age, income and education) is examined for the relationship between six included factors as antecedents, namely integrated product, pricing, & promotion, integrated information, integrated customer service, perceived risk, perceived trust, and hedonic motivation and omnichannel customer experience. The multi-group moderation method is used to compare the slope coefficient of the different groups in the case of gender, age and income. The moderation is said to exist if the differential slope coefficients are found statistically significant. In addition to this, the moderating effect of education is also examined with the help of the interaction moderation analysis.

3.4.7 Correlation Analysis

The correlation analysis is applied to examine the relationship between the different variables included in the regression analysis. The six antecedents of OCCE (hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust) and the five different dimensions of OCCE (integration,

personalisation, connectivity, flexibility and consistency) are included and examined using Pearson correlation.

3.4.8 Multiple Regression Analysis

The impact of the antecedents (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) on different dimensions of OCCE (integration, connectivity, consistency, flexibility, and personalisation) in the technical consumer goods sector is examined using multiple regression analysis. The multiple regression approach is applied, assuming the different dimensions as dependent variables and the six antecedents as independent variables.

3.4.9 Mediation Analysis

The level of satisfaction of the customers is assumed to play a mediating role between the omnichannel customer experience and repurchase intention, and the omnichannel customer experience and word-of-mouth intention in the technical consumer goods sector. It is expected that the omnichannel customer experience leads to repurchase intention and word-of-mouth intention via their satisfaction in the technical consumer goods sector. In the structural model, customer satisfaction is assumed to be a mediating construct, whereas the OCCE of the customers is assumed to be an independent construct and repurchase intention and word-of-mouth intention are assumed to be endogenous constructs. The mediating effect of customer satisfaction between OCCE and RPI and OCCE and WOM is examined with the help of the process suggested by Baron and Kenny (1986) along with the bootstrap method.

3.4.10 Analytical Hierarchy Process (AHP)

The fuzzy AHP approach is used to develop an OCCE index by prioritising the five key dimensions of OCCE suggested by Shi et al., (2020). AHP employs a multi-criteria decision-making technique suggested by Saaty (1987), which helps prioritise criteria based on expert pairwise comparisons. It decomposes complex decision problems into hierarchical structures by quantifying the intuitions of marketing professionals. The outcome of AHP is a ranking of the five OCCE dimensions with associated weights indicating their relative importance.

3.5 Confidence Level and Level of Significance

The framed hypotheses in the study are examined using suitable statistical analysis, employing the p-value approach. The p-value indicates the probability of committing a Type I error, which is restricted to the value of 5%. Thus, all the conclusions drawn in the study are based on the assumption of a 95% confidence level. This implies that when the same study is repeated with different samples from the same population, it is expected that in about 95 out of 100 such studies, the conclusions drawn using this procedure would be correct, and only in 5 out of 100 studies, the conclusion might be wrong due to random chance.

3.6 Software used for Data Analysis

The study employed three software applications for data analysis, based on the specific requirements of each research objective. SmartPLS 4 was used for Objectives 1, 2, 4, and 5, as these objectives required structural equation modelling to examine direct, moderating, and mediating relationships among the study constructs. Specifically, it was used to identify the antecedents influencing omnichannel customer experience, assess the moderating role of demographic variables, analyse the effect of omnichannel customer experience on customer satisfaction and behavioural outcomes, and test the mediating role of customer satisfaction between omnichannel customer experience and the behavioural outcomes. IBM SPSS Statistics Version 26 was used for Objective 3, where multiple regression analysis was applied to analyse the impact of the antecedents on each dimension of omnichannel customer experience in the technical consumer goods sector. For Objective 6, Microsoft Excel was used to develop the omnichannel customer experience index through the Analytic Hierarchy Process (AHP). Excel was used to perform calculations for the geometric mean, the normalised pairwise comparison matrix, local weights, and global weights.

3.7 Summary

This methodological framework adopted to address the objectives of the study has been discussed in this chapter. It detailed the research design and the procedures followed for data collection, sampling, and respondent selection. The chapter also explained the statistical techniques used for analysis and the software employed to implement them. In addition, it documented the definitions and operationalisation of the constructs in the study by specifying the measurement scales and their sources, along with the steps taken to establish content

validity. The pilot study findings were summarised to justify any refinements, culminating in the development of the final questionnaire and the finalised approach for empirical analysis in the subsequent chapters.

CHAPTER 4
ANTECEDENTS OF OMNICHANNEL CUSTOMER EXPERIENCE

4.1 Introduction

A detailed analysis of the first research objective is presented in this chapter, which focuses on identifying and examining the key antecedents of OCCE in the technical consumer goods sector. It includes descriptive analysis, the assessment of the measurement model, and the subsequent evaluation of the hypothesised relationships in line with Objective 1.

The chapter begins by presenting the demographic profile of the respondents in order to provide an overview of the sample characteristics. This is followed by the descriptive statistics of the various items, which offer an initial understanding of the responses and the distribution of the observed variables. Thereafter, the measurement model is evaluated through appropriate statistical procedures, including the assessment of reliability, construct validity, multicollinearity, and common method bias, to establish the adequacy and robustness of the constructs used in the study.

Subsequently, the chapter presents a detailed analysis of Objective 1 by examining the empirical relationships among the constructs, i.e. the structural model. The results are interpreted in relation to the research objective and the proposed framework, with particular emphasis on identifying the significant antecedents of OCCE in the technical consumer goods sector. The chapter concludes with a discussion of the key findings and their implications for understanding customer experience in an omnichannel retail context.

4.2 Demographic Profile of the Respondents

The data for the study were collected through a structured questionnaire administered via Google Forms and shared across online platforms. In total, 715 respondents from various states across India participated in the survey. Out of these, 703 responses were found to be valid and were retained for analysis, while the remaining responses were excluded because they did not

satisfy the prescribed eligibility criteria. The dataset contained no missing values since all the questions were marked as mandatory.

Table 4.1: Demographic Profile of the Survey Respondents

Demographics	Sub Categories	Frequency (%)
Gender	Male	378 (53.8%)
	Female	325 (46.2%)
Age Group	18 to 30 years	276 (39.3%)
	31 to 45 years	263 (37.4%)
	Above 45 years	164 (23.3%)
Annual Income	Less than Rs 5 lakhs	203 (28.9%)
	Rs 5 to Rs 10 lakhs	284 (40.4%)
	Above Rs 10 lakhs	216 (30.7%)
Education	Under Graduate	87 (12.4%)
	Graduate	190 (27.0%)
	Post Graduate	240 (34.1%)
	Professionally Qualified	186 (26.5%)

Source: Primary Data

Table 4.1 provides a summary of the respondents' demographic profile. The study was conducted among 703 respondents across India who had previously shopped for technical consumer goods using a minimum of two channels. The sample comprises 378 males (53.8%) and 325 females (46.2%). Hence, with an almost equal number of males and females, the findings would be less skewed and more widely generalisable across genders. With respect to age, most respondents are in the age group of 18–30 years (276; 39.3%), followed by 31–45 years (263; 37.4%), and Above 45 years (164; 23.3%). The sample mainly comprises working adults, which is appropriate for the study, considering that technical consumer goods are purchased more frequently and at higher values by employed people. Regarding the annual income distribution, the sample is skewed towards higher-earning segments – Rs 5–10 lakhs (284; 40.4%), Above Rs 10 lakhs (216; 30.7%), and Less than Rs 5 lakhs (203; 28.9%). Approximately 70% of the respondents earn more than Rs 5 lakhs annually, indicating substantial purchasing power and a strong fit with the target market for technical consumer goods, which often entails premium pricing. Lastly, with respect to the educational qualifications of the respondents, 34.1% are postgraduates; 27% are graduates, 26.5% are

professionally qualified individuals, and only 12.4% are undergraduates. The overall level of education of the respondents is consistent with omnichannel behaviour, which involves extensive information search, comparison, and evaluation across online and offline touchpoints.

Overall, the demographic distribution of the respondents indicates a balanced representation of genders, a higher concentration of working-age adults with comparatively high purchasing power, and a largely well-educated sample, which is appropriate for drawing inferences about omnichannel experiences in a high-involvement retail sector.

4.3 Descriptive Statistics

This section presents the descriptive statistics of the responses received. The descriptive analysis includes the description of the mean score, which indicates the level of agreement of the respondents with respect to the different statements included in the questionnaire. It also includes the standard deviation of the responses, which indicates the dispersion in the responses from the mean. The skewness and kurtosis of the responses are also included, which represent the distribution of the responses.

Table 4.2 presents the descriptive statistics for all measurement items, measured on a 7-point Likert scale. After reverse-coding any negatively worded items, the mean score of the items measuring the various constructs is around 4, evidencing moderate to high agreement (DeVellis, 2017). The standard deviations of the various items are of moderate magnitude, evidencing adequate dispersion. Skewness values lie within commonly accepted bounds (-1 to +1) (Zikmund et al., 2013), implying near-symmetry of the item distributions. Kurtosis values are also within recommended limits (-1 to +2) (Zikmund et al., 2013), indicating no tail heaviness. Altogether, these mean and variability patterns, along with acceptable skewness and kurtosis, support the suitability of the data for subsequent estimations and reduce concerns about violations of distributional assumptions at the indicator level.

Table 4.2: Descriptive Analysis

Construct	Items	Mean	Standard deviation	Kurtosis	Skewness
Integrated Product, Pricing and Promotion	IPPP1	4.738	1.666	-0.728	-0.357
	IPPP2	4.767	1.64	-0.72	-0.364
	IPPP3	4.787	1.661	-0.647	-0.433

	IPPP4	4.789	1.679	-0.695	-0.405
	IPPP5	4.743	1.701	-0.697	-0.431
	IPPP6	4.814	1.641	-0.611	-0.427
Integrated Information	IINFO1	4.772	1.687	-0.486	-0.514
	IINFO2	4.801	1.613	-0.505	-0.47
	IINFO3	4.727	1.633	-0.739	-0.288
	IINFO4	4.762	1.632	-0.49	-0.471
	IINFO5	4.745	1.654	-0.612	-0.42
Integrated Customer Service	ICS1	4.805	1.584	-0.056	-0.626
	ICS2	4.861	1.572	-0.069	-0.65
	ICS3	4.731	1.539	-0.52	-0.262
	ICS4	4.825	1.469	-0.253	-0.44
	ICS5	4.812	1.624	-0.373	-0.526
Perceived Risk	PR1	3.856	1.549	-0.428	0.199
	PR2	3.855	1.579	-0.493	0.171
	PR3	3.815	1.533	-0.369	0.263
Perceived Trust	PT1	4.735	1.619	-0.657	-0.351
	PT2	4.787	1.58	-0.654	-0.339
	PT3	4.791	1.557	-0.631	-0.297
	PT4	4.728	1.556	-0.802	-0.177
	PT5	4.737	1.623	-0.738	-0.26
Hedonic Motivation	HM1	3.986	1.605	-0.556	0.1
	HM2	4.024	1.573	-0.51	0.092
	HM3	3.976	1.601	-0.598	0.164
Integration	INTG1	4.651	1.685	-0.795	-0.286
	INTG2	4.752	1.6	-0.593	-0.365
	INTG3	4.674	1.709	-0.717	-0.355
	INTG4	4.752	1.629	-0.595	-0.316
Personalisation	PER1	4.926	1.595	-0.347	-0.513
	PER2	4.959	1.493	-0.645	-0.32
	PER3	4.94	1.547	-0.474	-0.456

	PER4	4.919	1.607	-0.499	-0.464
Consistency	CONS1	4.663	1.612	-0.597	-0.237
	CONS2	4.646	1.519	-0.588	-0.073
	CONS3	4.751	1.643	-0.763	-0.245
	CONS4	4.643	1.595	-0.683	-0.132
Flexibility	FLEX1	4.973	1.674	-0.706	-0.442
	FLEX2	4.945	1.696	-0.794	-0.425
	FLEX3	4.984	1.691	-0.667	-0.516
	FLEX4	4.862	1.753	-0.858	-0.384
	FLEX5	5.028	1.505	-0.43	-0.35
Connectivity	CNNV1	5.074	1.688	-0.695	-0.529
	CNNV2	5.078	1.67	-0.793	-0.512
	CNNV3	5.122	1.649	-0.706	-0.557
	CNNV4	4.987	1.706	-0.829	-0.447
	CNNV5	5.092	1.556	-0.275	-0.509
	CNNV6	5.021	1.523	0.165	-0.627
Customer Satisfaction	CS1	4.869	1.41	-0.531	-0.17
	CS2	4.876	1.426	-0.464	-0.22
	CS3	4.933	1.348	-0.261	-0.234
	CS4	4.842	1.731	-0.956	-0.458
Repurchase Intention	RPI1	4.666	1.412	-0.707	0.202
	RPI2	4.671	1.451	-0.645	0.022
	RPI3	4.881	1.459	-0.635	-0.051
Word-of-Mouth Intention	WOM1	4.885	1.194	0.682	-0.224
	WOM2	4.639	1.555	-0.322	-0.311
	WOM3	4.531	1.72	-1.075	0.044
	WOM4	4.579	1.508	-0.611	0.078
	WOM5	4.526	1.669	-0.989	0.085

Source: Primary Data

4.4 Assessment of the Measurement Model

This section presents the results of the testing of the measurement model to ensure that the dataset satisfies the statistical assumptions required for further analysis. The evaluation includes an analysis of the reliability and validity of the constructs to verify the internal consistency and distinctiveness of constructs. Further, tests for multicollinearity and common method bias are also performed to confirm that the data is free from high correlation and bias. The establishment of these assumptions is essential to ensure the robustness, accuracy, and interpretability of subsequent structural model estimations.

4.4.1 Reliability analysis

The internal consistency reliability was examined in order to test the relationship between the statements used to measure the various constructs. Cronbach's Alpha and Composite Reliability are used to assess the internal consistency reliability. Cronbach's Alpha and the Composite Reliability for each factor are required to be greater than 0.7 in order to ensure the presence of internal consistency within the constructs (Cavana et al., 2001). The result of the reliability analysis is reported in Table 4.3 and the values in case of all the constructs exceeded 0.7.

4.4.2 Construct validity

The construct validity is examined through convergent validity and discriminant validity. The convergent validity examines the relationship between the construct and the statements measuring the construct. The relationship between the items and the construct is expected to be high. The convergent validity is examined using construct item loadings, which indicate the relationship between the statements and constructs, and Average Variance Extracted (AVE), which indicates the proportion of the variance in the constructs explained by its own items. The item loadings are expected to be greater than 0.7, whereas the AVE should be greater than 0.5 as per the criteria proposed by Fornell & Larcker (1981). The discriminant validity of the scale anticipates a minimal correlation among items that assess the various constructs encompassed within the scale and is examined with the help of the Heterotrait-Monotrait (HTMT) ratio and Fornell-Larcker criterion. The HTMT ratio examines the ratio of the relationship between the items of different constructs (Heterotrait) to the relationship between the statements (Monotrait) measuring the same construct. According to Henseler et al. (2015), a HTMT ratio of less than 0.85 is required to satisfy the criteria of discriminant validity. The Fornell-Larcker criterion

compares the square root of the AVE of each factor to its relationship with other factors in the scale (Fornell & Larcker, 1981). To satisfy the criteria of discriminant validity, the square root of the AVE of each factor must be greater than its relationship with other factors in the scale. The data meet the basic assumptions of construct validity, and the results of the item loadings, AVE, HTMT, and Fornell-Larcker criterion are presented in Table 4.3, Table 4.4. and Table 4.5 respectively.

Table 4.3: Construct Reliability, Convergent Validity, and Item Multicollinearity

Items	Construct Name	Cronbach's Alpha	Composite Reliability (CR)	Construct Loadings	Average Variance Extracted (AVE)	Variance Inflation factor
CNNV1	Connectivity	0.905	0.901	0.826	0.605	2.607
CNNV2				0.811		2.553
CNNV3				0.825		2.395
CNNV4				0.817		2.203
CNNV5				0.719		1.998
CNNV6				0.651		1.878
CONS1	Consistency	0.901	0.901	0.831	0.694	2.499
CONS2				0.813		2.465
CONS3				0.85		2.632
CONS4				0.838		2.594
CS1	Customer Satisfaction	0.904	0.901	0.883	0.696	2.052
CS2				0.876		2.494
CS3				0.889		2.609
CS4				0.868		1.584
FLEX1	Flexibility	0.906	0.904	0.828	0.654	2.435

FLEX2				0.835		3.263
FLEX3				0.832		3.019
FLEX4				0.813		2.765
FLEX5				0.73		1.726
HM1	Hedonic motivation	0.892	0.891	0.903	0.731	2.625
HM2				0.907		2.564
HM3				0.907		2.66
ICS1	Integrated customer service	0.899	0.897	0.843	0.635	2.307
ICS2				0.864		2.644
ICS3				0.876		2.716
ICS4				0.866		2.631
ICS5				0.825		2.102
IINFO1	Integrated information	0.911	0.911	0.834	0.718	2.357
IINFO2				0.837		2.296
IINFO3				0.852		2.322
IINFO4				0.817		2.19
IINFO5				0.865		2.666
INTG1	Integration	0.909	0.908	0.836	0.664	2.36
INTG2				0.851		3.033
INTG3				0.853		2.977
INTG4				0.849		2.924
IPPP1	Integrated product, pricing and promotion	0.917	0.917	0.845	0.648	2.479
IPPP2				0.810		2.143
IPPP3				0.839		2.425
IPPP4				0.844		2.471

IPPP5				0.845		2.523
IPPP6				0.862		2.719
PER1	Personalisation	0.916	0.916	0.847	0.732	3.295
PER2				0.878		2.869
PER3				0.865		2.835
PER4				0.831		2.992
PR1	Perceived risk	0.83	0.821	0.837	0.606	1.857
PR2				0.879		1.935
PR3				0.855		1.745
PT1	Perceived trust	0.901	0.900	0.836	0.644	2.252
PT2				0.833		2.216
PT3				0.853		2.504
PT4				0.847		2.366
PT5				0.860		2.559
RPI1	Repurchase Intention	0.899	0.899	0.851	0.748	2.665
RPI2				0.882		2.829
RPI3				0.861		2.854
WOM1	Word-of-Mouth Intention	0.891	0.888	0.833	0.615	1.636
WOM2				0.687		2.28
WOM3				0.787		2.57
WOM4				0.781		2.477
WOM5				0.825		2.705

Source: Primary Data

Table 4.4: HTMT Ratio for Discriminant Validity

	CNNV	CONS	CS	FLEX	HM	IINFO	INTG	ICS	IPPP	PER	PR	RPI
CONS	0.737											
CS	0.746	0.662										
FLEX	0.746	0.77	0.633									
HM	0.399	0.472	0.374	0.455								
IINFO	0.695	0.732	0.619	0.747	0.495							
INTG	0.604	0.699	0.543	0.714	0.538	0.635						
ICS	0.747	0.755	0.659	0.735	0.456	0.703	0.626					
IPPP	0.775	0.793	0.692	0.772	0.528	0.791	0.624	0.785				
PER	0.621	0.751	0.586	0.702	0.537	0.673	0.758	0.655	0.694			
PR	0.444	0.437	0.445	0.348	0.042	0.321	0.144	0.332	0.455	0.233		
PT	0.718	0.724	0.596	0.72	0.535	0.717	0.643	0.731	0.736	0.632	0.234	
RPI	0.617	0.61	0.775	0.592	0.44	0.596	0.512	0.614	0.635	0.533	0.267	0.582
WOM	0.676	0.697	0.583	0.693	0.526	0.667	0.605	0.661	0.714	0.609	0.213	0.699

Source: Primary Data

Table 4.5: Fornell- Larcker Criterion for Discriminant Validity

	CNNV	CONS	CS	FLEX	HM	IINFO	INTG	ICS	IPPP	PER	PR	PT	RPI	WOM
CNNV	0.778													
CONS	0.739	0.833												
CS	0.742	0.663	0.835											
FLEX	0.746	0.771	0.631	0.809										
HM	0.397	0.472	0.374	0.454	0.855									
IINFO	0.697	0.732	0.619	0.747	0.495	0.797								
INTG	0.606	0.699	0.544	0.713	0.537	0.636	0.847							
ICS	0.748	0.755	0.66	0.733	0.457	0.704	0.627	0.815						
IPPP	0.774	0.793	0.691	0.77	0.529	0.791	0.623	0.785	0.805					
PER	0.623	0.751	0.585	0.701	0.538	0.675	0.758	0.656	0.694	0.856				
PR	-0.443	-0.436	-0.444	-0.348	-0.009	-0.32	-0.146	-0.333	-0.455	-0.235	0.779			
PT	0.717	0.724	0.597	0.72	0.535	0.718	0.643	0.731	0.737	0.633	-0.237	0.802		
RPI	0.616	0.61	0.778	0.59	0.44	0.596	0.511	0.614	0.634	0.534	-0.266	0.582	0.865	
WOM	0.678	0.698	0.587	0.692	0.526	0.668	0.606	0.662	0.714	0.611	-0.216	0.7	0.62	0.784

Source: Primary Data

4.4.3 Multicollinearity

The multicollinearity among the items measuring different factors influencing OCCE is examined using the Variance Inflation Factor (VIF) estimates. Multicollinearity refers to high correlation among items. The result of the multicollinearity analysis is reported in Table 4.3. The result reported that the VIF measures of all the included items in the study are found to be less than 5, which is adequate as per Kock (2015). Thus, it can be concluded that the responses received against the different items measuring factors influencing omnichannel customer experience are free from the problem of multicollinearity.

4.4.4 Common Method Bias

Common method bias can occur when both the independent and dependent variables are measured within one survey, using the same (common) response method (ordinal scales) (Kock et al., 2021). If the research instrument is drafted in a manner in which there is a possibility of bias in the responses, it will lead to biased conclusions. In order to ensure that the results are free from bias, the responses received from the survey are examined with the help of Harman's single-factor test. The Harman's single-factor test is applied using exploratory factor analysis, with the condition that a single factor is to be extracted as a result of a principal component analysis (PCA). The result reported in Table 4.6 shows that the single extracted factor explains only 40.818% of the variance of the entire responses against all the items included in the study, and according to Podsakoff et al. (2003) it should be less than 50%. Thus, it can be concluded that the responses received in the study are free from bias caused by CMB.

Table 4.6: Results of CMB using Harman single factor method

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	28.165	40.818	40.818	28.165	40.818	40.818
2	4.702	6.814	47.633			
3	3.051	4.422	52.055			
4	2.052	2.974	55.029			
5	1.846	2.676	57.705			
6	1.616	2.342	60.047			

7	1.447	2.097	62.145			
8	1.399	2.027	64.172			
9	1.275	1.848	66.020			
10	1.206	1.748	67.768			
11	1.097	1.590	69.358			
12	.991	1.436	70.794			
13	.915	1.326	72.120			
14	.855	1.240	73.360			
15	.807	1.170	74.529			
16	.614	.890	75.419			
17	.606	.878	76.298			
18	.568	.823	77.121			
19	.550	.797	77.917			
20	.522	.757	78.674			
21	.501	.726	79.401			
22	.484	.702	80.103			
23	.474	.686	80.789			
24	.458	.663	81.452			
25	.434	.629	82.082			
26	.426	.617	82.699			
27	.414	.599	83.298			
28	.403	.584	83.882			
29	.392	.568	84.450			
30	.389	.563	85.013			
31	.380	.551	85.564			
32	.377	.546	86.111			
33	.364	.528	86.639			
34	.361	.523	87.162			
35	.345	.499	87.662			
36	.341	.494	88.155			
37	.332	.481	88.637			
38	.329	.477	89.114			

39	.326	.473	89.586			
40	.315	.457	90.044			
41	.313	.454	90.498			
42	.308	.446	90.944			
43	.299	.434	91.378			
44	.296	.430	91.808			
45	.287	.416	92.224			
46	.283	.410	92.634			
47	.274	.397	93.030			
48	.272	.394	93.424			
49	.269	.390	93.814			
50	.266	.386	94.200			
51	.260	.377	94.577			
52	.258	.374	94.952			
53	.252	.365	95.317			
54	.250	.362	95.679			
55	.242	.351	96.030			
56	.233	.338	96.368			
57	.227	.329	96.697			
58	.225	.326	97.023			
59	.217	.315	97.338			
60	.211	.305	97.643			
61	.204	.295	97.938			
62	.200	.289	98.227			
63	.192	.279	98.506			
64	.188	.273	98.778			
65	.180	.261	99.040			
66	.175	.254	99.294			
67	.173	.251	99.545			
68	.163	.237	99.782			
69	.151	.218	100.000			

Source: Primary Data Extraction Method: Principal Component Analysis.

4.5 Antecedents of Omnichannel Customer Experience (OCCE)

The six antecedents, namely integrated product, pricing and promotion, integrated information, integrated customer service, perceived risk, perceived trust, and hedonic motivation, are assumed to influence OCCE. These factors are included in the structural model as exogenous constructs, and OCCE is treated as the endogenous construct. The structural model (Figure 4.1) is examined with the help of Structural equation modelling using the SmartPLS 4 software.

To evaluate the statistical significance of the hypothesised relationships, a non-parametric bootstrapping analysis was conducted in SmartPLS 4 using 5,000 resamples and a two-tailed test at p = 0.05. The "no sign-*change*" option and bias-corrected confidence intervals were adopted to ensure robust parameter estimation. For each path, standardised coefficients, t-statistics, p-values, and 95% confidence intervals were generated. The result of the hypothesis testing is reported in Table 4.7. The following hypotheses are examined:

H1: The selected antecedents (integrated product, pricing, and promotion, integrated information, integrated customer service, perceived risk, perceived trust, and hedonic motivation) significantly influence omnichannel customer experience.

H1a: Integrated product, pricing, and promotion positively influences OCCE.

H1b: Integrated information positively influences OCCE.

H1c: Integrated customer service positively influences OCCE.

H1d: Perceived risk negatively influences OCCE.

H1e: Perceived trust positively influences OCCE.

H1f: Hedonic motivation positively influences OCCE.

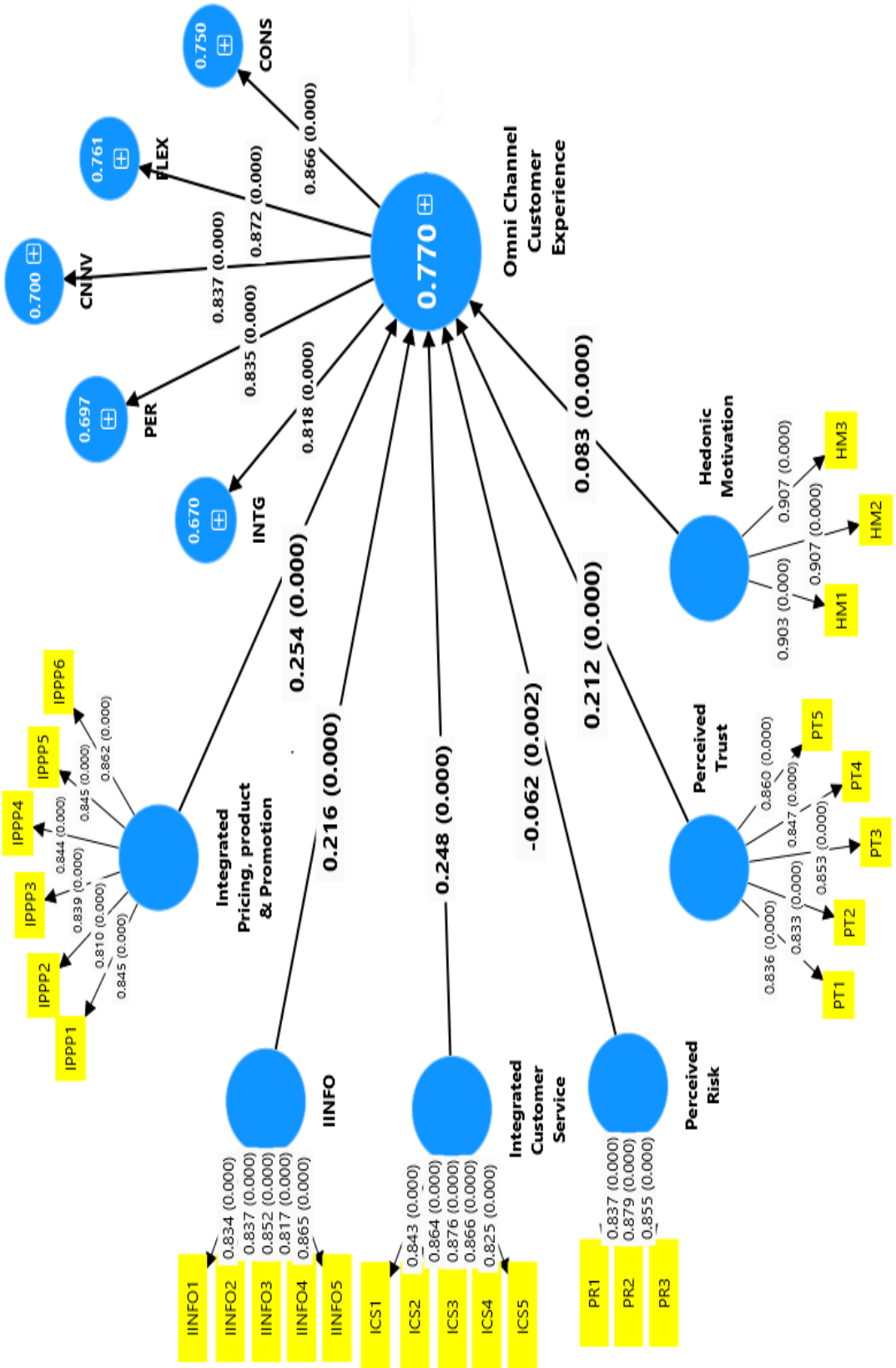


Figure 4.1: Antecedents of OCCE

Table 4.7: Antecedents of OCCE

Hypothesis	Exogeneous Constructs	Endogenous Construct	Path Coefficient	T-statistic	R^2	Conclusion
H1a	Integrated Product, Pricing and Promotion	Omnichannel Customer Experience	0.253	7.065**	77%	Supported
H1b	Integrated information		0.216	6.274**		Supported
H1c	Integrated Customer Service		0.249	7.864**		Supported
H1d	Perceived Risk		-0.063	2.925**		Supported
H1e	Perceived Trust		0.211	5.664**		Supported
H1f	Hedonic Motivation		0.08	3.551**		Supported

Source: Primary Data *** Significant at 5% Level of Significance*

4.6 Results

The result of the SEM analysis supported the hypothesis that **"The selected antecedents (integrated product, pricing, and promotion, integrated information, integrated customer service, perceived risk, perceived trust, and hedonic motivation) significantly influence OCCE"**. The path coefficients in the case of integrated product, pricing, and promotion, integrated information, integrated customer service, perceived trust, and hedonic motivation are found to be significant and positive. However, in the case of perceived risk, the path coefficient is significant but negative. The highest path coefficient is found in the case of integrated product, pricing, and promotion (path coefficient = 0.253), followed by integrated customer service (path coefficient = 0.249), integrated information (path coefficient = 0.216), and perceived trust (path coefficient = 0.211), indicating the maximum positive influence on OCCE. Whereas hedonic motivation is found to have the least but significant impact on OCCE (path

coefficient = 0.08). In case of perceived risk, a significant, however, negative impact is found on OCCE (path coefficient = -0.063). The R-squared signifies that around 77% of the variance of OCCE is explained with the help of the structural model.

4.7 Discussion

Integrated product, pricing, and promotion has the highest impact on OCCE. This is partly in line with previous research (Lee, 2020) which suggested that integrated promotion impacts customer satisfaction but not integrated product and pricing. However, the above findings challenge this by demonstrating that customers in the technical consumer goods sector expect product and price transparency across all channels to enhance trust and reduce confusion. Therefore, retailers must ensure price and product standardisation across online and offline channels to optimise customer experience.

The study confirms that integrated information positively influences OCCE, suggesting that when customers can easily access order history, product availability, and service records across channels, they experience less cognitive overload (Ngo et al., 2024) and a greater sense of control (Wathieu et al., 2002). Given that technical consumer goods involve high-involvement purchases, customers invest significant effort in gathering information before making decisions (Arora & Sharma, 2018).

Integrated customer service is also found to positively impact OCCE. Verhoef et al. (2009) suggest that customer service is a critical touchpoint in shaping the overall brand experience. This is particularly relevant in high-involvement product categories, where customers require after-sales support, installation assistance, and warranty management. Perceived trust and perceived risk have also emerged as antecedents (negative for perceived risk) of OCCE. Trust has been studied as a second-order construct in previous research (Bahri et al., 2023; Rahman et al., 2022; Yen, 2023; Zhang et al., 2018). This study empirically determined that perceived trust is one of the antecedents/drivers of OCCE, similar to the research carried out by Kazancoglu & Aydin (2018). The findings suggest that maintaining brand transparency, ensuring data security, and delivering on service promises fosters an experiential advantage, ultimately improving customer satisfaction in omnichannel shopping. Perceived risk has also emerged as an antecedent with a negative impact on OCCE, similar to previous research (Kazancoglu & Aydin, 2018; Nguyen, 2021; Shi et al., 2020). Retailers must address these concerns by enhancing transaction transparency, ensuring consistency in return policies, and

safeguarding customer data. This strategy reinforces enhancing trust and reducing risk as suggested by Venkatesh et al. (2012) in their technology adoption model.

Hedonic motivation, though significant, has had the least impact (path coefficient = 0.08) on OCCE, suggesting that most customers do not prioritise pleasure and enjoyment while shopping for technical consumer goods with omnichannel retailers. This is in contrast to previous research (Jayasingh et al., 2022; Kaur & Sandhu, 2022; Kazancoglu & Aydin, 2018; Mosquera et al., 2018; Tyrväinen et al., 2020), which showed that hedonic motivation has a strong and significant impact on customer experiences in omnichannel frameworks in sectors such as fashion, grocery, and sporting goods. This study demonstrates that for technical consumer goods, utilitarian motivations may be more crucial than hedonic motivations. However, retailers could still enhance the experiential appeal by integrating personalised recommendations, virtual try-ons, or gamified interactions, which have been shown to increase engagement with omnichannel platforms (Choi et al., 2020).

4.8 Summary

The above discussion empirically validated that omnichannel customer experience in the technical consumer goods sector is primarily driven by structural integration and experiential factors. Integrated product, pricing and promotion, integrated customer service, integrated information, and perceived trust emerged as the strongest positive predictors, while perceived risk exerted a negative influence. Hedonic motivation had a modest but significant effect, reflecting the utilitarian orientation of high-involvement purchases. The model explained 77% of the variance in OCCE, confirming its strong explanatory power.

CHAPTER 5
MODERATING EFFECT OF DEMOGRAPHICS

5.1 Introduction

This chapter presents a detailed analysis of Objective 2, which examines the moderating role of demographics - gender, age, income, and education- on the relationship between antecedents and omnichannel customer experience in the technical consumer goods sector. It further presents the results of the objective with respect to the moderating effect of the stated demographics in the relationship between the key antecedents and omnichannel customer experience.

This objective examines the moderating effect of gender, age, income and education in the relationship between the six antecedents and OCCE. The multi-group analysis (MGA) in SmartPLS 4 is used to compare the slope coefficients of the predefined groups in the case of gender, age, and income. A moderating effect is said to exist if the differential slope coefficient between the groups is found statistically significant. The analysis examines whether the relationship between the antecedents and OCCE is stronger, weaker or unchanged when the sample is split by gender, age and income. For the purpose of the analysis, the defined groups are Gender (male and female), Age (18 to 30 years and 31-45 years, 18 to 30 years and above 45 years, 31-45 years and above 45 years), and Income (less than Rs 5 lakhs and Rs 5 lakhs – Rs 10 lakhs, less than Rs 5 lakhs and above Rs 10 lakhs, and Rs 5 – Rs 10 lakhs and above Rs 10 lakhs).

However, in the case of education, since there are more than four categories, MGA cannot be used, and therefore, the moderating effect is examined through the interaction variable, which is created between education and each antecedent. Under this approach, a moderating effect is said to exist if the slope coefficients of the interaction variable (Edu x Xi) for the different relationships are found statistically significant, indicating that changes in education levels alter the impact of the antecedents on OCCE. Education is defined in terms of four categories: undergraduate, graduate, post-graduate, and professionally qualified.

5.2 Moderating Effect of Gender

The following hypotheses are examined using the group moderation effect:

H2a: The gender of the consumer moderates the relationship between the selected antecedents and OCCE.

H2ai: Gender of the consumer moderates the relationship between IPPP and OCCE.

H2aii: Gender of the consumer moderates the relationship between IINFO and OCCE.

H2aiii: Gender of the consumer moderates the relationship between ICS and OCCE.

H2aiv: Gender of the consumer moderates the relationship between PT and OCCE.

H2av: Gender of the consumer moderates the relationship between PR and OCCE.

H2avi: Gender of the consumer moderates the relationship between HM and OCCE.

Table 5.1: Moderating effect of Gender

No.	Relationship	Path Coefficient-Male (t-statistic)	Path Coefficient - Females (t-statistic)	Diff. in Path Coeff (M -F)	P - Value	Conclusion
H2ai	**IPPP → OCCE**	0.303 (6.468**)	0.067 (2.085**)	0.236	**0.000**	**Supported**
H2aii	IINFO → OCCE	0.163 (3.85**)	0.145 (3.658**)	0.018	0.789	Not Supported
H2aiii	**ICS → OCCE**	0.158 (4.491**)	0.386 (8.322**)	-0.228	**0.000**	**Supported**
H2aiv	PT → OCCE	0.186 (4.009**)	0.154 (3.416**)	0.032	0.579	Not Supported
H2av	PR → OCCE	-0.043 (1.389)	-0.059 (2.937**)	0.016	0.631	Not Supported
H2avi	**HM → OCCE**	0.045 (1.664)	0.167 (5.912**)	-0.122	**0.002**	**Supported**

Source: Primary Data *** Significant at 5% Level of Significance*

5.2.1 Results

The results of the group moderation effect supported the hypothesis **"The gender of the consumer moderates the relationship between the selected antecedents and OCCE"** for

the relationships between Hedonic Motivation → OCCE, Integrated Customer Service → OCCE and Integrated Product, Pricing, and Promotion → OCCE. In case of the relationship between hedonic motivation and OCCE, the path coefficient was found to be higher in case of females (path coefficient = 0.167) as compared to the male consumers (path coefficient=0.045). Thus, it can be concluded that the impact of hedonic motivation on OCCE is found to be significantly stronger among female consumers than among male consumers. Similarly, in the case of the relationship between integrated customer service and OCCE, the result reported a significantly stronger impact for female consumers as compared to male consumers. However, in the case of the relationship between integrated product, pricing and promotion and OCCE, the impact was found to be significantly stronger in the case of male consumers as compared to female consumers. For the remaining relationships, no significant moderation was found, indicating the absence of the moderating effect of gender.

5.2.2 Discussion

Hedonic motivation has been widely documented as a key factor influencing online shopping behaviour, especially for female consumers (Hirschman & Holbrook, 1982). Retailers should craft emotion-rich, immersive online experiences for female shoppers—especially in high-touch electronics like smart kitchen appliances or personal gadgets. For males, the focus may need to shift more towards utility or technical information.

Females are generally more responsive to relational and emotional service quality (Wolfinbarger & Gilly, 2003). They often seek reassurance in post-purchase services, especially for durable goods like appliances. Female consumers need accessible and proactive service options, such as live chat, product setup guidance, and after-sales support. For males, while still relevant, service expectations may skew toward efficiency and resolution speed.

Integrated product, pricing, and promotion have been shown to strongly influence consumer behaviour, especially for male consumers, who may prioritise price sensitivity more than females (Kim et al., 2008). For women, while promotions are still influential, they may place more importance on other factors, such as product quality or customer service, as seen earlier.

5.3 Moderating Effect of Age

The following hypotheses are examined using the group moderation effect:

H2b: The age of the consumer moderates the relationship between the selected antecedents and OCCE.

H2bi: Age of the consumer moderates the relationship between IPPP and OCCE.

H2bii: Age of the consumer moderates the relationship between IINFO and OCCE.

H2biii: Age of the consumer moderates the relationship between ICS and OCCE.

H2biv: Age of the consumer moderates the relationship between PT and OCCE.

H2bv: Age of the consumer moderates the relationship between PR and OCCE.

H2bvi: Age of the consumer moderates the relationship between HM and OCCE.

Table 5.2: Individual slope coefficients

Relationship	Path Coeff (t value)		
	18 to 30 years	**31-45 years**	**Above 45 Years**
IPPP → OCCE	0.213 (4.24**)	0.218 (4.287**)	0.094 (2.399**)
IINFO → OCCE	0.110 (3.056**)	0.112 (2.175**)	0.746 (14.765**)
ICS → OCCE	0.164 (4.051**)	0.287 (5.28**)	0.059 (1.343)
PT → OCCE	0.232 (3.542**)	0.236 (4.444**)	0.07 (1.727)
PR → OCCE	-0.048 (1.532)	-0.075 (2.322**)	-0.003 (0.009)
HM → OCCE	0.131 (3.749**)	0.042 (1.409)	0.016 (0.804)

Source: Primary Data *** Significant at 5% Level of Significance*

Table 5.3: Moderating effect of Age

No.	Relationship	Diff. in path Coeff (18 -30 years - 31 to 45 years)	Conclusion	Diff. in path Coeff (18 to 30 years - Above 45 years)	Conclusion	Diff. in path Coeff (31-45 years - Above 45 years)	Conclusion
H2bi	IPPP → OCCE	-0.005 (0.998)	Not Supported	0.119 (0.059)	Not Supported	0.124 (0.052)	Not Supported
H2bii	IINFO → OCCE	-0.002 (0.994)		**-0.636 (0.000)**	**Supported**	**-0.634 (0.000)**	**Supported**
H2biii	ICS → OCCE	-0.123 (0.071)		0.105 (0.061)	Not Supported	**0.228 (0.000)**	**Supported**
H2biv	PT → OCCE	-0.004 (0.901)		**0.162 (0.029)**	**Supported**	**0.166 (0.009)**	**Supported**
H2bv	PR → OCCE	0.027 (0.509)		-0.045 (0.253)	Not Supported	-0.072 (0.079)	Not Supported
H2bvi	HM → OCCE	0.089 (0.054)		**0.115 (0.006)**	**Supported**	0.026 (0.546)	Not Supported

Source: Primary Data ***Significant at 5% level of significance*

5.3.1 Results

5.3.1.1 18 to 30 years and 31-45 years

No significant group-moderation effect was observed between the age groups 18-30 years and 31–45 years for any of the relationships included in the model. Therefore, the hypothesis that **"The age of the consumer moderates the relationship between the selected antecedents and OCCE"** is not supported for this comparison. This indicates that the relationships between the selected antecedents and OCCE are statistically similar across the age groups 18 to 30 years and 31-45 years.

5.3.1.2 18 to 30 years and Above 45 years

The results of the group moderation effect for the pair (18 to 30 years and Above 45 years) supported the hypothesis that **"The age of the consumer moderates the relationship between the selected antecedents and OCCE"** for the relationships between Hedonic Motivation → OCCE, Integrated Information → OCCE, and Perceived Trust → OCCE. In the case of the relationship between hedonic motivation and OCCE, the impact was found to be significantly stronger in the case of consumers in the age group of 18-30 years of age, as compared to consumers above 45 years of age. Similarly, in the case of the relationship between integrated information and OCCE, the results reported a significantly stronger impact for consumers in the age group of above 45 years of age as compared to young consumers in the age group of 18-30 years of age. However, in the case of the relationship between perceived trust and OCCE, the impact was found to be significantly stronger in the case of consumers in the age group of above 45 years as compared to young consumers in the age group of 18-30 years. For the remaining relationships, no significant moderation was found.

5.3.1.3 31-45 years and Above 45 years

For the comparison between consumers aged 31–45 years and those above 45 years, The results of the group moderation effect for the pair **(31-45 years and Above 45 years)** supported the hypothesis that **"The age of the consumer moderates the relationship between the selected antecedents and OCCE"** for the relationships between Integrated Information → OCCE, Integrated Customer Service → OCCE and Perceived Trust → OCCE. In the case of the relationship between integrated information and OCCE, the impact was found to be significantly stronger in the case of consumers in the age group of 31-45 years as compared to consumers above 45 years of age. However, in case of the relationship between integrated customer service and OCCE, the results reported a significantly stronger impact for consumers in the age group of above 45 years of age as compared to young consumers in the age group of 31-45 years of age. Also, in the case of the relationship between perceived trust and OCCE, the impact was found to be significantly stronger in the case of consumers in the age group of above 45 years as compared to young consumers in the age group of 31-45 years. For the remaining relationships, no significant moderation was found.

5.3.2 Discussion

With respect to hedonic motivation, younger consumers (especially Gen Z and Millennials) are more influenced by hedonic and experiential values in shopping. They seek enjoyment, gamification, and immersive digital interactions in omnichannel journeys (Kusumawardani et al., 2023; Tyrväinen et al., 2020). Retailers should invest in emotionally engaging and playful omnichannel experiences for younger consumers, especially for electronics and gadgets, where experiential browsing is common.

With regard to integrated information, younger consumers are digital natives, used to seamlessly switching between online and offline channels and expecting consistent information across them. Older consumers (>45) are more likely to find fragmented or inconsistent information frustrating (Pantano et al., 2020). Juaneda-Ayensa, et al. (2018) suggest that older customers value information quality more due to their more deliberate decision-making process, especially for expensive goods like electronics. However, this may be outweighed by usability issues and digital fatigue in this age group.

Older customers have higher expectations for human-centred service and are less tolerant of disjointed experiences (Zeithaml et al., 2002). Human-assisted omnichannel service (call centre agents with access to online and in-store purchase history), CRM systems that allow seamless transitions across touchpoints for older customers could enhance their omnichannel experience.

Perceived trust has a significant impact on OCCE in the case of customers in the 18-30 years and 31- 45 years segments. Surprisingly, in the case of individuals in the age group of above 45 years, perceived trust does not have a significant effect. The effect of integrated product, pricing, and promotion on OCCE is significant across all age groups, and there are no significant differences among the groups. Across all age groups, perceived risk is a universal deterrent to online and omnichannel adoption (Featherman & Pavlou, 2003).

5.4 Moderating Effect of Income

The following hypotheses are examined using the group moderation effect:

H2c: The income of the consumer moderates the relationship between the selected antecedents and OCCE.

H2ci: Income of the consumer moderates the relationship between IPPP and OCCE.

H2cii: Income of the consumer moderates the relationship between IINFO and OCCE.

H2ciii: Income of the consumer moderates the relationship between ICS and OCCE.

H2civ: Income of the consumer moderates the relationship between PT and OCCE.

H2cv: Income of the consumer moderates the relationship between PR and OCCE.

H2cvi: Income of the consumer moderates the relationship between HM and OCCE.

Table 5.4: Individual slope coefficients

Relationship	Path Coeff (t value)		
	Less than Rs 5 lakhs	**5 to 10 lakhs**	**Above 10 lakhs**
IPPP → OCCE	0.068 (1.663)	0.197 (4.246**)	0.316 (5.154**)
IINFO → OCCE	0.175 (4.598**)	0.214 (4.744**)	0.13 (2.126**)
ICS → OCCE	0.089 (2.174**)	0.219 (4.83**)	0.282 (5.103**)
PT → OCCE	0.382 (7.934**)	0.185 (4.078**)	0.081 (1.39)
PR → OCCE	-0.066 (1.297)	-0.03 (0.974)	-0.072 (2.413**)
HM → OCCE	0.043 (1.292)	0.077 (2.888**)	0.077 (2.446**)

Source: Primary Data *** Significant at 5% Level of Significance*

Table 5.5: Moderating effect of Income

No.	Relationship	Diff. in path Coeff (< 5 Lakhs – 5 to 10 lakhs)	Conclusion	Diff. in path Coeff (<5 lakhs - Above 10 lakhs)	Conclusion	Diff. in path Coeff (5 to 10 lakhs - Above 10 lakhs)	Conclusion
H2ci	IPPP → OCCE	**-0.129 (0.029)**	**Supported**	**-0.248 (0.000)**	**Supported**	-0.119 (0.122)	Not Supported
H2cii	IINFO → OCCE	-0.039 (0.569)	Not Supported	0.045 (0.432)	Not Supported	0.084 (0.244)	
H2ciii	ICS → OCCE	**-0.13 (0.033)**	**Supported**	**-0.193 (0.006)**	**Supported**	-0.063 (0.365)	

H2civ	PT → OCCE	**0.197 (0.005)**	**Supported**	**0.301 (0.000)**	**Supported**	0.104 (0.127)	
H2cv	PR → OCCE	0.096 (0.113)	Not Supported	**0.138 (0.020)**	**Supported**	0.042 (0.274)	
H2cvi	HM → OCCE	-0.034 (0.498)	Not Supported	-0.034 (0.485)	Not Supported	0.00 (0.932)	

Source: Primary Data ***Significant at 5% level of significance*

5.4.1 Results

5.4.1.1 Less than Rs 5 lakhs and Rs 5 lakhs – Rs 10 lakhs

A significant group moderation effect was observed between the income groups of less than Rs 5 lakhs and Rs 5 lakhs – Rs 10 lakhs for the relationships Integrated Customer Service → OCCE, Integrated PPP → OCCE, and Perceived Trust → OCCE. Therefore, the hypothesis that **"The income of the consumer moderates the relationship between the selected antecedents and OCCE"** is supported for these relationships. The effect of Integrated Customer Service on OCCE was significantly stronger among consumers in the income group of Rs 5 lakhs – Rs 10 lakhs than among those earning less than Rs 5 lakhs. A similar pattern was found for Integrated PPP → OCCE, where the impact was significantly stronger for consumers in the Rs 5 lakhs – Rs 10 lakhs income group. In contrast, the effect of Perceived Trust on OCCE was significantly stronger among consumers earning less than Rs 5 lakhs than among those in the Rs 5 lakhs – Rs 10 lakhs category. No significant moderation effect was found for the remaining relationships.

5.4.1.2 Less than Rs 5 lakhs and Above Rs 10 lakhs

For the comparison between consumers earning less than Rs 5 lakhs and those earning above Rs 10 lakhs, income significantly moderated four relationships: Integrated Customer Service → OCCE, Integrated PPP → OCCE, Perceived Risk → OCCE, and Perceived Trust → OCCE. Thus, the hypothesis that **"The income of the consumer moderates the relationship between the selected antecedents and OCCE"** is supported for these relationships. The effect of Integrated Customer Service on OCCE was significantly stronger among consumers in the income group of above Rs 10 lakhs than among those earning less than Rs 5 lakhs. Likewise, the impact of Integrated PPP on OCCE was significantly stronger for consumers in the above Rs 10 lakhs category. However, Perceived Trust → OCCE was significantly stronger among

consumers earning less than Rs 5 lakhs than among those in the highest income group. In the case of Perceived Risk → OCCE, the highest effect was observed among consumers earning less than Rs 5 lakhs, and this effect was negative when compared with consumers in the stronger income categories. No significant moderation was found for the remaining relationships.

5.4.1.3 Rs 5 – Rs 10 lakhs and Above Rs 10 lakhs

The results of the group moderation effect do not support the hypothesis that **"The income of the consumer moderates the relationship between the selected antecedents and OCCE"** for all the included relationships. Thus, it can be concluded that all the relationships between the selected antecedents and OCCE are statistically similar for the income groups Rs 5 – Rs 10 lakhs and Above Rs 10 lakhs.

5.4.2 Discussion

The influence of hedonic motivation (enjoyment or pleasure derived from shopping) on omnichannel experience does not vary by income. This aligns with Verhoef et al. (2015), who argue that experiential components like fun or enjoyment are universally important in retail experiences, regardless of income.

All income groups value seamless access to product and inventory information similarly in omnichannel settings. Lemon & Verhoef (2016) note that integrated information enhances customer experience consistently, but does not find significant demographic variation in its effect.

With respect to integrated customer service, affluent customers value seamless, cross-channel service interactions more—perhaps due to higher expectations regarding convenience, responsiveness, and personalisation across digital and physical touchpoints. According to Pantano & Gandini (2017), high-income customers engage more frequently with multi-channel environments and are more sensitive to service consistency, particularly when moving between online and offline channels. However, low-income consumers may still value human assistance more due to lower digital literacy, though they may have limited exposure to omnichannel touchpoints.

Concerning integrated product, pricing, and promotion, the higher the income group, the greater the impact of product, pricing, and promotion integration on their omnichannel experience. This

result challenges conventional assumptions, as lower-income consumers are typically more price-sensitive (Liu & Zheng, 2023).

With respect to perceived risk, Wang et al. (2022) indicate that high-income consumers exhibit higher expectations of security and control, especially with digital payment systems and data privacy. They may penalise a brand more strongly for perceived lapses in return policies, product damage, or channel confusion. Risk mitigation mechanisms (e.g., robust return policies, secure payment, consistent privacy notices) are critical for retaining high-income segments, who are less tolerant of friction or uncertainty.

For lower-income consumers, trust becomes a crucial risk-reducer. Research in emerging e-commerce markets finds that economically constrained shoppers fear losing their money or personal data when using new channels like mobile or online commerce, and thus are hesitant to adopt them without strong assurances (Handoyo, 2024).

5.5 Moderating Effect of Education

The following hypotheses are examined using the interaction moderation effect method:

H2d: The education of the consumer moderates the relationship between the selected antecedents and OCCE.

H2di: Education of the consumer moderates the relationship between IPPP and OCCE.

H2dii: Education of the consumer moderates the relationship between IINFO and OCCE.

H2diii: Education of the consumer moderates the relationship between ICS and OCCE.

H2div: Education of the consumer moderates the relationship between PT and OCCE.

H2dv: Education of the consumer moderates the relationship between PR and OCCE.

H2dvi: Education of the consumer moderates the relationship between HM and OCCE.

Figure 5.1: Moderating effect of education

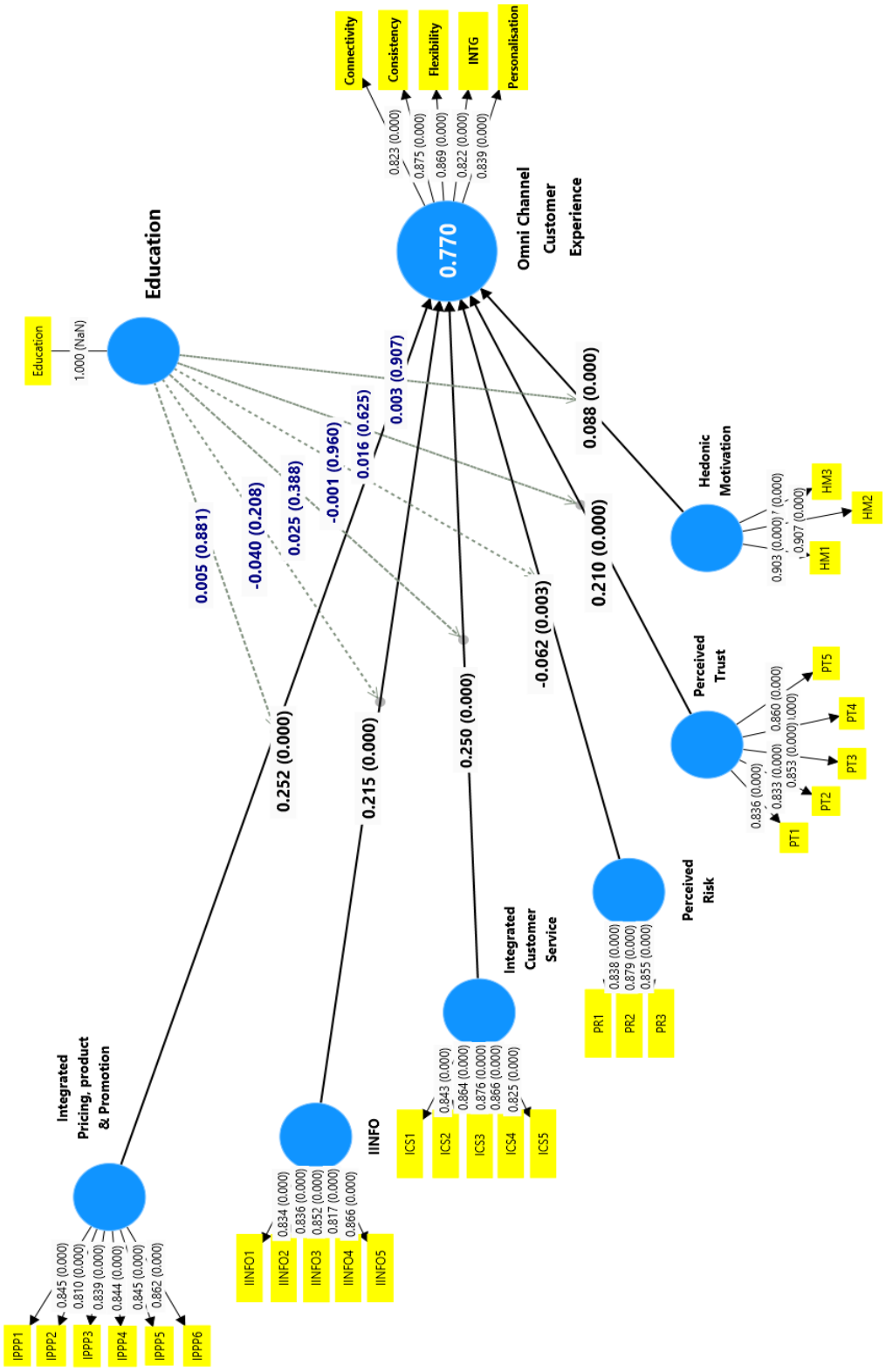


Table 5.6: Moderating effect of Education

Relationship	Path Coefficient	Standard deviation	T statistics	P values	Conclusion
Education → OCCE	-0.014	0.115	0.162	0.871	
IPPP → OCCE	0.252	0.089	2.295	0.000	
IINFO → OCCE	0.215	0.074	3.75	0.000	
ICS → OCCE	0.250	0.072	2.243	0.000	
Perceived Risk → OCCE	-0.062	0.053	1.963	0.003	
Perceived Trust → OCCE	0.210	0.093	1.964	0.000	
HM → OCCE	0.088	0.063	1.986	0.000	
H2di: Education x IPPP → OCCE	0.005	0.032	0.12	0.905	Not supported
H2dii: Education x IINFO → OCCE	-0.040	0.026	1.284	0.2	Not supported
H2diii: Education x ICS → OCCE	0.025	0.026	0.883	0.378	Not supported
H2div: Education x PR → OCCE	-0.001	0.018	0.029	0.977	Not supported
H2dv: Education x PT → OCCE	0.016	0.031	0.445	0.657	Not supported
H2dvi: Education x HM → OCCE	0.003	0.021	0.152	0.879	Not supported

Source: Primary Data *** Significant at 5% level of significance*

5.5.1 Results

The results of the interaction moderation effect do not support the hypothesis **"The education of the consumer moderates the relationship between the selected antecedents and OCCE".** The path coefficients indicating the impact of the selected and OCCE were found to be statistically insignificant. Thus, it can be concluded that the education level of the consumers does not moderate the relationship between antecedents and OCCE

5.5.2 Discussion

Education does not significantly shape how customers experience omnichannel shopping in the consumer electronics and home appliances industry. Instead, consistent service, information, price, emotional engagement, and risk reduction universally matter. So, brands should prioritise omnichannel consistency and emotional connection over demographic segmentation by education level.

5.6 Summary

The chapter examined whether key demographic variables—gender, age, income, and education—moderate the relationships between the six antecedents and omnichannel customer experience in the technical consumer goods sector. Multi-group analysis in SmartPLS 4 was used to examine the effects of gender, age, and income through pairwise group comparisons of path coefficients, while education was examined through the interaction effect. The chapter concludes that demographic influences on OCCE are selective rather than universal, with meaningful heterogeneity across gender, age and income—but not education—highlighting the need for nuanced, segment-specific omnichannel strategies.

CHAPTER 6
IMPACT OF ANTECEDENTS OF OMNICHANNEL CUSTOMER EXPERIENCE ON THE DIMENSIONS OF OMNICHANNEL CUSTOMER EXPERIENCE

6.1 Introduction

For the purpose of this study, omnichannel customer experience has been defined and operationalised in terms of five dimensions. This chapter outlines the analysis of objective 3, which examines the relationship between the antecedents and each of the dimensions of omnichannel customer experience and presents the results of the analysis.

This chapter discusses the impact of the antecedents of OCCE (hedonic motivation, integrated information, integrated customer service, integrated product, pricing, and promotion, perceived risk and perceived trust) on different dimensions of OCCE in the technical consumer goods sector. In the study, OCCE is defined in terms of five different dimensions, namely integration, personalisation, connectivity, flexibility, and consistency. The multiple regression approach is applied where the different dimensions of OCCE are assumed as dependent variables and the six different antecedents are considered as independent variables.

6.2 Correlation analysis

The correlation analysis is done to examine the relationship between the different constructs included in the regression analysis. The six antecedents of OCCE (hedonic motivation, integrated information, integrated customer service, integrated product, pricing, and promotion, perceived risk and perceived trust) and the five dimensions (integration, personalisation, connectivity, flexibility, and consistency) of OCCE are included to examine the Pearson

Correlation. The result of the correlation analysis reported the presence of significant correlation between the different constructs included in the analysis, except in the case of the relationship between perceived risk and hedonic motivation. The p-value of the Pearson correlation coefficient was found to be less than the 0.05 level of significance, except in the case of the relationship between perceived risk and hedonic motivation. Thus, it can be concluded that the antecedents of OCCE are significantly correlated with its dimensions. The result (Table 6.1) also reported that none of the correlations were found to be higher than 0.8, indicating the absence of a multicollinearity problem.

Table 6.1: Correlation analysis

	Integration	Personalisation	Connectivity	Flexibility	Consistency	Hedonic Motivation	Integrated information	Integrated Customer Service	Integrated Product, Pricing & Promotion	Perceived Risk	Perceived Trust
Integration	1										
Personalisation	.691** (0.000)	1									
Connectivity	.549** (0.000)	.565** (0.000)	1								
Flexibility	.648** (0.000)	.638** (0.000)	.673** (0.000)	1							
Consistency	.633** (0.000)	.681** (0.000)	.666** (0.000)	.696** (0.000)	1						

Hedonic Motivation	.485** (0.000)	.485** (0.000)	.358** (0.000)	.408** (0.000)	.422** (0.000)	1					
Integrated information	.576** (0.000)	.611** (0.000)	.627** (0.000)	.674** (0.000)	.659** (0.000)	.444** (0.000)	1				
Integrated Customer Service	.570** (0.000)	.598** (0.000)	.677**(0.000)	.665** (0.000)	.684** (0.000)	.411** (0.000)	.636** (0.000)	1			
Integrated Product, Pricing & Promotion	.570** (0.000)	.635** (0.000)	.705** (0.000)	.702** (0.000)	.721** (0.000)	.478** (0.000)	.718** (0.000)	.717** (0.000)	1		
Perceived Risk	-.127** (0.000)	-.205** (0.000)	-.384** (0.000)	-.301** (0.000)	-.378** (0.000)	-.008 (0.831)	-.277** (0.000)	-.289** (0.000)	-.397** (0.000)	1	
Perceived Trust	.583** (0.000)	.574** (0.000)	.647** (0.000)	.650** (0.000)	.652** (0.000)	.479** (0.000)	.646** (0.000)	.661** (0.000)	.670** (0.000)	-.205** (0.000)	1

Source: Primary Data

6.3 Multiple Regression Analysis: Integration vs Antecedents of OCCE

This section discusses the impact of the antecedents (hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust) of omnichannel customer experience on integration as one of the dimensions of omnichannel customer experience in the technical consumer goods sector. The multiple regression approach is applied, assuming integration as the dependent variable, and the six different antecedents are considered as independent variables. The following hypotheses are examined with the help of regression analysis:

H3a: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the integration dimension of OCCE.

H3ai: IPPP has a significant impact on Integration.

H3aii: IINFO has a significant impact on Integration.

H3aiii: ICS has a significant impact on Integration.

H3aiv: PT has a significant impact on Integration.

H3av: PR has a significant impact on Integration.

H3avi: HM has a significant impact on Integration.

Table 6.2: Multiple regression analysis: Integration v/s antecedents of OCCE

No.	Independent Variable	Dependent variable	Regression Coefficients	Standard Error	T-statistic	F-statistic	R^2
	(Constant)	Integration	.190	.250	.761	102.898**	47%
H3ai	IPPP		.116	.052	2.232**		
H3aii	IINFO		.206	.045	4.557**		
H3aiii	ICS		.210	.047	4.435**		
H3aiv	PT		.204	.046	4.445**		
H3av	PR		-.072	.034	-2.103**		
H3avi	HM		.183	.034	5.392**		

Source: Primary Data *** Significant at 5% Level of Significance*

6.3.1 Results

The results of the multiple regression analysis supported the proposed hypothesis that **"The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the integration dimension of OCCE"**. The slope coefficient is found to be the highest in the case of integrated customer service (0.210), followed by integrated information (0.206) and perceived trust (0.204), which are found to have the maximum impact on the integration dimension of OCCE. The F-statistic, which represents the goodness of fit of the regression model, is found to be 102.898, significant at a 5 % level of significance. The R-squared of the regression model is found to be 47%, which means the integration dimension of OCCE can be explained by 47 % with the help of the regression model or the six antecedents of OCCE.

6.3.2 Discussion

Hedonic motivation emerged as a significant positive predictor of integration ($\beta = 0.183$, $p < 0.001$), suggesting that consumers who derive enjoyment and experiential pleasure from the shopping process are more likely to perceive a seamless and cohesive channel experience. This finding is consistent with prior literature that emphasises the role of emotional and experiential elements in enhancing consumer engagement across multiple touchpoints (Verhoef et al., 2015; Lemon & Verhoef, 2016). The provision of integrated information was also found to be a significant driver of perceived integration ($\beta = 0.206$, $p < 0.001$). This supports earlier studies that highlight the importance of consistency and real-time access to accurate information across platforms as critical to fostering seamless customer journeys (Herhausen et al., 2015; Piotrowicz & Cuthbertson, 2014). Integrated customer service demonstrated the highest standardised coefficient among all predictors ($\beta = 0.210$, $p < 0.001$), indicating its paramount importance in delivering a unified omnichannel experience. This aligns with extant research, which underscores the value of consistent service delivery across channels in enhancing customer trust and satisfaction (Shankar et al., 2021). The construct of integrated product, pricing, and promotion also yielded a statistically significant relationship with integration ($\beta = 0.116$, $p = 0.026$), albeit with a lower coefficient compared to other variables. These findings reinforce the proposition that uniformity in core retail elements across channels mitigates consumer confusion and reinforces the perception of a cohesive brand experience (Melero et

al., 2016). Perceived risk was negatively associated with integration (β = 0.072, p = 0.036), indicating that lower levels of perceived risk enhance consumers' perceptions of system integration. This result is in line with previous work, which suggests that minimisation of risk through secure, transparent, and consistent channel features supports the development of trust in omnichannel environments (Frasquet & Miquel, 2017). Finally, perceived trust was found to be a strong predictor of integration (β = 0.204, p < 0.001), affirming its critical role in shaping consumer attitudes toward cross-channel coherence. This result corroborates prior studies that emphasise the importance of trust in encouraging deeper engagement within integrated retail ecosystems (Vannucci & Pantano, 2019).

6.3.3 Multiple Regression Analysis: Consistency vs Antecedents of OCCE

This section examines how the antecedents (hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust) of omnichannel customer experience impact consistency, which is one of the dimensions of omnichannel customer experience in the technical consumer goods sector. The multiple regression approach is applied, assuming consistency as the dependent variable, and the six different antecedents are considered as independent variables. The following hypotheses are examined with the help of regression analysis:

H3b: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the consistency dimension of OCCE.

H3bi: IPPP has a significant impact on Consistency.

H3bii: IINFO has a significant impact on Consistency.

H3biii: ICS has a significant impact on Consistency.

H3biv: PT has a significant impact on Consistency.

H3bv: PR has a significant impact on Consistency.

H3bvi: HM has a significant impact on Consistency.

Table 6.3: Multiple regression analysis: Consistency vs Antecedents of OCCE

No.	Independent Variable	Dependent variable	Regression Coefficient	Standard Error	T-statistic	F-statistic	R^2
	(Constant)	Consistency	1.023	.199	5.132**	195.99**	62.8%
H3bi	IPPP		.241	.041	5.834**		
H3bii	IINFO		.165	.036	4.593**		
H3biii	ICS		.236	.038	6.272**		
H3biv	PT		.191	.037	5.241**		
H3bv	PR		-.140	.027	-5.145**		
H3bvi	HM		.051	.027	1.892		

Source: Primary Data *** Significant at 5% Level of Significance*

6.3.4 Results

The findings of the multiple regression analysis support the proposed hypothesis that **"The antecedents of OCCE in the technical consumer goods sector (integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the consistency dimension of OCCE".** The slope coefficient is found to be highest in the case of integrated product, pricing, and promotion (0.241), followed by integrated customer service (0.236) and perceived trust (0.191), which are found to have the maximum impact on the consistency dimension of OCCE. The F-statistic represents the goodness of fit of the regression model and is found to be 195.992, significant at 5% level of significance. The R-squared of the regression model is found to be 62.8%, which means the consistency dimension of OCCE can be explained by 62.8% with the help of the regression model or the five antecedents of OCCE.

6.3.5 Discussion

Among the predictors, integrated product, pricing, and promotion ($\beta = 0.241$, $p < 0.001$) and integrated customer service ($\beta = 0.236$, $p < 0.001$) emerged as the most influential factors, underscoring the criticality of uniform offerings and standardised service delivery across

multiple channels. These findings are in alignment with the assertions of Lemon & Verhoef (2016) and Piotrowicz & Cuthbertson (2014), who highlight the strategic role of integration in fostering consistency and coherence in customer experiences. Integrated information (β = 0.165, $p < 0.001$) also significantly predicts consistency, emphasising that seamless access to timely and accurate information contributes to a unified customer journey (Brynjolfsson et al., 2013). Additionally, perceived trust (β = 0.191, $p < 0.001$) positively impacts consistency, consistent with the findings of Yang et al. (2024), where trust is deemed essential in reinforcing a cohesive omnichannel environment. Conversely, perceived risk exerts a significant negative effect (β = -0.140, $p < 0.001$), suggesting that uncertainties or inconsistencies—whether related to data security, transactional reliability, or service outcomes—undermine the perception of a consistent experience (Chatterjee et al., 2021). Interestingly, hedonic motivation is only marginally significant (β = 0.051, $p = 0.059$), indicating that while affective enjoyment may enhance satisfaction, it does not necessarily translate into perceived consistency, as previously noted by Verhoef et al. (2015).

6.4 Multiple Regression Analysis: Personalisation vs Antecedents of OCCE

The following section analyses the impact of hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust on personalisation as a dimension of omnichannel customer experience in the technical consumer goods sector. The multiple regression approach is applied, assuming personalisation as the dependent variable, and the six different antecedents are considered as independent variables. The following hypotheses are examined with the help of regression analysis:

H3c: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the personalisation dimension of OCCE.

H3ci: IPPP has a significant impact on Personalisation.

H3cii: IINFO has a significant impact on Personalisation.

H3ciii: ICS has a significant impact on Personalisation.

H3civ: PT has a significant impact on Personalisation.

H3cv: PR has a significant impact on Personalisation.

H3cvi: HM has a significant impact on Personalisation.

Table 6.4: Multiple Regression Analysis: Personalisation vs Antecedents of OCCE

No.	Independent Variable	Dependent variable	Regression Coefficient	Standard Error	T-statistic	F-statistic	R^2
	(Constant)	Personalisation	.824	.229	3.599**	119.39**	50.7%
H3ci	IPPP		.214	.047	4.508**		
H3cii	IINFO		.208	.041	5.026**		
H3ciii	ICS		.190	.043	4.380**		
H3civ	PT		.103	.042	2.450**		
H3cv	PR		-.012	.031	-0.374		
H3cvi	HM		.164	.031	5.274**		

Source: Primary Data *** Significant at 5% Level of Significance*

6.4.1 Results

Based on the results of the multiple regression analysis, the hypothesis **"The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, and perceived trust) have a significant impact on the personalisation dimension of OCCE"** is supported. The slope coefficient is found to be highest in the case of integrated product, pricing, and promotion (0.214), followed by integrated information (0.208) and integrated customer service (0.190), which are found to have the maximum impact on the personalisation dimension of OCCE. The F-statistic representing the goodness of fit of the regression model is found to be 119.392, significant at 5% level of significance. The R-squared of the regression model is found to be 50.7%, which means the personalisation dimension of OCCE can be explained by 50.7% with the help of the regression model or the five antecedents of OCCE.

6.4.2 Discussion

Among the predictors, integrated product, pricing, and promotion ($\beta = 0.214$, $p < 0.001$) and integrated information ($\beta = 0.208$, $p < 0.001$) exert the strongest influence, underscoring the

central role of consistency and relevance in delivering personalised offerings. These results are consistent with Hübner et al. (2016) and Lemon & Verhoef (2016), who posit that a seamless and coherent presentation of offerings across platforms enhances personal relevance and tailored experiences.

Integrated customer service ($\beta = 0.190$, $p < 0.001$) also significantly contributes to personalisation, reflecting the importance of responsive and individualised service interactions in shaping consumer perceptions. Similarly, hedonic motivation ($\beta = 0.164$, $p < 0.001$) significantly predicts personalisation, aligning with findings by Verhoef et al. (2015) that emotional and experiential engagement is a key driver of personalised value in omnichannel contexts.

Interestingly, perceived trust ($\beta = 0.103$, $p = 0.015$) also emerged as a significant but comparatively moderate predictor, supporting prior studies (Yang et al., 2024) that associate trust with greater openness to personalised content and recommendations.

In contrast, Perceived Risk ($\beta = 0.012$, $p = 0.708$) has no statistically significant effect on personalisation. This suggests that while risk perceptions may influence consistency or satisfaction, they do not necessarily deter consumers from perceiving or engaging with personalised experiences—possibly due to the increasing normalisation of data-driven interactions in digital environments (Chatterjee et al., 2021).

6.5 Multiple Regression Analysis: Connectivity vs Antecedents of OCCE

This section discusses the impact of the antecedents (hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust) of omnichannel customer experience on connectivity as one of the dimensions of omnichannel customer experience in the technical consumer goods sector. The multiple regression approach is applied, assuming connectivity as the dependent variable, and the six different antecedents are considered as independent variables. The following hypotheses are examined with the help of regression analysis:

H3d: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and

promotion, perceived risk and perceived trust) have a significant impact on the connectivity dimension of OCCE.

H3di: IPPP has a significant impact on Connectivity.

H3dii: IINFO has a significant impact on Connectivity.

H3diii: ICS has a significant impact on Connectivity.

H3div: PT has a significant impact on Connectivity.

H3dv: PR has a significant impact on Connectivity.

H3dvi: HM has a significant impact on Connectivity

Table 6.5: Multiple Regression Analysis: Connectivity vs Antecedents of OCCE

No.	Independent Variable	Dependent variable	Regression Coefficient	Standard Error	T-statistic	F-statistic	R^2
	(Constant)	Connectivity	1.731	.196	8.823**	178.19**	60.6%
H3di	IPPP		.241	.041	5.931**		
H3dii	IINFO		.117	.035	3.298 **		
H3diii	ICS		.243	.037	6.556**		
H3div	PT		.224	.036	6.217**		
H3dv	PR		-.134	.027	-5.026**		
H3dvi	HM		.023	.027	0.870		

Source: Primary Data *** Significant at 5% Level of Significance*

6.5.1 Results

The proposed hypothesis that **"The antecedents of OCCE in the technical consumer goods sector (integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the connectivity dimension of OCCE"** is supported by the multiple regression analysis. The slope coefficient is found to be highest in the case of integrated customer service (6.556), followed by perceived trust (6.217) and integrated product, pricing, and promotion (5.931), which are found to have the maximum impact on the connectivity dimension of OCCE. The F-statistic, which represents the goodness of fit of the regression model, is found to be 178.196, significant at 5% level of significance. The R-squared of the regression model is found to be 60.6%, which

means the connectivity dimension of OCCE can be explained by 60.6% with the help of the regression model or the five antecedents of OCCE.

6.5.2 Discussion

Integrated customer service (β = 0.243, $p < 0.001$) and integrated product, pricing, and promotion (β = 0.241, $p < 0.001$) have the strongest impact on connectivity. These findings support prior literature (Herhausen et al., 2015; Lemon & Verhoef, 2016), which emphasises that seamless interactions and unified offerings across channels enhance a consumer's sense of connectedness within the omnichannel environment.

Perceived trust (β = 0.224, $p < 0.001$) also plays a pivotal role, affirming that trust is fundamental in fostering consumers' confidence in interacting across digital and physical touchpoints (Yang et al., 2024). Meanwhile, integrated information (β = 0.117, $p = 0.001$) significantly contributes to connectivity by ensuring that consumers receive coherent and synchronised information, aligning with Brynjolfsson et al. (2013).

On the contrary, perceived risk (β = -0.134, $p < 0.001$) exerts a negative influence, indicating that when consumers perceive greater uncertainty or data vulnerability, their sense of seamless connection across channels diminishes. This aligns with the findings of (Chatterjee et al., 2021), who argue that perceived risks disrupt continuity and inhibit deeper engagement in omnichannel platforms.

Interestingly, hedonic motivation (β = -0.023, $p = 0.385$) is not a significant predictor of connectivity. This suggests that while emotional or experiential enjoyment may enhance other aspects of OCCE (personalisation), it does not significantly influence how connected consumers feel across integrated platforms.

6.6 Multiple Regression Analysis: Flexibility vs Antecedents of OCCE

This section discusses the impact of the antecedents (hedonic motivation, integrated information, integrated customer service, integrated product, pricing & promotion, perceived risk and perceived trust) of omnichannel customer experience on flexibility as one of the dimensions of omnichannel customer experience in the technical consumer goods sector. The multiple regression approach is applied, assuming flexibility as the dependent variable, and the

six different antecedents are considered as independent variables. The following hypotheses are examined with the help of regression analysis:

H3e: The antecedents of OCCE in the technical consumer goods sector (hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk and perceived trust) have a significant impact on the flexibility dimension of OCCE.

H3ei: IPPP has a significant impact on Flexibility.

H3eii: IINFO has a significant impact on Flexibility.

H3eiii: ICS has a significant impact on Flexibility.

H3eiv: PT has a significant impact on Flexibility.

H3ev: PR has a significant impact on Flexibility.

H3evi: HM has a significant impact on Flexibility.

Table 6.6: Multiple Regression Analysis: Flexibility vs Antecedents of OCCE

No.	Independent Variable	Dependent variable	Regression Coefficient	Standard Error	T-statistic	F-statistic	R^2
	(Constant)	Flexibility	.810	.209	3.878**	175.058**	60%
H3ei	IPPP		.240	.043	5.547**		
H3eii	IINFO		.238	.038	6.313**		
H3eiii	ICS		.214	.040	5.413**		
H3eiv	PT		.201	.038	5.238**		
H3ev	PR		-.048	.028	-1.672		
H3evi	HM		.017	.028	.590		

Source: Primary Data *** Significant at 5% Level of Significance*

6.6.1 Results

The results of the multiple regression analysis confirm the hypothesis that **"The antecedents of OCCE in the technical consumer goods sector (integrated information, integrated customer service, integrated pricing, product and promotion, and perceived trust) have a significant impact on the flexibility dimension of OCCE".** The slope coefficient is found to be highest in the case of integrated information (6.313), followed by integrated product, pricing, and promotion (5.547), and integrated customer service (5.413), which are found to have the

maximum impact on the flexibility dimension of OCCE. The F-statistic, which represents the goodness of fit of the regression model, is found to be 175.058, significant at 5% level of significance. The R-squared of the regression model is found to be 60.1%, which means the flexibility dimension of OCCE can be explained by 60.1 % with the help of the regression model or the four antecedents of OCCE.

6.6.2 Discussion

Key findings highlight integrated information ($\beta = 0.238$, $p < 0.001$), integrated product, pricing, and promotion ($\beta = 0.240$, $p < 0.001$), and integrated customer service ($\beta = 0.214$, $p < 0.001$) as the most influential factors driving perceived flexibility. These results align with previous literature (Hübner et al., 2016; Lemon & Verhoef, 2016) that emphasise how seamless integration across service elements empowers customers with choice and adaptability in their channel interactions. Furthermore, perceived trust ($\beta = 0.201$, $p < 0.001$) significantly contributes to flexibility. Trust reduces consumer anxiety and increases their confidence in navigating multiple platforms, thereby enhancing their perceived ability to choose and switch between channels based on convenience (Yang et al., 2024). While perceived risk has a negative coefficient ($\beta = -0.048$), its effect is not statistically significant ($p = 0.095$). This suggests that although perceived risk may potentially deter flexibility by creating hesitation or uncertainty, its impact is not pronounced in this model—possibly due to increasing consumer familiarity with digital ecosystems. Interestingly, hedonic motivation ($\beta = 0.017$, $p = 0.555$) does not have a significant influence on flexibility. This implies that the enjoyment or pleasure derived from the omnichannel experience is not a primary driver of perceived flexibility, echoing insights from Verhoef et al. (2015) that functional factors often outweigh affective elements in shaping utilitarian dimensions such as flexibility.

6.7 Summary

The analysis of Objective 3 examined how the six antecedents—hedonic motivation, integrated information, integrated customer service, integrated product, pricing and promotion, perceived risk, and perceived trust—shape each of the five dimensions of omnichannel customer experience: integration, consistency, personalisation, connectivity and flexibility. Correlation analysis revealed that all antecedents are significantly related to each OCCE dimension, with no concerns regarding multicollinearity. Multiple regression results indicate that integrated

customer service, integrated information, integrated product, pricing and promotion and perceived trust consistently emerge as the strongest positive drivers across all five dimensions. Hedonic motivation significantly enhances integration and personalisation but is less important for more functional dimensions such as consistency, connectivity and flexibility. Perceived risk tends to weaken perceptions of integration, consistency and connectivity, while exerting limited or non-significant influence on personalisation and flexibility. Across the models, explained variance ranges from about 47% to over 60%, indicating robust explanatory power of the antecedent set for each OCCE dimension. Overall, the findings underscore that seamless information, aligned offers, coherent service delivery and trust are central levers for strengthening all facets of omnichannel experience in the technical consumer goods sector.

CHAPTER 7
OUTCOMES OF OMNICHANNEL CUSTOMER EXPERIENCE

7.1 Introduction

An empirical assessment of Objectives 4 and 5 is presented in this chapter by analysing the effect of omnichannel customer experience on key outcomes, including customer satisfaction, repurchase intention, and word-of-mouth intention, and further test the mediating effect of customer satisfaction between omnichannel customer experience and the behavioural outcomes and provides the results of the analysis.

Omnichannel customer experience is hypothesised to influence customer satisfaction, which further leads to customer responses in terms of repurchase intention and word-of-mouth intention. Further, the level of satisfaction of the customers is assumed to play a mediating role between the omnichannel customer experience and repurchase intention and omnichannel customer experience and word-of-mouth intention in the technical consumer goods sector. It is expected that omnichannel customer experience leads to repurchase intention and word-of-mouth intention via their satisfaction in the technical consumer goods sector. In the structural model, customer satisfaction is assumed to be a mediating construct, whereas the OCCE of the customers is assumed to be an independent construct and repurchase intention and word-of-mouth intention are assumed to be endogenous constructs. The mediating effect of customer satisfaction between OCCE and RPI and OCCE and WOM is examined with the help of the process suggested by Baron and Kenny (1986) along with the bootstrap method.

7.2 Outcomes of Omnichannel Customer Experience

The structural model (Figure 7.1) is examined with the help of Structural equation modelling using the SmartPLS 4 software. The following hypotheses are framed and tested using SEM analysis.

H4a: OCCE significantly influences CS.

H4b: CS significantly influences the RPI of the customers.

H4c: CS significantly influences the WOM of the customers.

Figure 7.1: Relationship between OCCE, CS, RPI and WOM

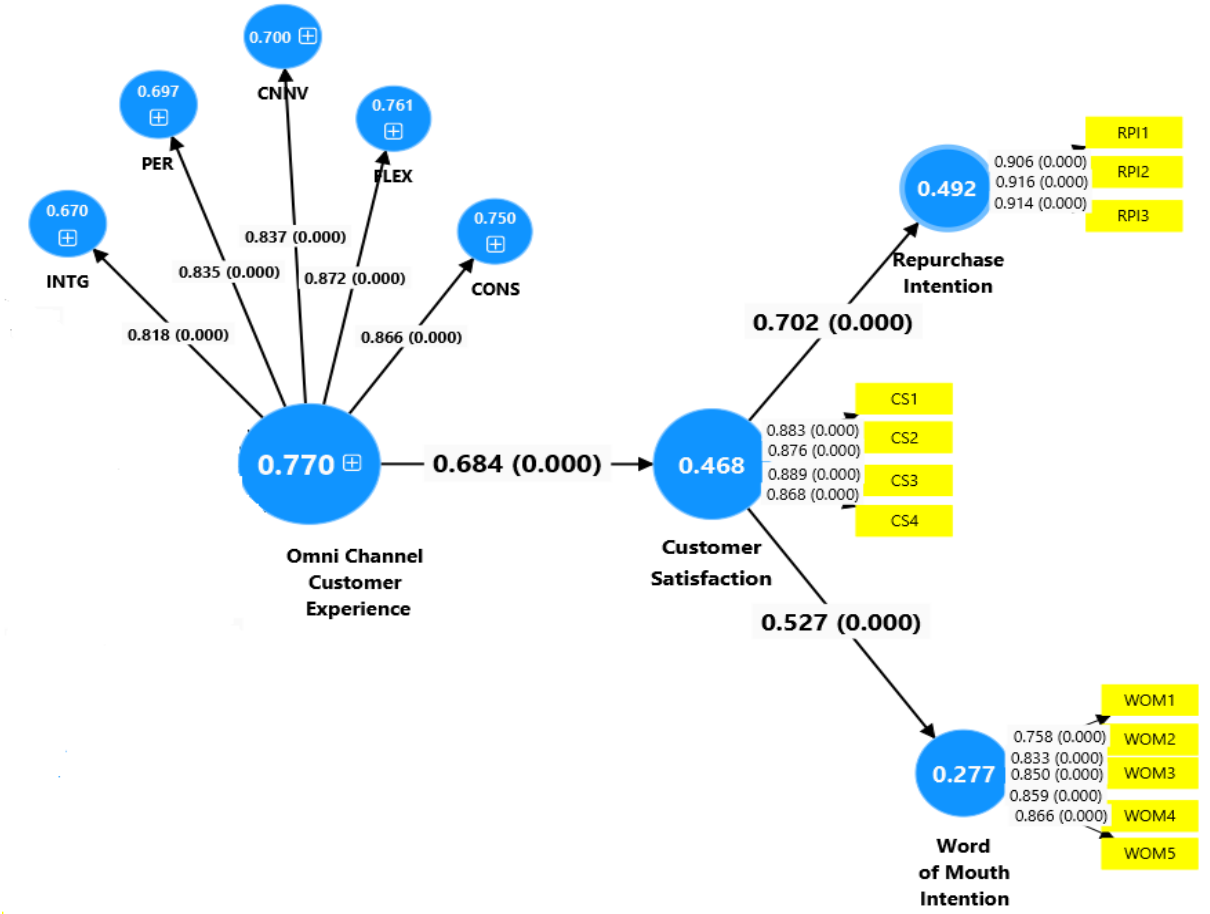


Table 7.1: Relationship between OCCE, CS, RPI and WOM

No.	Exogeneous Constructs	Endogenous Construct	Path Coeff.	T-statistic	R^2	Conclusion
H4a	Omnichannel Customer Experience	Customer Satisfaction	0.684	32.442**	46.8%	Supported
H4b	Customer Satisfaction	Repurchase Intention	0.702	38.137**	49.2%	Supported
H4c	Customer Satisfaction	Word of Mouth Intention	0.527	18.236**	27.7%	Supported

Source: Primary Data *** Significant at 5% Level of Significance*

7.2.1 Results

The findings from the SEM analysis confirmed the hypothesis that **"Omnichannel customer experience significantly influences customer satisfaction"** *(path coefficient =0.684, t-statistic = 32.442).* The path coefficient indicating the impact of OCCE on CS is found to be positive and statistically significant. Thus, it can be concluded that omnichannel customer experience positively influences customer satisfaction. Similarly, the hypothesis that **"Customer satisfaction significantly influences the repurchase intention of the customers"** *(path coefficient =0.702, t-statistic = 38.137)* was confirmed with the SEM analysis. The path coefficient indicating the impact of customer satisfaction on the repurchase intention is found to be positive and statistically significant. Thus, it can be concluded that high customer satisfaction motivates them to repurchase the products in omni-channel frameworks. Additionally, the findings of the SEM analysis provide support for the hypothesis **"Customer satisfaction significantly influences the word-of-mouth intention of the customers"** *(path coefficient =0.527, t-statistic = 18.236).* The path coefficient indicating the impact of customer satisfaction on word-of-mouth intention is found to be positive and statistically significant. Thus, it can be concluded that high customer satisfaction leads to positive word-of-mouth intentions of the customer in omnichannel frameworks.

7.2.2 Discussion

Recent studies strongly support the positive link between omnichannel customer experience and customer satisfaction. In a Thai fashion retail context, Khalid (2024) finds a significant correlation between seamless omnichannel shopping and higher customer satisfaction. Key omnichannel features – such as integrated promotions, consistent customer service across channels, and unified transactions – all enhance the overall experience, leading consumers to feel more satisfied. This aligns with Lazaris et al. (2021), who showed that increasing the level of channel integration (online–offline blending) positively influences customer satisfaction. In their experiments, moving from low to high integration created a smoother, more "flow-like" shopping journey, translating into greater satisfaction. Recent work by Gupta et al. (2023) even argues that "merely satisfying the customers is not enough; delighting them by offering unified experiences across channels is crucial", since omnichannel customer delight significantly boosts satisfaction and downstream loyalty outcomes.

In the omnichannel retail domain, satisfaction remains a strong predictor of repeat purchase intentions. Rahman et al. (2025) demonstrate that improvements at various stages of the omnichannel journey (e.g. faster delivery, consistent product information, responsive support) significantly increase customers' repurchase intentions. In their two-country study, higher omnichannel experience quality led to greater satisfaction, which directly translated into higher intention to repurchase from the retailer. This aligns closely with H4b (path coefficient = 0.702), indicating a robust effect. Cotarelo et al. (2021) found that higher omnichannel intensity and improved satisfaction directly bolstered loyalty intentions (i.e. repeat purchase and retention). Lazaris et al. (2021) similarly observed that customers experiencing a highly integrated channel environment were more likely to remain loyal to the retailer, partially due to greater satisfaction. Additionally, relationship length has also been found to moderate the satisfaction–repurchase link. Rahman et al. (2025) note that in early customer–firm relationships, the effect of an improved experience (and resulting satisfaction) on repurchase may be non-linear – new customers are still forming opinions – but as the relationship matures, satisfaction's impact on repurchase stabilises and remains strongly positive. Despite such nuances, greater customer satisfaction leads to higher repurchase intention in omnichannel settings and beyond.

Recent literature also upholds the positive link between satisfaction and word-of-mouth (WOM) intention. Satisfied customers are far more inclined to share positive experiences and recommend the retailer – a relationship confirmed across industries (Hennig-Thurau et al., 2004). Empirical studies observed that an increase in satisfaction led directly to increased referrals (positive WOM), whereas improving service quality or trust only boosted WOM indirectly by first raising satisfaction (Cronin et al., 2000). Even in highly technical product categories, satisfied consumers voluntarily become ambassadors. Indian electronics shoppers often rely on peer reviews and recommendations. However, literature has evidence that exceptional satisfaction (delight) may be needed to spur active WOM in some cases – average satisfaction might make customers happy, but not vocal (Oliver, 1980). This is why Gupta et al. (2023) stress "delighting" omnichannel customers: delight (extreme satisfaction) creates enthusiastic promoters, further amplifying WOM effects.

For the technical consumer goods market in India, which is becoming increasingly omnichannel by necessity (with consumers often researching online and buying offline or vice versa), investing in a seamless omnichannel customer experience is important to cultivate satisfaction. High satisfaction will directly yield loyalty in the form of repurchases and will multiply the

customer base through positive word-of-mouth. This sector-level insight is supported by both global and Indian research in the past five years, lending managers confidence that improving omnichannel integration and service quality across touchpoints is not just operationally beneficial but also key to winning customer loyalty and advocacy in the digital age.

7.3 Mediating effect of CS between OCCE and RPI and OCCE and WOM

The following hypotheses are tested with the help of Bootstrap method for mediation in SmartPLS 4.

H5a: CS mediates the relationship between OCCE and RPI in the technical consumer goods sector.

H5b: CS mediates the relationship between OCCE and WOM in the technical consumer goods sector.

Figure 7.2: Mediating effect of CS between OCCE and RPI

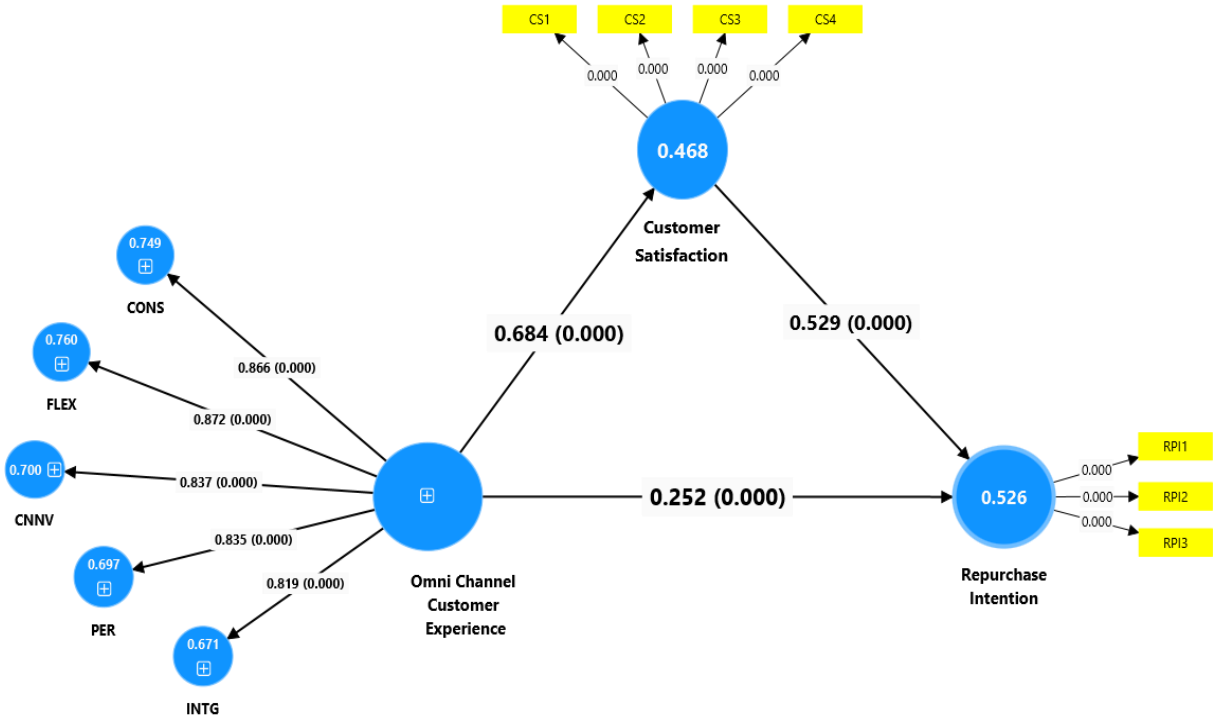


Table 7.2: Mediating effect of CS between OCCE and RPI

Type of effect	Relationship	Path Coeff	T stat	Remark
Total effect of OCCE on RPI	OCCE → RPI	0.616	23.347**	Significant total effect
Indirect effect of OCCE on RPI via CS	OCCE→ CS → RPI	0.362	12.884**	Significant indirect effect
Direct effect of OCCE on RPI	OCCE → RPI	0.252	6.232**	Significant direct effect
Conclusion	Significant partial effect of CS is found between OCCE and RPI			

Source: Primary Data *** Significant at 5% Level of Significance*

Figure 7.3: Mediating effect of CS between OCCE and WOM

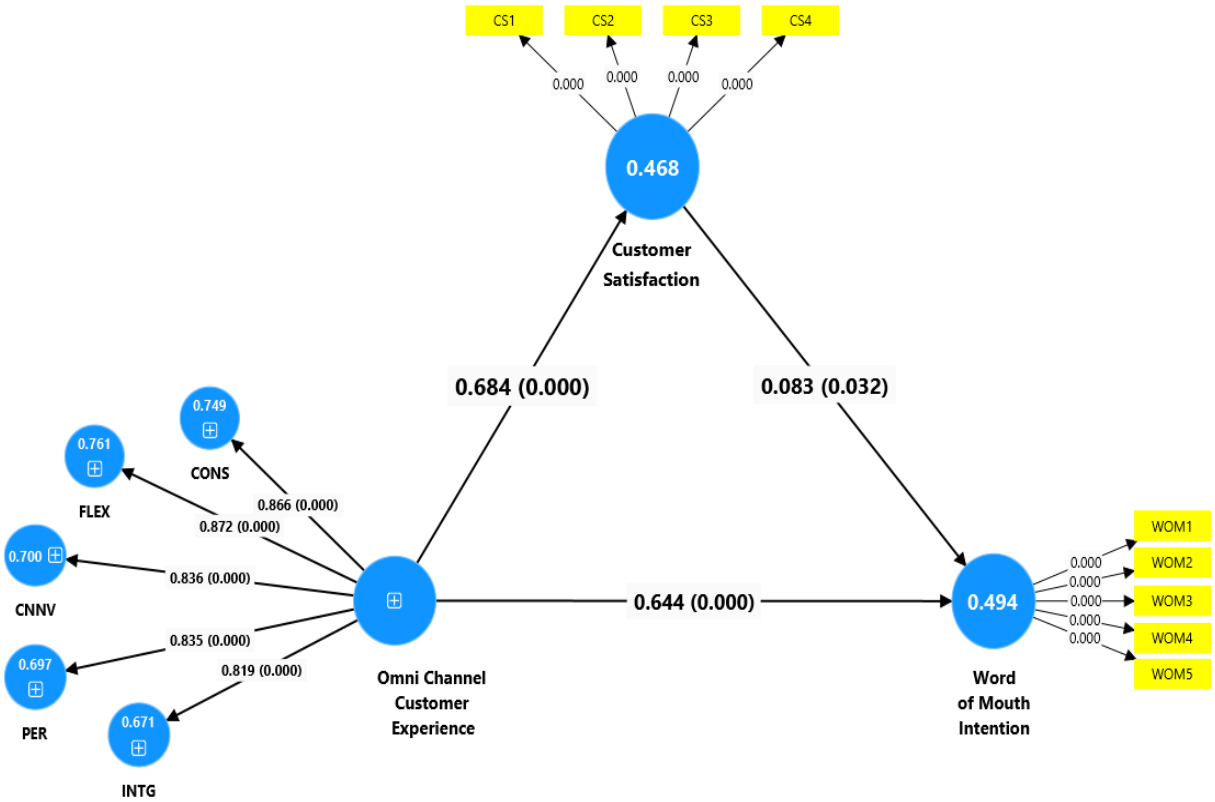


Table 7.3: Mediating effect of CS between OCCE and WOM

Type of effect	Relationship	Path Coeff	T stat	Remark
Total effect of OCCE on WOM	OCCE → WOM	0.701	34.496**	Significant total effect
Indirect effect of OCCE on WOM via CS	OCCE→ CS → WOM	0.057	2.124**	Significant indirect effect
Direct effect of OCCE on WOM	OCCE → WOM	0.644	20.187**	Significant direct effect
Conclusion	Significant partial effect of CS is found between OCCE and WOM			

Source: Primary Data *** Significant at 5% Level of Significance*

7.3.1 Results

The result of the mediation analysis supported the hypothesis that **"CS mediates the relationship between OCCE and RPI in the technical consumer goods sector".** The total effect of OCCE of the customers on customer repurchase intention is found to be positive (*path coefficient=0.616, t-statistic = 23.347***)* and also significant at 5% level of significance. Further, the indirect effect of OCCE on customer repurchase intention via customer satisfaction is also found positive (*path coefficient=0.361, t-statistic=12.884***) and also statistically significant. Finally, the direct effect of OCCE on customer repurchase intention in the presence of the mediator i.e. customer satisfaction is further found positive and statistically significant (path coefficient=0.252, t-statistic=6.232). The fact that the direct path remains significant even after accounting for customer satisfaction indicates partial mediation – OCCE influences repurchase intentions both directly and via its impact on satisfaction. In other words, a superior omni-channel experience directly encourages repeat purchase, and it boosts customer satisfaction which in turn increases repurchase intention. If customer satisfaction fully mediated the relationship, the direct effect would drop to near zero and become non-significant. Instead, customer satisfaction explains a substantial portion of the OCCE -- RPI effect (0.362 out of 0.614), but not all of it.

The hypothesis that **"CS mediates the relationship between OCCE and WOM in the technical consumer goods sector"** is supported by the results of the mediation analysis. The given statistics indicate a partial mediation effect of customer satisfaction (CS) in the relationship between omnichannel customer experience (OCCE) and word-of-mouth intention (WOMI). Specifically, the total effect of OCCE on WOMI is very strong ($\beta = 0.701$, $t = 34.496$, $p < 0.001$), and this overall influence can be decomposed into a direct effect ($\beta = 0.644$, $t = 20.187$, $p < 0.001$) and a mediated indirect effect through customer satisfaction ($\beta = 0.057$, $t = 2.124$, $p = 0.034$). Because the direct path remains significant and substantial even after accounting for CS, we conclude that CS only partially carries the impact of omnichannel experience on WOM intentions. In other words, a positive omni-channel experience not only boosts customer satisfaction (which in turn encourages WOM intent) but also has an *independent* direct influence on whether customers will recommend the retailer or brand. This pattern – significant direct and indirect paths – is the hallmark of partial mediation. Had customer satisfaction fully mediated the relationship, we would expect the direct OCCE → WOMI effect to drop to near zero and become non-significant once satisfaction is included in the model. Here, however, both pathways are active, indicating that satisfaction explains some (but not all) of the influence of omni-channel experience on WOM intentions. To put the magnitudes in context, the indirect effect (0.057) is relatively small compared to the total effect (0.701). This suggests that only around 8% of the impact of OCCE on WOMI is transmitted via increased satisfaction, while the remaining 92% is direct. Practically, this means that a great omnichannel experience does more than just make customers satisfied – it also directly motivates them to spread positive word-of-mouth, perhaps due to factors like excitement about seamless service or the novelty of an integrated shopping journey. Meanwhile, customer satisfaction still plays a statistically significant role as a mediator, reinforcing that happier customers are indeed more likely to recommend. This partial mediation result aligns with the view that satisfaction is one of several pathways through which omni-channel experiences translate into customer advocacy.

7.3.2 Discussion

In line with the above results, Gao & Fan (2021) examined omnichannel experience consistency (alignment of online and offline experiences) and found that consistent cross-channel experiences significantly improve customer satisfaction, which then raises repurchase

intentions. In their study, satisfaction carried a significant indirect effect of experience consistency on repurchase, yet a direct effect of the omnichannel experience on repurchase intention remained significant as well. They concluded that customer satisfaction partially mediates the impact of omnichannel experience on loyalty outcomes, rather than completely mediating it. This aligns with the findings of this study, i.e., even when shoppers are satisfied, the omnichannel experience itself still exerts a direct influence on their intent to repurchase through convenience, technology novelty, or brand impression that goes beyond satisfaction. By contrast, some research (Rose et al., 2012) suggests scenarios closer to full mediation, where the effect of omnichannel experience on repurchase intention is fully channelled through an evaluative outcome like satisfaction (i.e. the direct effect vanishes when the mediator is included). In such cases, a seamless and pleasant omnichannel journey boosts customer satisfaction so substantially that satisfaction alone accounts for all loyalty gains, leaving no extra direct influence of the experience. Zhang et al. (2024) emphasise that a key factor in developing customer loyalty is the customer's level of satisfaction with the entire shopping experience provided by omnichannel retailers. Their study showed that various omnichannel attributes (such as personalisation and channel connectivity) impact loyalty by enhancing the hedonic and utilitarian aspects of the customer's experience. Once those experiential satisfaction factors are in place, they fully drive repeat purchase intentions. In such models, after accounting for satisfaction (or closely related constructs like perceived value or overall experience quality), the direct path from omnichannel experience to loyalty becomes non-significant, implying full mediation. This outcome is more likely when the measured omnichannel experience is broad and overlaps with satisfaction (e.g. overall service quality or value assessments). If customers only remain loyal because they are satisfied – and the direct influence of experience is negligible – it can be inferred that satisfaction fully mediates the relationship.

Orús et al. (2019) found that when electronics consumers read positive online recommendations (reviews) and then engage in webrooming, it enhances their in-store shopping experience and overall satisfaction, thereby boosting their likelihood to purchase. In their Spanish study, the omnichannel webrooming experience – combining digital and physical touchpoints – was directly linked to higher satisfaction and indirectly to higher purchase intentions. Notably, they observed that webrooming customers felt more confident and were more satisfied with their purchase journey than pure showrooming customers. This implies that a well-integrated

omnichannel approach in the technical consumer goods sector elevates customer satisfaction, which in turn drives repurchases. Yet, the direct impact of a great omnichannel experience should not be understated: features like real-time inventory visibility, personalised cross-channel offers, or an immersive store demonstration can directly encourage repeat patronage by building customer trust and engagement, even apart from the satisfaction gained.

Overall, recent literature agrees that customer satisfaction is a crucial mediator between omnichannel experience and repurchase intentions in retail, including the technical consumer goods sector. A positive, seamless omnichannel experience tends to make customers more satisfied, which strongly increases their likelihood of repeat purchasing. This partial mediation suggests that factors such as trust, convenience, and habit formed via omnichannel engagement also play a role in repurchase decisions alongside satisfaction.

Additionally, omnichannel service quality or experience improvements lead to higher customer satisfaction and, consequently, greater WOM propensity. Gao et al. (2021) examined omnichannel experience consistency (alignment of online and offline experiences) and found that it improved both customer satisfaction and WOM outcomes. In their mediation tests, customer satisfaction significantly mediated the effect of experience consistency on WOM, but did not eliminate the direct effect, indicating a partial mediation. In that study, even after accounting for satisfaction, a consistent omnichannel experience continued to have its own positive impact on customers' willingness to spread WOM, leading them to conclude that satisfaction only partially transmits the influence of the omnichannel experience. Therefore, OCCE retains a significant direct influence on WOM, in addition to its mediated effect. Notably, recent research (Serra-Cantallops et al., 2018) in omnichannel marketing also highlights why a direct effect might persist. Rahman et al. (2025) found that a superior omnichannel customer experience directly increased customers' "indirect engagement" intentions, such as referral and influence intentions (i.e. willingness to give feedback and recommend the retailer to others). This suggests that an enjoyable, seamless omnichannel journey can directly inspire customers to engage in positive WOM, especially for consumers who appreciate innovative, convenient shopping approaches.

For technical consumer goods retailers, customer satisfaction is a key but not exclusive driver of WOM intention. A superior omnichannel experience in this sector may directly encourage WOM even if the customer's satisfaction is only moderately improved. This could be because

tech-savvy consumers value the omnichannel features themselves (real-time inventory visibility, online-to-store pickup, seamless warranty service) and might speak positively about those features to peers. Indeed, research highlights that omnichannel strategies in electronics retail (e.g. integrating online product information with in-store assistance) reduce friction and increase customer satisfaction and trust, which ultimately leads to stronger loyalty and more WOM referrals.

7.4 Summary

This chapter addresses Objectives 4 and 5 by examining how omnichannel customer experience (OCCE) shapes key outcomes—customer satisfaction (CS), repurchase intention (RPI), and word-of-mouth intention (WOM)—and by testing the mediating role of CS. The structural model estimated via SmartPLS 4 shows that OCCE has a strong, positive, and significant effect on CS, indicating that more seamless and integrated omnichannel journeys substantially enhance satisfaction. In turn, CS exerts a powerful positive influence on repurchase intention and a moderately strong effect on WOM intention, confirming satisfaction as a central driver of loyalty behaviours in the technical consumer goods sector. Mediation analyses using the Baron and Kenny approach and bootstrapping reveal significant partial mediation of CS between OCCE and RPI and OCCE and WOM. These results suggest that while improving satisfaction is crucial, OCCE also directly motivates repeat patronage and advocacy through features such as convenience, integration, and technological novelty. Overall, the chapter concludes that delivering a superior omnichannel experience is fundamental for building satisfaction, repurchase intentions, and positive WOM, with satisfaction acting as a key—but not exclusive—mechanism through which OCCE translates into customer loyalty and advocacy.

CHAPTER 8
DEVELOPMENT OF OMNICHANNEL CUSTOMER EXPERIENCE INDEX

8.1 Introduction

The study aims to develop an omnichannel customer experience index to measure customers' experiences within omnichannel frameworks in the technical consumer goods sector. This chapter presents a detailed analysis of Objective 6, which aims to develop the OCCE Index based on inputs received from practitioners in the technical consumer goods sector.

This objective attempted to develop an OCCE index by prioritising the five key dimensions of OCCE suggested by Shi et al. (2020) - Integration, Personalisation, Connectivity, Consistency, and Flexibility – in retail frameworks in the technical consumer goods sector with the help of the Analytical Hierarchy Process (AHP). AHP employs a multi-criteria decision-making technique suggested by Saaty (1987), which helps prioritise criteria based on expert pairwise comparisons. It decomposes complex decision problems into hierarchical structures by quantifying the intuitions of marketing professionals. The outcome of AHP was a ranking of the five OCCE dimensions with associated weights indicating their relative importance.

8.2 Methodology

8.2.1 Steps in the development of AHP

1) The AHP exercise begins with defining the objective, which in the case of this study is to prioritise the dimensions of OCCE for delivering a superior customer experience in the technical consumer goods sector.

2) Next, a dual-level hierarchy is developed to decompose the objective into dimensions (criteria) and sub-dimensions (sub-criteria), and relationships are drawn between the two. A total of 23 sub-dimensions were identified to define each of the 5 dimensions. Table 8.1 lists the dimensions of OCCE with their respective sub-dimensions.

3) After defining the hierarchy, a pairwise comparison questionnaire was designed to collect expert opinions on the relative importance of the sub-dimensions using the scale developed by Saaty (1977). The experts were asked to compare two sub-dimensions and indicate which sub-dimension is more important than the other using a rating scale where 1 = equally important, 3 = moderately more important, 5 = strongly more important, 7 = very strongly more important, and 9 = absolutely important. The intermediate values (2, 4, 6, 8) could be chosen for comparisons that fell between the main scale points. Through the approach of pairwise comparisons, the AHP questionnaire captures the nuanced preferences of experts across all dimensions in a consistent manner.

4) The pairwise comparison data were collected from 29 senior practitioners in India's technical consumer goods sector, having more than 5 years of experience. These respondents were selected based on their expertise and experience in omnichannel retailing and customer experience management. The search for industry experts meeting the study-specific criteria was undertaken through personal networks and social media websites such as LinkedIn and Rocket Reach. A total of 50 industry professionals were identified, and these experts were requested to participate in the survey. However, only 29 consented to do so. The 29 experts held positions such as 'General Manager', 'Department Manager', 'Digital Transformation Manager', 'Store Manager', 'Product Manager', 'Head of Operations - Digital and Omni Business', 'Chief Manager-Customer Service Operations', 'Marketing Manager', 'Consumer Insights Manager', 'Retail Manager', 'Customer Relationship Manager', 'Service Manager', 'Operations Manager', 'Service Delivery Manager', 'Distribution Manager', 'Product Marketing Manager', 'Sales Manager' and 'Senior Brand Marketing Manager' across various brands in the technical consumer goods sector in India. A structured AHP questionnaire was administered to each executive. The survey was conducted through a combination of online forms and follow-up interviews to clarify any questions.

5) Subsequently, the responses of the 29 experts were aggregated using the geometric mean method *(Annexure III, Table 1)*. Specifically for each pair of sub-dimensions, the 29 comparison values were multiplied together, and then the 29^{th} root (the geometric mean) was taken, producing a single value for the pair.

8.2.2 Calculation of Priority Weights, Consistency Index (CI), Consistency Ratio (CR)

The AHP matrix used in the survey consists of two triangular matrices, namely the upper and lower triangular matrix, where the upper triangular matrix consists of input responses from the selected experts after pairwise comparison of the cells. The main diagonal of the AHP matrix is filled with 1, indicating that the same items of the included sub-dimensions of OCCE are equally important. The values in the lower triangular AHP matrix indicate the reciprocals of the respective average input score in the upper triangular matrix.

Once the pairwise comparison matrix is completed, the priority weights are calculated. This is done by totalling each column of the matrix, followed by dividing each entry in the matrix by the total of its respective column. This process creates a new matrix called the normalised matrix, where the values in each column total to 1.

In the normalised matrix *(Annexure III, Table 2),* the values in each row are averaged. These row averages form the priority vector, which is a set of values that represent the relative importance of each sub-dimension being compared. The priority vector is also referred to as the normalised principal eigenvector, and the sum of its values will always equal 1. These values provide a clear picture of how much weight or priority each sub-dimension holds relative to the others.

Ensuring consistency in responses is crucial because inconsistent judgments can lead to unreliable outcomes and poor decision-making (Ho, 2008). The principal eigenvalue (λ_{max}) assesses how consistent the comparisons are and is computed by taking the sum of the products between each priority vector and the corresponding total from the original pairwise matrix. The principal eigenvalue should be ideally close to n (number of comparisons). Human judgments are not always perfectly consistent, and hence it is important to measure how far they deviate using the Consistency Index (CI). The CI is calculated as:

$$CI = (\lambda_{max} - n) / (n - 1)$$

The Consistency Ratio (CR) tells us how consistent the judgments are by comparing the CI with a standard value called the Random Index (RI) (Saaty, 1987), which reflects the

consistency level expected from randomly filled matrices of the same size. The CR is calculated as:

$$CR = CI / RI$$

In this study, the principal eigenvalue (λ_{max}) was computed as 26.436 for a 23×23 pairwise comparison matrix, which yielded a Consistency Index (CI) of 0.156 and a Consistency Ratio (CR) of 0.086, based on a Random Index (RI) of 1.81. Since the CR is below the threshold of 0.10, the pairwise comparisons are considered to be acceptably consistent, validating the reliability of the derived priority weights. If the CR exceeds this threshold, it suggests that the comparisons may be too inconsistent, requiring review of the opinions given by the decision-makers.

8.2.3 Aggregating Local and Global Weights

The final step involved combining the priority vectors (local weights) for each sub-dimension to meaningfully understand its overall (global) importance (Table 8.1). Local weights refer to the relative importance of each sub-dimension within its own category, obtained from the pairwise comparisons using the eigenvector method (Hefnawy & Mohammed, 2014). Global weights explain the importance of each sub-dimension while comparing all the sub-dimensions in relation to the parent dimension weight (Hefnawy & Mohammed, 2014). This is done by multiplying each sub-dimension's local weight by the weight of its main dimension. The global weights are then used to rank the sub-dimensions across the entire framework. The sub-dimension with the highest global weight is considered the most influential in shaping the OCCE.

Table 8.1: Global and Local weights of the dimensions/sub-dimensions

Dimensions	Sub-dimensions	Local Weights (LW)	Main Dimension - Local Weights	Global Weights (GW)	Ranks of sub-dimensions based on global weights
Integration	Integrated interactions	0.86%	4.83%	0.04%	22nd
	Integrated product descriptions	1.27%		0.06%	21st
	Simultaneous product launches	0.79%		0.04%	23rd

	Product variant availability	1.92%		0.09%	19th
Personalisation	Personalised recommendations	1.00%	9.54%	0.10%	18th
	Personalised discounts/privileges	3.82%		0.36%	16th
	Customised online browsing pages	0.87%		0.08%	20th
	Client-specific rewards	3.85%		0.37%	15th
Consistency	Consistent trademarks/brand names/slogans	0.83%	25.44%	0.21%	17th
	Consistent information	5.61%		1.43%	9th
	Consistent product quality	9.09%		2.31%	6th
	Consistent service	9.91%		2.52%	3rd
Flexibility	Online/Offline order	5.09%	23.81%	1.21%	11th
	Channel choice for service	2.59%		0.62%	13th
	Flexible payment/pick-up options	3.92%		0.93%	12th
	After-sales service across channels	10.22%		2.43%	4th
	Tasks through preferred channels	1.98%		0.47%	14th
Connectivity	Inventory status across channels	3.64%	36.38%	1.32%	10th
	Product information across channels	5.60%		2.04%	7th
	Offline inventory via online channels	3.83%		1.39%	8th
	Synchronised content across channels	6.42%		2.34%	5th
	Connected member accounts	8.27%		3.01%	2nd
	Interconnected interactions	8.62%		3.14%	1st

Source: Primary Data

Figure 8.1: Main Dimension Weights

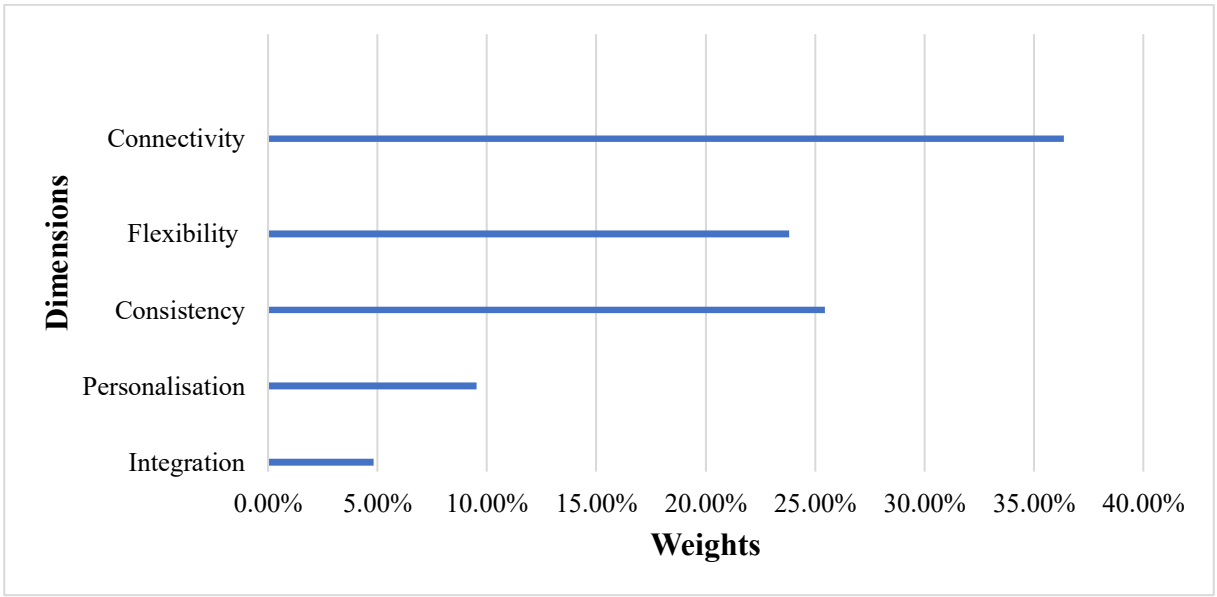
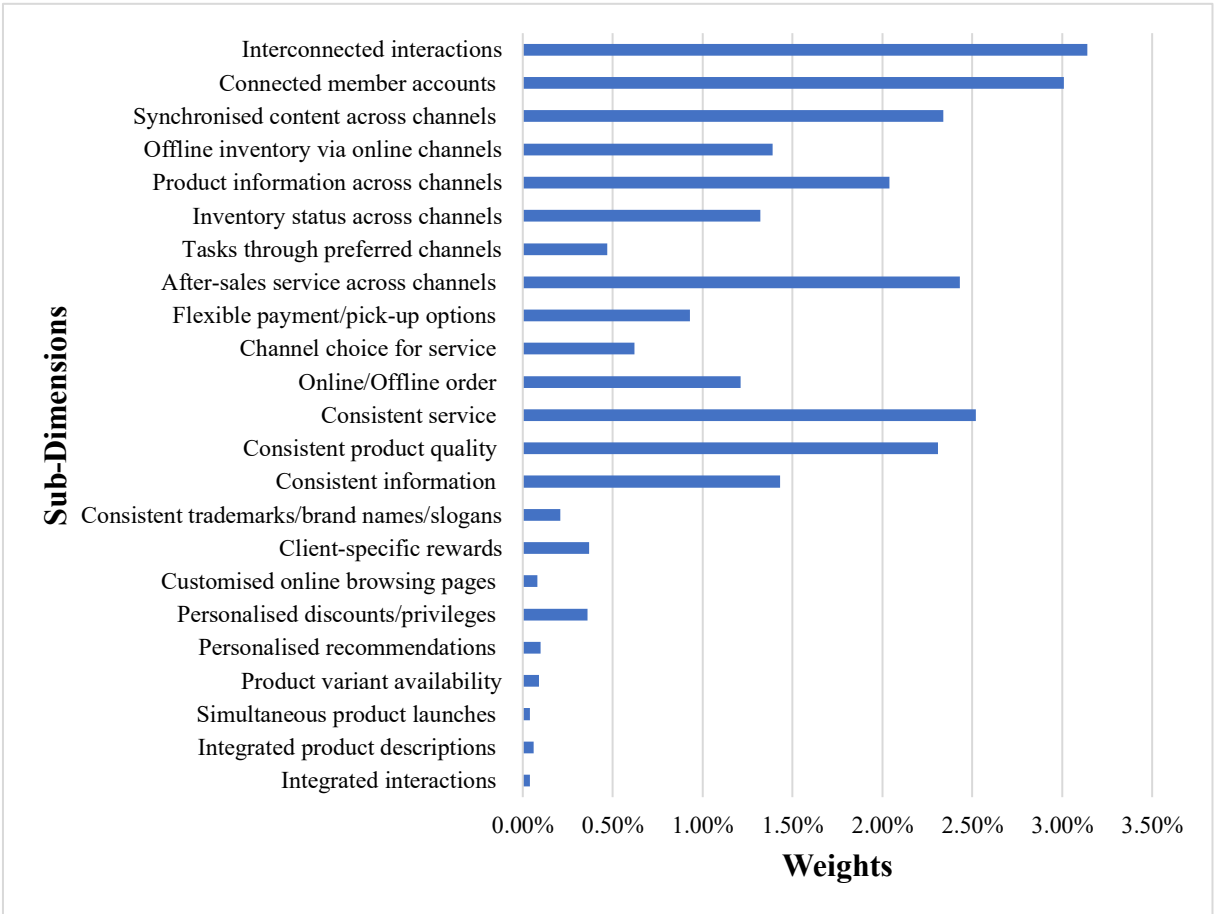


Figure 8.2: Sub-Dimension Weights



8.2.4 Results and Discussion

The result (Table 8.1) found that the most influential dimension of OCCE in the technical consumer goods sector is connectivity, with a local weight of 36.38%. Connectivity creates positive customer experiences in omnichannel environments when brands/retailers are well-connected across multiple channels. Within this dimension, interconnected interactions (LW - 8.62%; GW - 3.14%) emerged as the most critical sub-dimension, indicating that customers expect their interactions with the staff across channels to be integrated. This is important, especially in the technical consumer goods sector, as customers may register after-sales service requests through the website, and service personnel from the nearby store may be expected to attend to the request and be fully aware of the nature of the service request. Connected member accounts (LW - 8.27%; GW - 3.01%) emerged as the next most critical sub-dimension, indicating that customers expect their interactions to be integrated irrespective of the channel of interaction. These interactions can be connected using a customer's email ID or mobile number. Customers also expect their past interactions, including searches/inquiries and purchases, to be recorded and used in future dealings with them. Other notable elements within the connectivity dimension included synchronised content across channels (6.42%; 2.34%), Product information across channels (5.60%; 2.04%), Offline inventory via online channels (3.83%; 1.39%), and Inventory status across channels (3.64%; 1.32%). In the case of technical consumer goods, considered high-involvement goods, many customers aim to conduct a thorough search before finalising a specific brand and variant, leading to channel-hopping. If there is high connectivity across channels, it eases the customers' decision-making process and enhances their experiences.

The second most important dimension was consistency, with a local weight of 25.44%, indicating that uniformity in product quality, product descriptions and specifications, prices, logos, service, and applicable warranties across channels is crucial. Inconsistency in information across channels may lead to confusion in customers' minds, and they may sometimes opt for an alternative brand or postpone their purchase decisions. Customers expect to have a unified view of the brand, and consistency plays a crucial role in maintaining a singular perception of the brand, regardless of the channel of search and purchase. Within the consistency dimension, consistent service (9.91%; 2.52%) emerged as the most important sub-dimension wherein customers expect to receive consistent service across channels, which creates a sense of trust in the brand and leads to long-term loyalty. This was followed by

consistent product quality (9.09%; 2.31%), affirming that customers expect the quality of products to be consistent, regardless of the purchase channel. The remaining sub-dimensions were consistent information (5.61%; 1.43%) and consistent trademarks/brand names/slogans (0.83%; 0.21%).

Flexibility ranked third, with a local weight of 23.81%, suggesting that customers appreciate having choices in how they interact with brands. Within the flexibility dimension, after-sales service across channels emerged as a dominant sub-dimension (10.22%; 2.43%), reflecting that customers want the option of creating service requests on their preferred channel, either online or offline. Online/offline orders (5.09%; 1.21%), emerged second, indicating that customers desire the possibility of placing orders online and having them immediately picked up from the store/home delivered. The other sub-dimensions in the order of importance were flexible payment/pickup options (3.92%; 0.93%), channel choice for service (2.59%; 0.62%), and tasks through preferred channels (1.98%; 0.47%), collectively reflecting a desire for operational agility and personal control in the consumption journey. Flexibility is a crucial dimension of OCCE, and brands/retailers carrying out operations across channels should strive to make flexible options available to their customers to become “omni” in the true sense of the term.

The personalisation dimension received a local weight of 9.54%, indicating relatively lower emphasis in the context of technical consumer goods, where customers may prioritise functionality and reliability over customised experiences. For instance, customers shopping for apparel, footwear, and expensive jewellery may value personalised recommendations and rewards based on their shopping history, browsed pages, etc. Whereas, in the technical consumer goods sector, customers may attach more importance to the dimensions of connectivity, consistency, and flexibility. Nevertheless, client-specific rewards (3.85%; 0.37%) and personalised discounts/privileges (3.82%; 0.36%) were preferred over elements such as personalised recommendations (1.00%; 0.10%) and customised online browsing pages (0.87%; 0.08%).

Unexpectedly, integration, despite being fundamental to the omnichannel framework, emerged as the least important dimension with a local weight of 4.83%. Omnichannel frameworks are built on the basic premise of integration, and therefore, this dimension may not necessarily be viewed as a differentiator of customer experience. Among its sub-dimensions, product variant availability (1.92%; 0.09%) and integrated product descriptions (1.27%; 0.06%) were rated

higher than integrated interactions (0.86%; 0.04%) and simultaneous product launches (0.79%; 0.04%).

Overall, the top three sub-dimensions with the highest global weights were interconnected interactions (3.14%), connected member accounts (3.01%), and consistent service (2.52%). These results suggested that in the TCG sector, customers prioritise consistent quality, support, and connected service environments. These insights provide actionable strategies for retailers looking to enhance their omnichannel frameworks.

Based on the above discussion, the following index can be used to examine the OCCE, developed with the help of the AHP method:

OCCE = Connectivity * 36.38% + Consistency * 25.44% + Flexibility * 23.81% + Personalisation * 9.54% + Integration * 4.83%

8.3 Summary

The methodology and analysis used to develop the OCCE index through the AHP approach are presented in this chapter. The findings indicate that the most influential dimension of OCCE in the TCG sector was connectivity, with a local weight of 36.38%. The second most important dimension was consistency, with a local weight of 25.44%. Flexibility ranked third, with a local weight of 23.81%. The personalisation dimension received a local weight of 9.54%, and integration emerged as the least important dimension with a local weight of 4.83%. Overall, the top three sub-dimensions with the highest global weights were interconnected interactions (3.14%), connected member accounts (3.01%), and consistent service (2.31%).

CHAPTER 9
FINDINGS, CONCLUSIONS AND SUGGESTIONS

This chapter summarises the entire study, along with the findings of the study, and offers concluding remarks for the analysis. It further outlines the contributions of the study, along with managerial implications and suggestions for organisations in the technical consumer goods sector. It also highlights the limitations of the study and suggests the scope for future research.

9.1 Findings

As observed in the findings below, this research advances the literature on omnichannel customer experience in India's technical consumer goods sector:

- The hypothesis (H1) is supported. Integrated Product, Pricing and Promotion has the highest impact on omnichannel customer experience, followed by Integrated Customer Service and Integrated Information. It was found that Perceived Trust also has a comparably strong positive effect on omnichannel customer experience. Perceived Risk has a negative but significant effect. Hedonic Motivation has the least but significant impact on omnichannel customer experience in the technical consumer goods sector. Together, all the antecedents explain 77% of the variance in omnichannel customer experience, demonstrating high explanatory power in the technical consumer goods sector and validating the significance of structural elements of channel integration, as well as technology acceptance and experience-related antecedents.
- The hypothesis (H2) is partially supported: The moderating analysis revealed that demographic variables—gender, age, income, and education—significantly influence only select relationships between the antecedents and omnichannel customer experience. The specific findings are detailed below:

  The results of the group moderation effect reveal that gender moderates the relationship between IPPP and OCCE, ICS and OCCE, and HM and OCCE. In the case of the relationship between IPPP and OCCE and ICS and OCCE, the impact was found to be

significantly higher in the case of male consumers as compared to female consumers. However, in the case of the relationship between HM and OCCE, the path coefficient was found to be higher in the case of female consumers compared to male consumers. For the remaining relationships, no significant moderation was found, indicating the absence of the moderating effect of gender.

For the age groups **18 to 30 years and 31-45 years**, all the relationships between the selected antecedents and OCCE were statistically similar, and there were no significant differences. However, while comparing the age groups **18 to 30 years and above 45 years,** significant differences were revealed for the relationship between IINFO and OCCE, PT and OCCE, and HM and OCCE. In the case of the relationship between IINFO and OCCE and PT and OCCE, the results reported a significantly higher impact for consumers in the age group of above 45 years of age, as compared to young consumers in the age group of 18-30 years of age. However, in the case of the relationship between HM and OCCE, the impact was found to be significantly higher in the case of consumers in the age group of 18-30 years of age, as compared to consumers above 45 years of age. For the remaining relationships, no significant moderation was found. While comparing the age group **31-45 years and above 45 years,** significant differences were revealed for the relationship between IINFO and OCCE, ICS and OCCE, and PT and OCCE. In the case of the relationship between IINFO and OCCE, the impact was found to be significantly higher in the case of consumers in the age group of 31-45 years as compared to consumers above 45 years of age. However, in the case of the relationship between ICS and OCCE and PT and OCCE, the results reported a significantly higher impact for consumers in the age group of above 45 years of age as compared to young consumers in the age group of 31-45 years of age. For the remaining relationships, no significant moderation was found.

For the income groups **less than Rs 5 lakhs and Rs 5 lakhs – Rs 10 lakhs,** significant differences were revealed for the relationship between IPPP and OCCE, ICS and OCCE, and PT and OCCE. In the case of the relationship between IPPP and OCCE and ICS and OCCE, the impact was found to be significantly higher in the case of consumers in the income group of Rs 5 lakhs – Rs 10 lakhs as compared to consumers with an income of less than Rs 5 lakhs. However, in the case of the relationship between PT and OCCE, the impact was found to be significantly higher in the case of consumers in the income

group of less than Rs 5 lakhs as compared to consumers in the income group of Rs 5 lakhs – Rs 10 lakhs. For the remaining relationships, no significant moderation was found. For the income groups **less than Rs 5 lakhs and above Rs 10 lakhs,** significant differences were revealed for the relationship between IPPP and OCCE, ICS and OCCE, PT and OCCE, and PR and OCCE. In the case of the relationship between IPPP and OCCE and ICS and OCCE, the impact was found to be significantly higher in the case of consumers in the income group of Above Rs 10 lakhs as compared to those in the income group of less than Rs 5 lakhs. However, in the case of the relationship between PT and OCCE, the impact was found to be significantly higher in the case of consumers in the income group of less than Rs 5 lakhs as compared to consumers in the income group of Above Rs 10 lakhs. For the remaining relationships, no significant moderation was found. In case of the impact of PR on OCCE, the highest, however, negative impact was found in the case of consumers with an income of less than Rs 5 lakhs as compared to consumers with higher incomes. For the income groups, **Rs 5 – Rs 10 lakhs and above Rs 10 lakhs,** all the relationships between the selected antecedents and OCCE were statistically similar, and there were no significant differences.

While examining the interaction moderation effect of education, all the path coefficients indicating the impact of the selected antecedents and OCCE were found to be statistically insignificant, thus concluding that the education level of the consumers does not moderate the relationship between the antecedents and OCCE.

These findings confirm that demographic characteristics do affect the way consumers experience omnichannel environments, but their influence is context-dependent rather than universal indicating that OCCE drivers vary across customer segments in the technical goods sector.

- The hypothesis (H3) is partially supported. The multiple regression analysis revealed that the influence of antecedents on the five dimensions of Omnichannel Customer Experience —Integration, Consistency, Personalisation, Connectivity, and Flexibility— varied in strength and significance. In the case of Integration, all the antecedents had a significant impact on the integration dimension of OCCE, and the slope coefficient was found to be the highest in the case of ICS, followed by IINFO and PR, which were found to have the maximum impact on the integration dimension of OCCE. In the case of Consistency, all the antecedents, except HM, had a significant impact on the consistency

dimension of OCCE, and the slope coefficient was found to be the highest in the case of IPPP and ICS, which were found to have the maximum impact on the consistency dimension of OCCE. In the case of Personalisation, all the antecedents, except PR, had a significant impact on the personalisation dimension of OCCE, and the slope coefficient was found to be the highest in the case of IPPP and IINFO, which were found to have the maximum impact on the personalisation dimension of OCCE. In the case of Connectivity, all the antecedents, except HM, had a significant impact on the connectivity dimension of OCCE, and the slope coefficient was found to be the highest in the case of ICS, IPPP, and PT, which were found to have the maximum impact on the connectivity dimension of OCCE. In the case of Flexibility, all the antecedents, except PR and HM, had a significant impact on the flexibility dimension of OCCE, and the slope coefficient was found to be the highest in the case of IPPP, IINFO, and ICS, which are found to have the maximum impact on the flexibility dimension of OCCE. The F-statistic, which represents the goodness of fit of the regression model, was found to be significant at a 5 % level of significance in all five analyses.

- The hypothesis (H4) is supported. The findings confirm that the Omnichannel Customer Experience has a positive influence on Customer Satisfaction, and Customer Satisfaction exerts a significant positive effect on both Repurchase Intention and Word-of-Mouth Intention. Therefore, satisfaction acts as the primary mechanism translating positive omnichannel experiences into favourable behavioural outcomes, reinforcing its central role in building consumer loyalty.
- The hypothesis (H5) is supported. The mediation analysis confirmed that Customer Satisfaction partially mediates the relationship between Omnichannel Customer Experience (OCCE) and the behavioural outcomes—Repurchase Intention and Word-of-Mouth Intention. The results reveal that OCCE has a significant direct effect on both Repurchase and WOM intentions, while also exerting a strong indirect effect through Customer Satisfaction. The indirect effect of OCCE on Repurchase Intention through Satisfaction is significant in both cases, but stronger for repurchase intention than for word-of-mouth intention. This suggests that satisfaction is a key conduit through which omnichannel experiences translate into repeat purchasing, whereas its amplifying role in word-of-mouth is weaker. Customers with positive omnichannel experiences may

still recommend the retailer, even if they are not highly satisfied, but are more likely to make repeat purchases when those experiences also generate satisfaction.

- The study developed an Omnichannel Customer Experience (OCCE) Index for the Technical Consumer Goods (TCG) sector using the Analytical Hierarchy Process (AHP). This index quantifies the relative importance of the five key dimensions of OCCE—Connectivity, Consistency, Flexibility, Personalisation, and Integration—based on expert judgment and pairwise comparisons. The AHP analysis revealed that Connectivity (36.38%) emerged as the most influential dimension, followed by Consistency (25.44%), Flexibility (23.81%), Personalisation (9.54%), and Integration (4.83%). Based on the weights derived through the AHP analysis, the following index is proposed to measure the omnichannel experience of customers in the technical goods sector.

OCCE = Connectivity * 36.38% + Consistency * 25.44% + Flexibility * 23.81% + Personalisation * 9.54% + Integration * 4.83%

9.2 Conclusions

The present study aimed to develop and empirically validate a comprehensive model of omnichannel customer experience within India's technical consumer goods sector. This sector is characterised by high consumer involvement in the form of elaborate decision-making and information seeking, due to the infrequent nature of purchases and the high cost of these goods. Primarily based on theories of customer experience, channel integration and technology adoption, the research has examined how structural and experiential antecedents shape the omnichannel experiences of consumers with subsequent outcomes in the form of satisfaction, repurchase intention, and word-of-mouth intention.

The study's findings identified six critical antecedents – Integrated Product, Pricing and Promotion, Integrated Information, Integrated Customer Service, Perceived Trust, Perceived Risk and Hedonic Motivation - that significantly influence the Omnichannel Customer Experience. Among these, the structural elements of integration emerged as the strongest predictors underscoring the need for consistency in products, prices, information, and service across channels. Secondly, the moderating analysis confirmed that demographic variables, such as gender, age, and income, shape customer perception and response in omnichannel

frameworks, highlighting the need for segment-specific rather than homogeneous strategies in a highly heterogeneous Indian economy.

The study also validated that each of the antecedents differently influenced the five dimensions of omnichannel customer experience – Integration, Personalisation, Connectivity, Consistency and Flexibility. Further, the study also verifies that omnichannel customer experience exerts a strong positive effect on customer satisfaction which in turn significantly influences repurchase intention and word-of-mouth intention. Customer satisfaction was also found to partially mediate the relationship between omnichannel customer experience and the behavioural outcomes (repurchase intention and word-of-mouth intention), indicating that positive experiences translate into long-term satisfaction and loyalty.

Finally, the study developed the Omnichannel Customer Experience Index using the Analytical Hierarchy Process to quantify and prioritise the relative importance of each dimension of OCCE based on the inputs of experienced practitioners in India's technical consumer goods sector. The analysis reveals that Connectivity and Consistency are the most influential dimensions of OCCE followed by Flexibility, Personalisation and Integration. This index will enable brands and retailers the quantify the real omnichannel experiences of their customers and accordingly align their future omnichannel initiatives.

In conclusion, the study enriches both academic and managerial understanding of omnichannel experience in the high-involvement retailing sector. As India continues its digital transformation, the insights derived from this study can help design data-driven and customer-centric omnichannel strategies, aiding retailers in building enduring relationships in an increasingly competitive marketplace.

9.3 Contributions of the Study

This study makes the following significant contributions to the literature on omnichannel customer experience, particularly in the context of the Indian technical consumer goods (TCG) sector:

- The study consolidates the six factors of channel integration (Oh et al., 2012) into three consolidated factors offering a more contextually relevant framework for high-involvement goods.

- It extends the omnichannel customer experience research by incorporating constructs like hedonic motivation, perceived risk, and perceived trust derived from Technology Acceptance Models into the channel integration framework, offering a more comprehensive understanding of omnichannel adoption and experience, thereby capturing structural and experiential drivers.
- The study empirically validates and confirms the moderating role of key demographics in the omnichannel framework, thereby providing a nuanced and sector-specific segmentation perspective.
- The study, in line with previous literature in the marketing domain, confirms that satisfaction is a pivotal mechanism that translates positive omnichannel experiences into loyalty outcomes such as repurchase intention and word-of-mouth intention.
- The study introduces a novel methodological approach of employing the Analytical Hierarchy Process (AHP) to evaluate the relative importance of the dimensions of omnichannel customer experience (OCCE) in the technical consumer goods sector based on the scale proposed by Shi et al. (2020). While prior studies have primarily treated the OCCE scale as either an independent or dependent construct in quantitative models, this research advances the literature by using a Multi-Criteria Decision-Making (MCDM) technique to generate a practitioner-based prioritisation of the dimensions.
- Existing omnichannel research has predominantly centred on fashion and grocery retail in emerging and developed economies. By focusing on India's technical consumer goods sector, a high-involvement category within the world's largest and youngest consumer markets, this study provides crucial, context-specific insights that broaden the existing omnichannel literature.

9.4 Managerial Implications

The findings of this study carry significant implications for managers in India's technical consumer goods sector. The findings underscore the need for retailers to design integrated and customer-centric omnichannel frameworks that ensure consistency across online and offline touchpoints. The significant influence of integrated product, pricing and promotion, information, and customer service on the overall omnichannel customer experience (OCCE) suggests that fragmented operations can erode experiential quality and reduce customer retention. Managers should therefore invest in systems and processes that unify product data,

service standards, and promotional activities across channels to create seamless shopping journeys. The study highlights the importance of perceived trust and mitigation of risk in shaping customer experience. Given that purchases of technical consumer goods are typically high-involvement decisions, managers must ensure transparent policies, reliable fulfilment, and credible post-purchase support. Strengthening these elements can enhance both the cognitive and affective components of experience and encourage repurchase behaviour. The multi-group analysis reveals that the drivers of OCCE vary across demographic segments such as gender, age, and income. Retailers should thus develop segment-specific engagement models. Younger consumers tend to value experiential and hedonic aspects of shopping, whereas older or higher-income consumers prioritise reliability, assurance, and risk reduction. Recognising these variations allows managers to allocate resources more effectively and design differentiated value propositions across customer segments. The results indicate that customer satisfaction mediates the relationship between omnichannel customer experience and behavioural intentions such as repurchase and word-of-mouth intentions. This reinforces the need to continuously monitor and enhance satisfaction at each channel interface. Retailers can benefit from adopting structured diagnostic tools such as the proposed OCCE Index, which enables them to measure experiential quality across dimensions and identify areas requiring improvement. Regular application of such metrics can support data-driven decision-making and provide early warning signals of experience degradation. As consumers increasingly move between digital and physical channels, managerial emphasis should shift from channel optimisation to journey orchestration, ensuring that each interaction contributes cumulatively to a coherent and trustworthy brand experience.

9.5 Suggestions of the Study

The findings of the study suggest that retailers in the Indian technical consumer goods sector should explicitly position omnichannel customer experience as a central strategic priority. OCCE should be treated as a core performance area, alongside sales, profitability and market share, rather than as a narrow information technology or marketing initiative. Senior management is advised to adopt an integrated, customer-centric omnichannel framework that coordinates product, pricing, promotion, information, logistics, and service across all touchpoints, ensuring customers experience a single, coherent journey.

The findings indicate that retailers should prioritise the strengthening of those OCCE dimensions that have emerged as most critical in the model. Product, price, and promotion parity for identical stock-keeping units (SKUs) should be the norm, supported by a single product catalogue and content repository, ensuring specifications, availability, media, and reviews remain consistent across websites, mobile applications, marketplaces, and physical stores. Basket continuity across devices and the ability to buy online, pick up, or return in-store reduce friction at critical points of the journey. Since purchases of technical consumer goods are deliberative, parity and continuity directly lower search costs and perceived risk, improving both OCCE and conversion.

Information integration and trust building form the second pillar. Real-time inventory visibility at the store–SKU level, reliable delivery windows published at checkout, and clear warranty and returns information reduce uncertainty for high-value appliances and electronics. Credible assistance—through verified ratings, frequently asked questions (FAQs), comparison tools, installation guides, and total cost-of-ownership disclosures—helps customers make confident choices. Trust signals at checkout, including secure payment rails and strong authentication, further reduce cart abandonment. In a market where brand trust and post-purchase assurance are decisive, these measures convert stated intent into completed orders.

Retailers should make integrated customer service a normal, everyday practice rather than an isolated initiative. Customers should not be forced to repeat their story every time they switch from chat to a phone call or walk into a store. A single case ID that is visible across all channels could help staff pick up where the last interaction ended, reduce duplication, and resolve issues quickly. More complex problems should be directed to trained advisors who understand technical consumer goods. The post-purchase phase also requires tools such as automated reminders for installation, clear usage instructions, easy warranty registration, and alerts for basic maintenance, which can help ensure that products work properly the first time and reduce unnecessary calls and returns. Together, these practices build the assurance and reliability that this study shows to be especially important for a positive omnichannel experience.

The study further suggests that retailers should design and implement segment-specific omnichannel strategies that recognise the diversity of the Indian market. The analysis reveals systematic differences across gender, age, and income groups. Managers are therefore encouraged to tailor communication, interface design, service support and financing options to

the needs and constraints of these segments, rather than relying on a uniform omnichannel approach. Some segments may value responsive service and reassurance more strongly, while others may respond more to rich information and experiential features.

On the operational side, the study recommends that retailers develop the organisational and technological capabilities required to support integrated omnichannel delivery. This includes unified customer and product data, shared order and ticket management systems across channels, and common service standards for response time, information accuracy and fulfilment reliability. Training frontline staff to consistently handle cross-channel interactions is also recommended, so that customers do not experience fragmentation when moving between online and offline touchpoints.

The study proposes that the OCCE Index developed in this research be adopted as a practical diagnostic tool. Retailers are encouraged to use the OCCE Index to periodically measure the experiences of their omnichannel customers, disaggregate scores across channels and segments, and identify specific dimensions where improvement is required. The Index can support evidence-based decisions on where to refine or restructure omnichannel frameworks, and can be linked to key performance indicators such as repeat purchase, word-of-mouth, and service costs. In this way, the study suggests that the OCCE Index can become an integral part of a continuous improvement cycle for managing omnichannel experiences in the technical consumer goods sector.

Finally, managers should stop practices that erode trust: channel-exclusive prices that encourage customers to hunt and fine-print exceptions that contradict headline promises on delivery or returns. In a diverse Indian market, OCCE leadership does not come from sporadic feature launches but from disciplined integration of offers, information, and service—reinforced by credible assurances and segment-aware design. Executed in this manner, omnichannel transformation improves customer outcomes and delivers measurable financial returns, creating a defensible competitive position in the TCG sector.

9.6 Limitations of the Study

Despite its contributions, the study is subject to the following limitations:

- The research adopts a cross-sectional design, which limits the ability to observe changes in omnichannel customer experiences over time. As retailers in India continue to expand

and refine their omnichannel frameworks, the cross-sectional nature of data limits dynamic interpretations.

- The study is based on a sample of 703 respondents drawn from different states across India. While the sample size is statistically adequate for the techniques employed in the study, a larger, more geographically balanced sample could enhance the model's predictive power and the generalisability of the findings across diverse regional contexts in India.
- The study relies on self-reported data collected through structured questionnaires, which may be susceptible to response biases. Although appropriate procedures were implemented to ensure the absence of bias and the reliability and validity of the responses, they may still reflect participants' subjective perceptions and interpretations rather than their actual behaviour, potentially influencing the accuracy of the results.

9.7 Scope for Future Research

The study provides several avenues for future research to deepen and broaden the understanding of OCCE in the technical consumer goods sector and beyond. These suggestions could also address the existing limitations of the study.

- Future studies could examine additional antecedents of OCCE discussed in prior literature, such as technology readiness, perceived convenience, perceived logistics performance and omnichannel loyalty programmes. Incorporating these variables in future models would offer a more comprehensive insight into what determines customer experience in omnichannel frameworks.
- Building on the findings of this study, subsequent work could examine whether the antecedents identified for OCCE in the technical consumer goods sector also drive customer experiences in other high-involvement sectors (automobiles, furniture, precious jewellery).
- The established moderating effect of demographics invites replication and extension using other moderators such as channel preference, digital literacy, and type of omnichannel user.

- Future work should examine additional mediators (customer delight, brand attachment) and broaden the set of outcomes to include cross-buying, channel migration, and share of wallet to understand the full impact of OCCE.
- Future studies could employ qualitative methods such as interviews and journey mapping to capture actual omnichannel paths (webrooming, showrooming) and verify whether the proposed OCCE dimensions and antecedents predict revealed behaviour as well as stated intentions.
- A longitudinal research design would allow researchers to test how shifts in integration, risk, and trust over time translate into evolving satisfaction, repurchase intention, and word-of-mouth, rather than relying on a single cross-sectional view of the customer journey.

REFERENCES

Ahmad Mahyadin, F. (2024). Factors Influencing Consumer Intention to Purchase via Omni-Channel Fashion Retail in Malaysia. *Journal Européen Des Systèmes Automatisés*, *57*(1), 9–19. https://doi.org/10.18280/jesa.570102

Akturan, U., & Kuter, D. (2024). Amplifying commitment and word-of-mouth in fashion retailing through omni-channel experiences. *International Journal of Retail & Distribution Management*, *52*(6), 706–720. https://doi.org/10.1108/IJRDM-09-2023-0545

Al-Adamat, A. M., Alserhan, A. F., Almomani, H. M., Alserhan, J. A., & Alkhawaldeh, A. E. (2024). Investigating the influence of omnichannel retailing on consumer decision making in the Jordanian market. *Uncertain Supply Chain Management*, *12*(4), 2159–2166. https://doi.org/10.5267/j.uscm.2024.6.014

Alesanco-Llorente, M., Reinares-Lara, E., Pelegrín-Borondo, J., & Olarte-Pascual, C. (2023). Mobile-assisted showrooming behavior and the (r)evolution of retail: The moderating effect of gender on the adoption of mobile augmented reality. *Technological Forecasting and Social Change*, *191*, 122514. https://doi.org/10.1016/j.techfore.2023.122514

AlHarbi, A., Heavin, C., & Carton, F. (2016). Improving customer oriented decision making through the customer interaction approach. *Journal of Decision Systems*, *25*(S1), 50–63. https://doi.org/10.1080/12460125.2016.1187417

Alvesson, M., & Sandberg, J. (2013). *Constructing Research Questions: Doing Interesting Research*. SAGE Publications Ltd. https://doi.org/10.4135/9781446270035

Ameen, N., Tarhini, A., Shah, M., & Nusair, K. (2020). A cross-cultural study of gender differences in omnichannel retailing contexts. *Journal of Retailing and Consumer Services*. https://doi.org/10.1016/j.jretconser.2020.102265

Ariffin, S. K., Mohan, T., & Goh, Y.-N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, *12*(3), 309–327. https://doi.org/10.1108/JRIM-11-2017-0100

Arora, L., & Sharma, B. K. (2018). Influence of Review Quality, Review Quantity and Review Credibility on Purchase Intention in the context of High Involvement Products. *European Journal of Applied Business Management*, *4*(4), 25–40. https://doi.org/10.58869/EJABM

Bagdare, S., & Jain, R. (2013). Measuring retail customer experience. *International Journal of Retail & Distribution Management*, *41*(10), 790–804. https://doi.org/10.1108/IJRDM-08-2012-0084

Bahri, R. S., Susan, M., & Gunawan, T. (2023). Exploring the Influence of Omnichannel Experience on Trust and Repurchase Intention in Retail Companies: Evidence from Indonesia. *Journal of Law and Sustainable Development*, *11*(2), e631. https://doi.org/10.55908/sdgs.v11i2.631

Barari, M., Ross, M., & Surachartkumtonkun, J. (2020). Negative and positive customer shopping experience in an online context. *Journal of Retailing and Consumer Services*, *53*, 101985. https://doi.org/10.1016/j.jretconser.2019.101985

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of*

Personality and Social Psychology, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Basu, R., & Sondhi, N. (2021). Online versus offline: Preferred retail choice for premium brand purchase. *International Journal of Retail & Distribution Management*, *49*(10), 1447–1463. https://doi.org/10.1108/IJRDM-05-2020-0181

Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology*, *24*(4), 586–607. https://doi.org/10.1016/j.jcps.2014.05.002

Brynjolfsson, E., Hu, Y. J., & Rahman, M. S. (2013). Competing in the Age of Omnichannel Retailing. *MIT Sloan Management Review*. *54*(4), 23–29. https://sloanreview.mit.edu/article/competing-in-the-age-of-omnichannel-retailing/

Buckley, J. A. B., & Feldman, P. S. M. (2024). Effects of channel integration on the omnichannel customer experience. *Cogent Business & Management*, *11*(1), 2364841. https://doi.org/10.1080/23311975.2024.2364841

Butkouskaya, V., Oyner, O., & Kazakov, S. (2023). The impact of omnichannel integrated marketing communications (IMC) on product and retail service satisfaction. *Journal of Economics, Finance and Administrative Science*, *28*(56), 319–334. https://doi.org/10.1108/JEFAS-09-2022-0237

Calder, B. J., Phillips, L. W., & Tybout, A. M. (1981). Designing Research for Application. *Journal of Consumer Research*, *8*(2), 197–207. https://doi.org/10.1086/208856

Calvo, A. V., Franco, A. D., & Frasquet, M. (2023). The role of artificial intelligence in improving the omnichannel customer experience. *International Journal of Retail &*

Distribution Management, *51*(9/10), 1174–1194. https://doi.org/10.1108/IJRDM-12-2022-0493

Cavana, R., Delahaye, B., & Sekeran, U. (2001). Applied Business Research: Qualitative and Quantitative Methods.

Chang, Y., & Geng, L. (2022). Planned or unplanned purchases? The effects of perceived values on omnichannel continuance intention. *International Journal of Retail & Distribution Management*, *50*(12), 1535–1551. https://doi.org/10.1108/IJRDM-01-2021-0012

Chatterjee, S., Chaudhuri, R., Vrontis, D., & Hussain, Z. (2021). Usage of smartphone for financial transactions: From the consumer privacy perspective. *Journal of Consumer Marketing*, *40*(2), 193–208. https://doi.org/10.1108/JCM-03-2021-4526

Chen, X., Lian, C., Zheng, M., & Guan, S. (2024). What drives customer engagement in fresh food omnichannel retailing? The role of omnichannel integration, flow experience, and customer relationship quality. *Current Psychology*, *43*(40), 31770–31788. https://doi.org/10.1007/s12144-024-06714-x

Chen, Y., & Chi, T. (2024). Beyond the storefront: Empirical insights into consumers' responses to omnichannel apparel retailers. *Marketing Intelligence & Planning*, *42*(2), 284–303. https://doi.org/10.1108/MIP-06-2023-0306

Choi, J., Madhavaram, S. R., & Park, H. Y. (2020). The Role of Hedonic and Utilitarian Motives on the Effectiveness of Partitioned Pricing. *Journal of Retailing*, *96*(2), 251–265. https://doi.org/10.1016/j.jretai.2019.10.003

Chopra, S. (2016). How omni-channel can be the future of retailing. *Decision*, *43*(2), 135–144. https://doi.org/10.1007/s40622-015-0118-9

Choubey, V., & Gautam, A. (2024). Evaluating omni channel retailing in the emergence of industry 5.0: A perspective of South Asian generation Z. *International Journal of Information Management Data Insights*, *4*(2), 100257. https://doi.org/10.1016/j.jjimei.2024.100257

Cook, G. (2014). Customer experience in the omni-channel world and the challenges and opportunities this presents. *Journal of Direct, Data and Digital Marketing Practice*, *15*(4), Article 4. https://doi.org/10.1057/dddmp.2014.16

Cotarelo, M., Fayos, T., Calderón, H., & Mollá, A. (2021). Omni-Channel Intensity and Shopping Value as Key Drivers of Customer Satisfaction and Loyalty. *Sustainability*, *13*(11), Article 11. https://doi.org/10.3390/su13115961

Crick, J. M. (2024). Analyzing survey data in marketing research: A guide for academics and postgraduate students. *Journal of Strategic Marketing*, *32*(2), 203–215. https://doi.org/10.1080/0965254X.2023.2176533

Creswell, J. W., & Creswell, J. D. (2025, July 20). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications Ltd. https://uk.sagepub.com/en-gb/eur/research-design/book270550

Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, *76*(2), 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2

Cunnane, C. (2012). *The 2012 Omni-Channel Retail Experience* (p. 16). Aberdeen Group. https://risnews.com/secure-file/13935

Dabrynin, H., & Zhang, J. (2019). The Investigation of the Online Customer Experience and Perceived Risk on Purchase Intention in China. *Journal of Marketing Development and Competitiveness*, *13*(2). https://doi.org/10.33423/jmdc.v13i2.2005

DeVellis, R. (2017). Scale Development: Theory and Applications (4th ed.). Sage.

Edvardsson, B., Friman, M., & Roos, I. (2007). Service Quality Grounded in Customer Experiences, Affect and Relationships. In M. H. J. Gouthier, C. Coenen, H. S. Schulze, & C. Wegmann (Eds), *Service Excellence als Impulsgeber: Strategien—Management—Innovationen—Branchen* (pp. 271–285). Gabler. https://doi.org/10.1007/978-3-8349-9544-5_16

Eisingerich, A. B., Chun, H. H., Liu, Y., Jia, H. (Michael), & Bell, S. J. (2015). Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth. *Journal of Consumer Psychology*, *25*(1), 120–128. https://doi.org/10.1016/j.jcps.2014.05.004

Emergence of Omnichannel retail in India. (2020, January 13). *Televisory*. https://www.televisory.com/blogs/-/blogs/emergence-of-omnichannel-retail-in-india

Ewerhard, A.-C., Sisovsky, K., & Johansson, U. (2019). Consumer decision-making of slow moving consumer goods in the age of multi-channels. *The International Review of Retail, Distribution and Consumer Research*, *29*(1), 1–22. https://doi.org/10.1080/09593969.2018.1537191

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human-Computer Studies*, *59*(4), 451–474. https://doi.org/10.1016/S1071-5819(03)00111-3

Flick, U. (2014). *The SAGE Handbook of Qualitative Data Analysis*. SAGE Publications, Inc. https://doi.org/10.4135/9781446282243

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, *18*(3), 382–388. https://doi.org/10.1177/002224378101800313

Frasquet, M., & Miquel, M.-J. (2017). Do channel integration efforts pay-off in terms of online and offline customer loyalty? *International Journal of Retail & Distribution Management*, *45*(7/8), 859–873. https://doi.org/10.1108/IJRDM-10-2016-0175

Frasquet-Deltoro, M., Molla-Descals, A., & Miquel-Romero, M.-J. (2021). Omnichannel retailer brand experience: Conceptualisation and proposal of a comprehensive scale. *Journal of Brand Management*, *28*(4), 388–401. https://doi.org/10.1057/s41262-021-00233-x

Future of consumer durables and electronics in India: The changing landscape (p. 44). (2018). Consumer Electronics & Appliances Manufacturers Association & PricewaterhouseCoopers Private Limited.

Gahler, M., Klein, J. F., & Paul, M. (2023). Customer Experience: Conceptualization, Measurement, and Application in Omnichannel Environments. *Journal of Service Research*, *26*(2), 191–211. https://doi.org/10.1177/10946705221126590

Gao, W., & Fan, H. (2021). Omni-Channel Customer Experience (In)Consistency and Service Success: A Study Based on Polynomial Regression Analysis. *Journal of Theoretical and Applied Electronic Commerce Research*, *16*(6), Article 6. https://doi.org/10.3390/jtaer16060112

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. https://doi.org/10.1016/j.jbusres.2020.12.056

Gao, W., & Jiang, N. (2024). Demystifying the Combined Effect of Consistency and Seamlessness on the Omnichannel Customer Experience: A Polynomial Regression Analysis. *Journal of Theoretical and Applied Electronic Commerce Research*, *19*(1), 232–248. https://doi.org/10.3390/jtaer19010013

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. https://doi.org/10.1016/j.jretconser.2021.102487

Gentile, C., Spiller, N., & Noci, G. (2007). How to Sustain the Customer Experience: An Overview of Experience Components that Co-create Value With the Customer. *European Management Journal*, *25*(5), 395–410. https://doi.org/10.1016/j.emj.2007.08.005

Goodhue, Lewis, & Thompson. (2012). Does PLS Have Advantages for Small Sample Size or Non-Normal Data? *MIS Quarterly*, *36*(3), 981. https://doi.org/10.2307/41703490

Goodman, J. K., & Paolacci, G. (2017). Crowdsourcing Consumer Research. *Journal of Consumer Research*, *44*(1), 196–210. https://doi.org/10.1093/jcr/ucx047

Gupta, R., Kumar, V., Kaushik, A. K., & Gupta, D. D. (2023). Analysing the Impact of Omni-channel Customer Delight on Repurchase Intention. *Global Business Review*, 09721509231178969. https://doi.org/10.1177/09721509231178969

Ha, V. D., Nguyen, T. T., & Nguyen, L. T. T. (2024). A study on retailers' behavioral intention and behavior of using the omnichannel ecommerce solution. *Journal of Infrastructure, Policy and Development*, *8*(8), 5761. https://doi.org/10.24294/jipd.v8i8.5761

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling*.

Hair Jr., J., Page, M., & Brunsveld, N. (2019). *Essentials of Business Research Methods* (4th edn). Routledge. https://doi.org/10.4324/9780429203374

Handoyo, S. (2024). Purchasing in the digital age: A meta-analytical perspective on trust, risk, security, and e-WOM in e-commerce. *Heliyon*, *10*(8), e29714. https://doi.org/10.1016/j.heliyon.2024.e29714

Hasbullah, N. N., Kiflee, A. K. R., Rahim, H., Shahid, F. Z., Anwar, S., & Ramachandran, K. K. (2025). Exploring the adoption of sustainable omni-channel grocery technologies among generation Z in Malaysia: The moderating role of risk mitigation for perishability. *Discover Sustainability*, *6*(1), 336. https://doi.org/10.1007/s43621-025-01191-z

Hefnawy, A. E., & Mohammed, A. S. (2014). Review Of Different Methods For Deriving Weights In The Analytic Hierarchy Process. *International Journal of the Analytic Hierarchy Process*, *6*(1). https://doi.org/10.13033/ijahp.v6i1.226

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, *18*(1), 38–52. https://doi.org/10.1002/dir.10073

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. https://doi.org/10.1007/s11747-014-0403-8

Herhausen, D., Binder, J., Schoegel, M., & Herrmann, A. (2015). Integrating Bricks with Clicks: Retailer-Level and Channel-Level Outcomes of Online–Offline Channel Integration. *Journal of Retailing*, *91*(2), 309–325. https://doi.org/10.1016/j.jretai.2014.12.009

Hickman, E., Kharouf, H., & Sekhon, H. (2020). An omnichannel approach to retailing: Demystifying and identifying the factors influencing an omnichannel experience. *The International Review of Retail, Distribution and Consumer Research*, *30*(3), 266–288. https://doi.org/10.1080/09593969.2019.1694562

Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic Consumption: Emerging Concepts, Methods and Propositions. *Journal of Marketing*, *46*(3), 92–101. https://doi.org/10.1177/002224298204600314

Ho, W. (2008). Integrated analytic hierarchy process and its applications – A literature review. *European Journal of Operational Research*, *186*(1), 211–228. https://doi.org/10.1016/j.ejor.2007.01.004

Houston, M. B. (2019). Four facets of rigor. *Journal of the Academy of Marketing Science*, *47*(4), 570–573. https://doi.org/10.1007/s11747-019-00665-7

Hua, H., Wang, W., & Wang, H. (2025). Research on the customer responses to Omni-channel: Heterogeneity of channel integration modes. *Electronic Commerce Research*. https://doi.org/10.1007/s10660-025-09955-5

Hübner, A., Wollenburg, J., & Holzapfel, A. (2016). Retail logistics in the transition from multi-channel to omni-channel. *International Journal of Physical Distribution & Logistics Management*, *46*(6/7), 562–583. https://doi.org/10.1108/IJPDLM-08-2015-0179

Hult, G. T. M., Sharma, P. N., Morgeson, F. V., & Zhang, Y. (2019). Antecedents and Consequences of Customer Satisfaction: Do They Differ Across Online and Offline Purchases? *Journal of Retailing*, *95*(1), 10–23. https://doi.org/10.1016/j.jretai.2018.10.003

Huré, E., Picot-Coupey, K., & Ackermann, C.-L. (2017). Understanding omni-channel shopping value: A mixed-method study. *Journal of Retailing and Consumer Services*, *39*, 314–330. https://doi.org/10.1016/j.jretconser.2017.08.011

Iglesias-Pradas, S., Acquila-Natale, E., & Del-Río-Carazo, L. (2022). Omnichannel retailing: A tale of three sectors. *Economic Research-Ekonomska Istraživanja*, *35*(1), 3305–3336. https://doi.org/10.1080/1331677X.2021.1991825

International TCG Retail Summit Smart Report (Special Edition - 5th International TCG Retail Summit No. 4; Issue 4). (2018).

Jaengprajak, W., & Chaipoopiratana, S. (2022). Determining Antecedents To Omnichannel Shopping Intention Among Fast Fashion Consumers In Thailand: A Mixed Methods Approach. *ABAC Journal*, *42*(2), 1–26. https://doi.org/10.14456/abacj.2022.2

Jayasingh, S., Girija, T., & Arunkumar, S. (2022). Determinants of Omnichannel Shopping Intention for Sporting Goods. *Sustainability*, *14*(21), 14109. https://doi.org/10.3390/su142114109

Jeong, E., & Jo, H. (2024). Omnichannel word-of-mouth genesis: The confluence of online-offline experiences, social influence and skepticism. *Asia Pacific Journal of Marketing and Logistics*. https://doi.org/10.1108/APJML-03-2024-0259

Jo, H., & Bang, Y. (2024). Navigating the Omnichannel Landscape: Unraveling the Antecedents of Customer Loyalty. *Sage Open*, *14*(1), 21582440241233091. https://doi.org/10.1177/21582440241233091

Johnson, O., & Ramirez, S. A. (2020). The influence of showrooming on Millennial generational cohorts online shopping behaviour. *International Journal of Retail & Distribution Management*, *49*(1), 81–103. https://doi.org/10.1108/IJRDM-03-2020-0085

Johnson, T. P. (2014). Snowball Sampling: Introduction. In *Wiley StatsRef: Statistics Reference Online*. John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118445112.stat05720

Joshi, A., Pani, A., Sahu, P. K., Majumdar, B. B., & Tavasszy, L. (2024). Gender and generational differences in omnichannel shopping travel decisions: What drives consumer choices to pick up in-store or ship direct? *Research in Transportation Economics*, *103*, 101403. https://doi.org/10.1016/j.retrec.2023.101403

Juaneda-Ayensa, E., Mosquera, A., & Sierra Murillo, Y. (2016). Omnichannel Customer Behavior: Key Drivers of Technology Acceptance and Use and Their Effects on Purchase Intention. *Frontiers in Psychology*, *7*. https://doi.org/10.3389/fpsyg.2016.01117

Kalayci, E., Becker, J. U., & Barrot, C. (2024). Understanding customers' choice for digital D2C versus multi-brand operations. *Journal of Retailing*, *100*(2), 256–273. https://doi.org/10.1016/j.jretai.2024.02.001

Kamaladevi, B. (2010). Customer Experience Management In Retailing. *Business Intelligence Journal*, *3*(1), Article 1. https://doi.org/10.2139/ssrn.1476839

Kaur, K., & Sandhu, S. K. (2022). Examining Factors Influencing Fashion Apparel Purchases in Omni-Channel Retailing: A Post-Covid-19 Study. *Transnational Marketing Journal*, *10*(3), 793–807. https://doi.org/10.33182/tmj.v10i3.2182

Kazancoglu, I., & Aydin, H. (2018). An investigation of consumers' purchase intentions towards omni-channel shopping: A qualitative exploratory study. *International Journal of Retail & Distribution Management*, *46*(10), 959–976. https://doi.org/10.1108/IJRDM-04-2018-0074

Khalid, B. (2024). Evaluating customer perspectives on omnichannel shopping satisfaction in the fashion retail sector. *Heliyon*, *10*(16). https://doi.org/10.1016/j.heliyon.2024.e36027

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, *44*(2), 544–564. https://doi.org/10.1016/j.dss.2007.07.001

Kim, J., & Kim, Y. (2017). Determining Customer Experience Innovation: Exploring A Dynamic Model Of Customer Responses In Negative Service Encounters. *Dubrovnik International Economic Meeting*, *3*(1), 597–620.

Kim, R. B., Matsui, T., Park, Y. J., & Okutani, T. (2019). Perceived Consumer Value of Omni-Channel Service Attributes in Japan and Korea. *Engineering Economics*, *30*(5), 621–630. https://doi.org/10.5755/j01.ee.30.5.22820

Klaus, P., & Maklan, S. (2012). EXQ: A multiple-item scale for assessing service experience. *Journal of Service Management*, *23*(1), Article 1. https://doi.org/10.1108/09564231211208952

Klaus, P., & Maklan, S. (2013). Towards a Better Measure of Customer Experience. *International Journal of Market Research*, *55*(2), 227–246. https://doi.org/10.2501/IJMR-2013-021

Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management*, *86*, 104330. https://doi.org/10.1016/j.tourman.2021.104330

Kock, N. (2015). Common Method Bias in PLS-SEM: A Full Collinearity Assessment Approach. *International Journal of E-Collaboration*, *11*(4), 1–10. https://doi.org/10.4018/ijec.2015100101

Kriss, P. (2014). The Value of Customer Experience, Quantified. *Harvard Business Review*. https://hbr.org/2014/08/the-value-of-customer-experience-quantified

Kumar, G., & Uma, V. R. (2019). An Optimized Technique to Foster Omnichannel Retail Experience Leveraging Key Technology Dimensions in the Context of an Emerging Digital Market. *International Journal of Engineering and Advanced Technology*, *8*(6), 5056–5061. https://doi.org/10.35940/ijeat.F9550.088619

Kusumawardani, K. A., Widyanto, H. A., & Tambunan, J. E. G. (2023). The role of gamification, social, hedonic and utilitarian values on e-commerce adoption. *Spanish Journal of Marketing - ESIC*, *27*(2), 158–177. https://doi.org/10.1108/SJME-09-2022-0188

Lazaris, C., Sarantopoulos, Panagiotis, Vrechopoulos, Adam, & and Doukidis, G. (2021). Effects of Increased Omnichannel Integration on Customer Satisfaction and Loyalty Intentions. *International Journal of Electronic Commerce*, *25*(4), 440–468. https://doi.org/10.1080/10864415.2021.1967005

Lee, S., & Lim, T. (2017). Retailer's Innovative Differentiation Method Based on Customer Experience: Focusing Mediating Effect of Omni-channel Shopper Type. *Quality Innovation Prosperity*, *21*(2), 37. https://doi.org/10.12776/qip.v21i2.864

Lee, W. (2020). Unravelling Consumer Responses to Omni-Channel Approach. *Journal of Theoretical and Applied Electronic Commerce Research*, *15*(3), 37–49. https://doi.org/10.4067/S0718-18762020000300104

Lee, Z. W. Y., Chan, T. K. H., 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. https://doi.org/10.1016/j.indmarman.2018.12.004

Lemon, K. N., & Verhoef, P. C. (2016). Understanding Customer Experience Throughout the Customer Journey. *Journal of Marketing*, *80*(6), Article 6. https://doi.org/10.1509/jm.15.0420

Li, C.-Y., Liao, C.-H., & Fang, Y.-H. (2025). A dedication-constraint model of omnichannel shopping journey. *Electronic Markets*, *35*(1), 26. https://doi.org/10.1007/s12525-025-00774-y

Li, J., & Chang, Y. (2024). The influence of seamless shopping experience on customers' word of mouth on social media. *Journal of Services Marketing*, *38*(5), 578–600. https://doi.org/10.1108/JSM-04-2023-0135

Lim, W. M., Khatri, P., Shiva, A., & Dabas, V. (2026). Guidelines for Scale Development and Validation. *Journal of Consumer Behaviour*, *25*(2), 953–973. https://doi.org/10.1002/cb.70096

Liu, Y., & Zheng, S. (2023). Factors affecting consumers' purchase intention for agriculture products omni-channel. *Frontiers in Psychology*, *13*, 948982. https://doi.org/10.3389/fpsyg.2022.948982

Lofland, J., & Lofland, L. (1984). *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis* (3rd ed.). Wadsworth Publishing Company.

Lynch, J. G., Jr. (1982). On the External Validity of Experiments in Consumer Research. *Journal of Consumer Research*, *9*(3), 225–239. https://doi.org/10.1086/208919

Marinao-Artiga, E., Wei-Chen, S., Limongi, R., & Laroze, D. (2025). Online Shopping Experience Drives of Online Shopping Intention: Role of Omnichannel Shopping Trust. *Review of Business Management*, *27*(1), 1–24. https://doi.org/10.7819/rbgn.v27i01.4292

Melero, I., Sese, J., & Verhoef, P. C. (2016). Recasting the Customer Experience in Today's Omni-channel Environment. *Universia Business Review*, *Second Quarter*. https://doi.org/10.3232/UBR.2016.V13.N2.01

Meyer, C., & Schwager, A. (2007). Understanding Customer Experience. *Harvard Business Review*, *85*(2), 116–126, 157 .

Mishra, R., Singh, R. K., & Mani, V. (2023). A hybrid multi criteria decision-making framework to facilitate omnichannel adoption in logistics: An empirical case study. *Annals of Operations Research*, *326*(2), 685–719. https://doi.org/10.1007/s10479-022-04823-z

Mishra, S., Malhotra, G., Arora, V., & Mukhopadhyay, S. (2021). Omnichannel retailing: Does it empower consumers and influence patronage? *International Journal of Retail & Distribution Management*, *50*(2), 229–250. https://doi.org/10.1108/IJRDM-04-2021-0199

Mishra, S., Mishra, M., Pandey, P. K., Pandey, P. K., Mahajan, S., & Shah, M. A. (2024). Formation of customer value through channel integration: Modelling the mediating role of cognitive and affective customer experience in the omni channel retail context. *Cogent Business & Management*, *11*(1), 2349270. https://doi.org/10.1080/23311975.2024.2349270

Moliner, M. A., & Tortosa-Edo, V. (2023). Multirooming: Generating e-satisfaction throughout omnichannel consumer journey design and online customer experience. *Journal of Research in Interactive Marketing*. https://doi.org/10.1108/JRIM-05-2023-0149

Mosquera, A., Juaneda-Ayensa, E., Olarte-Pascual, C., & Pelegrín-Borondo, J. (2018). Key Factors for In-Store Smartphone Use in an Omnichannel Experience: Millennials vs. Nonmillennials. *Complexity*, *2018*, 14. https://doi.org/10.1155/2018/1057356

Mosquera, A., Olarte Pascual, C., & Juaneda Ayensa, E. (2017). Understanding the customer experience in the age of omni-channel shopping. *ICONO14*, *15*(2), 166–185. https://doi.org/10.7195/ri14.v15i2.1070

Mosquera, A., Olarte-Pascual, C., Juaneda Ayensa, E., & Sierra Murillo, Y. (2018). The role of technology in an omnichannel physical store: Assessing the moderating effect of gender. *Spanish Journal of Marketing - ESIC*, *22*(1), 63–82. https://doi.org/10.1108/SJME-03-2018-008

Natarajan, T., & Veera, R. D. R. (2023). How integrated store-service quality promotes omnichannel shoppers' word-of-mouth behaviors: The moderating role of perceived relationship investment and the shopper's perceived value. *The TQM Journal*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/TQM-12-2022-0364

Neslin, S. A., Jerath, K., Bodapati, A., Bradlow, E. T., Deighton, J., Gensler, S., Lee, L., Montaguti, E., Telang, R., Venkatesan, R., Verhoef, P. C., & Zhang, Z. J. (2014). The interrelationships between brand and channel choice. *Marketing Letters*, *2014*(25), Article 25. https://doi.org/10.1007/s11002-014-9305-2

Ngo, T. T. A., Nguyen, H. L. T., Nguyen, H. P., Mai, H. T. A., Mai, T. H. T., & Hoang, P. L. (2024). A comprehensive study on factors influencing online impulse buying behavior: Evidence from Shopee video platform. *Heliyon*, *10*(15), e35743. https://doi.org/10.1016/j.heliyon.2024.e35743

Nguyen, H. N. (2021). Channel Integration Quality, Customer Experience and Patronage in Omnichannel Retailing. *Journal of Distribution Science*, *19*(12), 23–32. https://doi.org/10.15722/JDS.19.12.202112.23

Nguyen, H. N., & Tran, M. D. (2023). Antecedents and outcomes of omnichannel retail customer experience. *International Journal of Electronic Marketing and Retailing*, *14*(2), 171–189. https://doi.org/10.1504/IJEMR.2023.129883

Nordfalt, J. (2005). Is Consumer Decision-Making Out of Control? Non-Conscious Influences on Consumer Decision-Making for Fast Moving Consumer Goods [PhD diss.]. Stockholm School of Economics.

Novak, T. P., Hoffman, D. L., & Yung, Y.-F. (2000). Measuring the Customer Experience in Online Environments: A Structural Modeling Approach. *Marketing Science*, *19*(1), 22–42. https://doi.org/10.1287/mksc.19.1.22.15184

Ogruk, G., Trisha, A., & Nacass, A. S. (2018). In-Store Customer Experience and Customer Emotional State in the Retail Industry. *Journal of Research for Consumers*, *32*, 110–141.

Oh, L., Teo, H., & Sambamurthy, V. (2012). The effects of retail channel integration through the use of information technologies on firm performance. *Journal of Operations Management*, *30*(5), 368–381. https://doi.org/10.1016/j.jom.2012.03.001

Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, *17*(4), 460–469. https://doi.org/10.2307/3150499

Oliver, R. L. (2014). Satisfaction: A Behavioral Perspective on the Consumer: A Behavioral Perspective on the Consumer (2nd ed.). Routledge. https://doi.org/10.4324/9781315700892

Orús, C., Gurrea, R., & Ibáñez-Sánchez, S. (2019). The impact of consumers' positive online recommendations on the omnichannel webrooming experience. *Spanish Journal of Marketing - ESIC*, *23*(3), 397–414. https://doi.org/10.1108/sjme-08-2019-0067

Palmer, A. (2010). Customer experience management: A critical review of an emerging idea. *Journal of Services Marketing*, *24*(3), 196–208. https://doi.org/10.1108/08876041011040604

Pantano, E., & Gandini, A. (2017). Exploring the forms of sociality mediated by innovative technologies in retail settings. *Computers in Human Behavior*, *77*, 367–373. https://doi.org/10.1016/j.chb.2017.02.036

Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak. *Journal of Business Research*, *116*, 209–213. https://doi.org/10.1016/j.jbusres.2020.05.036

Peng, D. X., & Lai, F. (2012). Using Partial Least Squares in Operations Management Research: A Practical Guideline and Summary of Past Research. *Journal of Operations Management*, *30*, 467–480. https://doi.org/0.1016/j.jom.2012.06.002

Peterson, R. A. (2001). On the Use of College Students in Social Science Research: Insights from a Second-Order Meta-analysis. *Journal of Consumer Research*, *28*(3), 450–461. https://doi.org/10.1086/323732

Pezzini, G. (2017, January 13). The Future of Retail: 8 Key Predictions. *LS Retail*.

Picot-Coupey, K., Huré, E., & Piveteau, L. (2016). Channel design to enrich customers' shopping experiences: Synchronizing clicks with bricks in an omni-channel perspective – the Direct Optic case. *International Journal of Retail & Distribution Management*, *44*(3), Article 3. https://doi.org/10.1108/IJRDM-04-2015-0056

Pine II, B. J., & Gilmore, J. H. (1998). Welcome to the Experience Economy. *Harvard Business Review*, *July-August 1998*. https://hbr.org/1998/07/welcome-to-the-experience-economy

Pine II, J., & Gilmore, J. (2017). Distinctive Experiences. *Journal of Shopper Research*, *1*(1). http://www.journalofshopperresearch.com/wp-content/uploads/2017/03/JSR-Iss1-V1-Gilmore-Pine.pdf

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. https://doi.org/10.2753/JEC1086-4415180400

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

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*, *98*(4), 611–632. https://doi.org/10.1016/j.jretai.2022.03.003

Rahman, S. M., Carlson, J., Gudergan, S. P., Wetzels, M., & Grewal, D. (2025). How do omnichannel customer experiences affect customer engagement? Theory and empirical validation. *Journal of Business Research*, *189*, 115196. https://doi.org/10.1016/j.jbusres.2025.115196

Riaz, H., Ahmed, H., & Jibril, A. B. (2024). Reassessing customer trust and privacy concerns in omnichannel customer experience. *Cogent Business & Management*, *11*(1), 2410405. https://doi.org/10.1080/23311975.2024.2410405

Riaz, H., Baig, U., Meidute-Kavaliauskiene, I., & Ahmed, H. (2022). Factors Effecting Omnichannel Customer Experience: Evidence from Fashion Retail. *Information*, *13*(1), Article 1. https://doi.org/10.3390/info13010012

Rigby, D. (2011). The Future of Shopping. *Harvard Business Review*, *89*(12), 65–76.

Rodríguez-Torrico, P., San, J. C. R., San-Martín, S., & Trabold, A. L. (2021). Let it flow: The role of seamlessness and the optimal experience on consumer word of mouth in

omnichannel marketing. *Journal of Research in Interactive Marketing*, *17*(1), 1–18. https://doi.org/10.1108/JRIM-06-2021-0154

Rooderkerk, R. P., & Kök, A. G. (2019). Omnichannel Assortment Planning. In S. Gallino & A. Moreno (Eds), *Operations in an Omnichannel World* (Vol. 8, pp. 51–86). Springer International Publishing. https://doi.org/10.1007/978-3-030-20119-7_4

Rose, S., Clark, M., Samouel, P., & Hair, N. (2012a). Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes. *Journal of Retailing*, *88*(2), 308–322. https://doi.org/10.1016/j.jretai.2012.03.001

Roy, S. K., Balaji, M. S., Sadeque, S., Nguyen, B., & Melewar, T. C. (2017). Constituents and consequences of smart customer experience in retailing. *Technological Forecasting and Social Change*, *124*, 257–270. https://doi.org/10.1016/j.techfore.2016.09.022

Russell, J. A., & Mehrabian, A. (1977). Evidence for a three-factor theory of emotions. *Journal of Research in Personality*, *11*(3), 273–294. https://doi.org/10.1016/0092-6566(77)90037-X

Saaty, T. L. (1977). A scaling method for priorities in hierarchical structures. *Journal of Mathematical Psychology*, *15*(3), 234–281. https://doi.org/10.1016/0022-2496(77)90033-5

Saaty, T. L. (1987). Rank Generation, Preservation, and Reversal in the Analytic Hierarchy Decision Process. *Decision Sciences*, *18*(2), 157–177. https://doi.org/10.1111/j.1540-5915.1987.tb01514.x

Saghiri, S., Wilding, R., Mena, C., & Bourlakis, M. (2017). Toward a Three-dimensional Framework for Omni-channel. *Journal of Business Research*, *77*, 53–67.

Salem, S. F., & Alanadoly, A. B. (2024). Driving customer engagement and citizenship behaviour in omnichannel retailing: Evidence from the fashion sector. *Spanish Journal of Marketing - ESIC*, *28*(1), 98–122. https://doi.org/10.1108/SJME-10-2022-0220

Schmitt, B. (2003). *Customer Experience Management. A Revolutionary Approach to Connecting with Your Customer.* John Wiley & Sons. https://www.scirp.org/reference/referencespapers?referenceid=2022202

Schmitt, B. (2009). Customer Experience Management. In M. Bruhn, F.-R. Esch, & T. Langner (Eds.), *Handbuch Kommunikation* (pp. 697–711). Gabler. https://doi.org/10.1007/978-3-8349-8078-6_33

Seiders, K., Voss, G. B., Grewal, D., & Godfrey, A. L. (2005). Do Satisfied Customers Buy More? Examining Moderating Influences in a Retailing Context. *Journal of Marketing*, *69*(4), 26–43. https://doi.org/10.1509/jmkg.2005.69.4.26

Serra-Cantallops, A., Ramon-Cardona, J., & Salvi, F. (2018). The impact of positive emotional experiences on eWOM generation and loyalty. *Spanish Journal of Marketing - ESIC*, *22*(2), 142–162. https://doi.org/10.1108/SJME-03-2018-0009

Shankar, V., Kalyanam, K., Setia, P., Golmohammadi, A., Tirunillai, S., Douglass, T., Hennessey, J., Bull, J. S., & Waddoups, R. (2021). How Technology is Changing Retail. *Journal of Retailing*, *97*(1), 13–27. https://doi.org/10.1016/j.jretai.2020.10.006

Sharma, M., Gupta, M., & Joshi, S. (2019). Adoption barriers in engaging young consumers in the Omni-channel retailing. *Young Consumers*, *21*(2), 193–210. https://doi.org/10.1108/YC-02-2019-0953

Sharma, N., & Dutta, N. (2025). Generational dynamics of omnichannel customers: Analysing shopping preferences across diverse product types. *International Journal of Retail &*

Distribution Management, *53*(4), 312–330. https://doi.org/10.1108/IJRDM-04-2024-0173

Sharma, N., Fatima, J. K., Sharma, S., & Amin, S. Z. (2024). Omnichannel shopping habit development. *International Journal of Consumer Studies*, *48*(4), e13072. https://doi.org/10.1111/ijcs.13072

Shen, X.-L., Li, Y.-J., Sun, Y., & Wang, N. (2018). Channel integration quality, perceived fluency and omnichannel service usage: The moderating roles of internal and external usage experience. *Decision Support Systems*, *109*, 61–73. https://doi.org/10.1016/j.dss.2018.01.006

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. https://doi.org/10.1016/j.ijinfomgt.2019.09.001

Silverman, D. (2020). *Qualitative research*. https://www.torrossa.com/gs/resourceProxy?an=5019251&publisher=FZ7200

Singh, S., & Srivastava, S. (2019). Engaging consumers in multichannel online retail environment: A moderation study of platform type on interaction of e-commerce and m-commerce. *Journal of Modelling in Management*, *14*(1), 49–76. https://doi.org/10.1108/JM2-09-2017-0098

Sinha, N., Kataria, N., & Kapoor, G. (2025). The Omnichannel symphony: Harmonising hearts and carts. *Management Decision*. https://doi.org/10.1108/MD-04-2024-0832

Siqueira, J. R., García Peña, N., ter Horst, E., & Molina, G. (2020). A 2020 perspective on "Spreading the word: How customer experience in a traditional retail setting influences

consumer traditional and electronic word-of-mouth intention". *Electronic Commerce Research and Applications*, *40*, 100930. https://doi.org/10.1016/j.elerap.2020.100930

Siqueira, J. R., Peña, N. G., ter Horst, E., & Molina, G. (2019). Spreading the Word: How Customer Experience in a Traditional Retail Setting Influences Consumer Traditional and Electronic Word-of-mouth Intention. *Electronic Commerce Research and Applications*, *37*, 11. https://doi.org/10.1016/j.elerap.2019.100870

Szopiński, T. S., Bachnik, K., & Nowacki, R. (2019). Cross-channel information search and patterns of consumer electronics purchasing. *Economic Research-Ekonomska Istraživanja*, *32*(1), Article 1. https://doi.org/10.1080/1331677X.2019.1691037

Taylor, S., & Todd, P. A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research*, *6*(2), 144–176.

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. https://doi.org/10.1016/j.jretconser.2020.102233

Vannucci, V., & Pantano, E. (2019). Digital or human touchpoints? Insights from consumer-facing in-store services. *Information Technology & People*, *33*(1), Article 1. https://doi.org/10.1108/ITP-02-2018-0113

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, *68*(1), 1–17. https://doi.org/10.1509/jmkg.68.1.1.24036

Venkatesh, Thong, & Xu. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, *36*(1), 157. https://doi.org/10.2307/41410412

Venkatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425. https://doi.org/10.2307/30036540

Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From Multi-Channel Retailing to Omni-Channel Retailing. *Journal of Retailing*, *91*(2), 174–181. https://doi.org/10.1016/j.jretai.2015.02.005

Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. (2009). Customer Experience Creation: Determinants, Dynamics and Management Strategies. *Journal of Retailing*, *85*(1), 31–41. https://doi.org/10.1016/j.jretai.2008.11.001

Walls, A. R., Okumus, F., Wang, Y. (Raymond), & Kwun, D. J.-W. (2011). An epistemological view of consumer experiences. *International Journal of Hospitality Management*, *30*(1), 10–21. https://doi.org/10.1016/j.ijhm.2010.03.008

Wang, J., Shahzad, F., Ahmad, Z., Abdullah, M., & Hassan, N. M. (2022). Trust and Consumers' Purchase Intention in a Social Commerce Platform: A Meta-Analytic Approach. *SAGE Open*, *12*(2), 21582440221091262. https://doi.org/10.1177/21582440221091262

Wathieu, L., Brenner, L., Carmon, Z., Chattopadhyay, A., Wertenbroch, K., Drolet, A., Gourville, J., Muthukrishnan, A. V., Novemsky, N., Ratner, R. K., & Wu, G. (2002). Consumer Control and Empowerment: A Primer. *Marketing Letters*, *13*(3), 297–305. https://doi.org/10.1023/A:1020311914022

Westbrook, R. A. (1987). Product/Consumption-Based Affective Responses and Postpurchase Processes. *Journal of Marketing Research*, *24*(3), 258–270. https://doi.org/10.2307/3151636

Wolfinbarger, M., & Gilly, M. C. (2003). eTailQ: Dimensionalizing, measuring and predicting etail quality. *Journal of Retailing*, *79*(3), 183–198. https://doi.org/10.1016/S0022-4359(03)00034-4

Wu, L.-Y., Chen, K.-Y., Chen, P.-Y., & Cheng, S.-L. (2014). Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective. *Journal of Business Research*, *67*(1), 2768–2776. https://doi.org/10.1016/j.jbusres.2012.09.007

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. https://doi.org/10.1016/j.ijpe.2018.12.009

Yang, Z., Hu, D., & Chen, X. (2024). The role of omnichannel integration and digital value in building brand trust: A customer psychological perception perspective. *Internet Research*. https://doi.org/10.1108/INTR-06-2023-0464

Yen, Y.-S. (2023). Channel integration in grocery retailers via mobile applications. *Marketing Intelligence & Planning*, *41*(4), 427–441. https://doi.org/10.1108/MIP-02-2022-0056

Yin, C.-C., Chiu, H.-C., Hsieh, Y.-C., & Kuo, C.-Y. (2022). How to retain customers in omnichannel retailing: Considering the roles of brand experience and purchase behavior. *Journal of Retailing and Consumer Services*, *69*, 103070. https://doi.org/10.1016/j.jretconser.2022.103070

Zeithaml, V. A., Berry, L., & Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, *60*(2). https://doi.org/10.1177/002224299606000203

Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, *30*(4), 362–375. https://doi.org/10.1177/009207002236911

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. https://doi.org/10.1016/j.elerap.2018.02.002

Zhang, X., Park, Y., Park, J., & Zhang, H. (2024). Demonstrating the influencing factors and outcomes of customer experience in omnichannel retail. *Journal of Retailing and Consumer Services*, *77*, 103622. https://doi.org/10.1016/j.jretconser.2023.103622

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*. Cengage Learning.

ANNEXURE I: QUESTIONNAIRE I

I am Maria Sancha Pereira working as an Assistant Professor at Rosary College of Commerce & Arts, Navelim Goa. I am currently pursuing my Ph.D at Goa University. I am conducting research in the area of Customer Experience in Omni-channel frameworks in the Technical Goods Sector across India. An omni-channel framework allows customers to carry out the buying process using more than one channel (online and offline) in a seamless manner. To carry out the study successfully, I need to collect data and hence I would really appreciate if you could spare a few minutes of your valuable time in filling the enclosed questionnaire. I assure you the confidentiality of the responses given by you and the usage of the same to be confined to academic research work only.

1) Have you purchased any technical goods (consumer electronics, household appliances, etc.)?

Consumer Electronics	**Please Tick**	**Mention the Brand**
1. Mobile phone		
2. Laptop		
3. Speaker		
4. Smart Watches		
5. Head phones		
Household Appliances		
1. Washing Machine		
2. Refrigerator		
3. Television		
4. Oven		
5. Air Conditioner		
Any other:		

2) Which of the following channels did you use while deciding and purchasing the goods? (You can choose more than 1 channel)

Channel for Decision making	**Please Tick**	**Channel for purchase**	**Please Tick**
1. Physical store		1. Physical store	
2. Website		2. Website	
3. Mobile application		3. Mobile application	
4. Social media page		4. Social media page	
Any other channel:		Any other channel:	

Demographic Profile

Gender

Male Female Transgender

Mention your state and city: _____--

Age (in years)

18-30 31-45 Above 45

Annual Income (in Rs)

Less than Rs 5 Lakhs 5 lakhs – 10 lakhs Above 10 lakhs

Education

Undergraduate Graduate Post Graduate Professionally Qualified

Antecedents of Omnichannel

Kindly evaluate the following points based on your past shopping experience while purchasing Technical Goods (consumer electronics, household appliances, etc.) on a scale of 1 – 7, where 1= Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Neutral, 5 = Somewhat Agree, 6 = Agree, 7 = Strongly Agree.

You may recollect your experience of purchasing a product in the category of consumer electronics/household appliances while responding to the following statements. For e.g. you may have purchased a Samsung refrigerator and before doing so, you checked for the same across online platforms (Samsung website, Amazon, Flipkart, Facebook, YouTube) and also made enquiries in the offline stores (Samsung store, Authorised retailers)

1. Integrated product, pricing & promotion	**1**	**2**	**3**	**4**	**5**	**6**	**7**
The brand name/tagline/logo are consistent both online and offline							
The Website highlights in-store promotions (eg new arrivals, discount sales, etc.) that are taking place in the Physical store							
Product descriptions are consistent in both the Offline store and Online platforms							
The Physical store advertises the Website through pamphlets/ receipts/carrying bags							
Information on stock availability is consistent in both the Offline store and Online platforms							
Product prices are consistent in both the Offline store and Online platforms							
2. Integrated Information	**1**	**2**	**3**	**4**	**5**	**6**	**7**
The brand keeps an integrated purchase history of my online and offline purchases							

The brand makes future purchase recommendations to me based on my past consolidated online and offline purchases							
The brand customises Web pages for me based on my past consolidated online and offline purchases							
The Brand allows me to check the inventory status at the Physical store through the Online platforms							
The physical store provides Internet kiosks to access the information and functionalities available on Online platforms							
3. Integrated Customer Service	**1**	**2**	**3**	**4**	**5**	**6**	**7**
The in-store customer service center accepts return, repair or exchange of products purchased online							
I am able to redeem the gift coupons/vouchers issued by the brand either online or offline							
The brand through its website provides post-purchase services such as returns, repairs for the products purchased at the physical store							
The brand through its website provides interactive access to the customer service assistant through a real-time chat program							
The brand allows me to choose any physical store to self-collect my online purchases							
4. Perceived Risk	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I believe that there's a high risk when making omnichannel (using more than 1 channel) purchase decisions.							

I am more likely to suffer losses when using omnichannel shopping to make purchase decisions.							
The probability that I will get a good bargain from omnichannel shopping is small.							
5. Perceived trust	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I feel my personal information is securely managed by the brand irrespective of my channel of shopping.							
I feel that the brand transmits my transactional information (order details) accurately.							
I would feel safe providing sensitive information (bank details, card numbers) over the omni-channel platforms							
I believe that this brand is reliable and trustworthy							
I believe that this brand's products and services are dependable							
6. Hedonic motivations	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Being able to use multiple channels throughout my purchase journey is enjoyable							
Being able to use multiple channels throughout my purchase journey is pleasurable							
Being able to use multiple channels throughout my purchase journey is interesting							
7. Integration	**1**	**2**	**3**	**4**	**5**	**6**	**7**
My interactions across different channels are integrated and taken into account for each purchase.							
Descriptions of products are integrated across different channels.							

New products are simultaneously launched across different channels.							
Product variants are available across different channels.							
8. Personalisation	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Shopping recommendations are offered according to purchase records and my personal information across different channels.							
Shopping discounts and privileges are offered based on purchase records and my personal information across different channels.							
Online browsing pages are customised based on purchase records and my personal information across different channels.							
Client-specific rewards or member points are offered based on my purchase history across different channels.							
9. Consistency	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Trademarks, brand names, and slogans are consistent across different channels.							
I receive consistent responses through different channels.							
The quality of products is consistent across different channels.							
The service performance is consistent across different channels.							
10. Flexibility	**1**	**2**	**3**	**4**	**5**	**6**	**7**

I can examine products in physical stores and order them online.							
I can choose alternative channels for a given service.							
I can order online and make payment and pick-up offline							
The after-sales service is available across different channels.							
I can accomplish specific tasks through preferred channels.							
11. Connectivity	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I can check inventory status across different channels.							
I can enquire about product information across different channels.							
I can check offline inventory through different online channels.							
My reading of contents is continuous and connected across different channels.							
My member accounts across different channels are connected.							
My interactions with customer service across different channels are interconnected.							
12. Customer Satisfaction	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I am satisfied with my overall experiences of omni-channel shopping.							
I am satisfied with the pre-purchase experience of omni-channel shopping (e.g., consumer education,							

product search, quality of information about products, product comparison).							
I am satisfied with the purchase experience of omni-channel shopping (e.g., ordering, payment procedure).							
I am satisfied with the post-purchase experience of omni-channel shopping (e.g., customer support and after sales support, handling of returns/refunds, delivery care).							
13. Re-Purchase Intention	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I will use omnichannel shopping in the near future.							
I intend to use omnichannel shopping frequently in the future.							
I prefer to recommend omnichannel shopping to people around me.							
14. WOM	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I would like to introduce omni-channel brands to others.							
I would speak favorably about the omni-channel brands to others.							
I would assist other customers with the omni-channel brands if they need my help.							
I would say positive things and recommend the omni-channel brands on social networking sites							
I would use social sites to encourage friends and relatives to buy the omni-channel brand's products							

ANNEXURE II: QUESTIONNAIRE II

Respected Sir/Madam

I am Maria Sancha Pereira currently pursuing my Ph.D from Goa University on the topic "An Analysis of the Antecedents and Outcomes of Customer Experience in Omnichannel Retailing: An Empirical Study in the Technical Consumer Goods Sector". One of the objectives of my work involves developing an omnichannel customer experience index. To fulfil this objective, I am using the Analytic Hierarchy Process (AHP) to develop the above-mentioned index. The AHP methodology involves ranking various criteria/dimensions using pairwise-comparisons. Based on the inputs received from you, I will be ranking the dimensions that are critical in enhancing the customer experience in an omnichannel framework in the Technical Consumer Goods Sector (consumer electronics and home appliances). I assure you of the confidentiality of the responses given by you and the usage of the same to be confined to academic research work only.

Following are the instructions to be followed while rating the criteria:

a) There are two matrices i.e. the upper triangular matrix and the lower triangular matrix.
b) You are requested to enter your inputs only in the upper triangular matrix.
c) While entering your inputs, a comparison needs to be made between the items in the rows and columns.
d) The items have to be rated on a scale of 1-9 where 1 = equally important, 3 = moderately more important, 5 = strongly more important, 7 = very strongly more important, 9 = absolutely important; 2,4,6,8 are intermediate values which can be also used.
e) If you consider the item in the column to be more important than the item in the row, the rating can be any number between 1-9 based on the level of importance you attach. However, if you consider the item in the row to be more important than the item in the column, kindly enter the input as a reciprocal i.e. 1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8 or 1/9 based on the level of importance you attach.
f) For example, while entering your input in the first cell, if you consider “integrated product descriptions” (column 3) to be “very strongly more important” than “integrated interactions” (row 2), your input could be either 7 or 8. However, while entering your input in the same cell, if you consider “integrated interactions” (row 2) to be “very strongly more important” than “integrated product descriptions” (column 3), your input could be either 1/7 or 1/8.

Items	Integrated interactions	Integrated product descriptions	Simultaneous product launches	Product variant availability	Personalised recommendations	Personalised discounts/privileges	Customised online browsing pages	Client-specific rewards	Consistent trademarks/brand	Consistent information	Consistent product quality	Consistent service	Online/Offline order	Channel choice for service	Flexible payment/pick up options	After sales service across channels	Tasks through preferred channels	Inventory status across channels	Product information across channels	Offline inventory via online channels	Synchronised content across channels	Connected member accounts	Interconnected interactions
Integrated interactions	1																						
Integrated product descriptions	X	1																					
Simultaneous product launches	X	X	1																				
Product variant availability	X	X	X	1																			
Personalised recommendations	X	X	X	X	1																		
Personalised discounts/privileges	X	X	X	X	X	1																	
Customised online browsing pages	X	X	X	X	X	X	1																
Client-specific rewards	X	X	X	X	X	X	X	1															
Consistent trademarks/brand names/slogans	X	X	X	X	X	X	X	X	1														
Consistent information	X	X	X	X	X	X	X	X	X	1													
Consistent product quality	X	X	X	X	X	X	X	X	X	X	1												
Consistent service	X	X	X	X	X	X	X	X	X	X	X	1											
Online/Offline order	X	X	X	X	X	X	X	X	X	X	X	X	1										
Channel choice for service	X	X	X	X	X	X	X	X	X	X	X	X	X	1									
Flexible payment/pick up options	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1								
After sales service across channels	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1							
Tasks through preferred channels	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1						
Inventory status across channels	X	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1					
Product information across channels	X	X	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1				
Offline inventory via online channels	X	X	X	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1			
Synchronised content across channels	X	X	X	X	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1		
Connected member accounts	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1	
Interconnected interactions	X	X	X	X	X	X	x	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1

ANNEXURE III: INPUTS FOR AHP ANALYSIS

Table 1: Pairwise Comparison Matrix – Aggregate Inputs

Items	Integrated interactions	Integrated product descriptions	Simultaneous product launches	Product variant availability	Personalised recommendations	Personalised discounts/privileges	Customised online browsing pages	Client-specific rewards	Consistent trademarks/brand names/slogans	Consistent information	Consistent product quality	Consistent service	Online/Offline order	Channel choice for service	Flexible payment/pick up options	After sales service across channels	Tasks through preferred channels	Inventory status across channels	Product information across channels	Offline inventory via online channels	Synchronised content across channels	Connected member accounts	Interconnected interactions
Integrated interactions	1.00	0.17	2.00	0.50	0.17	0.20	0.17	0.20	2.00	0.13	0.13	0.11	0.20	0.13	0.11	0.11	2.00	0.14	0.13	0.20	0.13	0.11	0.11
Integrated product descriptions	6.00	1.00	3.00	0.50	3.00	0.17	2.00	0.17	3.00	0.14	0.11	0.11	0.14	0.20	0.14	0.11	1.00	0.17	0.14	0.33	0.14	0.13	0.11
Simultaneous product launches	0.50	0.33	1.00	0.14	0.50	0.14	2.00	0.14	2.00	0.17	0.11	0.11	0.17	0.20	0.13	0.11	0.50	0.17	0.13	0.14	0.17	0.14	0.14
Product variant availability	2.00	2.00	7.00	1.00	3.00	0.50	3.00	0.50	3.00	0.50	0.17	0.13	0.17	0.20	0.33	0.11	2.00	0.50	1.00	0.25	0.25	0.20	0.13
Personalised recommendations	6.00	0.33	2.00	0.33	1.00	0.17	1.00	0.33	2.00	0.17	0.11	0.11	0.25	0.25	0.13	0.11	0.17	0.20	0.17	0.17	0.14	0.14	0.11
Personalised discounts/privileges	5.00	6.00	7.00	2.00	6.00	1.00	2.00	1.00	3.00	0.50	0.17	0.17	0.17	2.00	2.00	0.17	2.00	3.00	1.00	2.00	0.50	1.00	0.33
Customised online browsing pages	6.00	0.50	0.50	0.33	1.00	0.50	1.00	0.13	0.33	0.14	0.11	0.11	0.14	0.25	0.14	0.11	0.14	0.17	0.17	0.20	0.14	0.11	0.11

Client-specific rewards	5.00	6.00	7.00	2.00	3.00	1.00	8.00	1.00	4.00	0.25	0.14	0.14	2.00	1.00	2.00	0.14	3.00	3.00	0.14	1.00	1.00	0.33	0.50
Consistent trademarks/brand names/slogans	0.50	0.33	0.50	0.33	0.50	0.33	3.00	0.25	1.00	0.11	0.11	0.11	0.20	0.33	0.33	0.13	0.20	0.25	0.13	0.17	0.11	0.14	0.14
Consistent information	8.00	7.00	6.00	2.00	6.00	2.00	7.00	4.00	9.00	1.00	0.33	0.20	1.00	2.00	2.00	0.50	3.00	2.00	1.00	2.00	1.00	1.00	1.00
Consistent product quality	8.00	9.00	9.00	6.00	9.00	6.00	9.00	7.00	9.00	3.00	1.00	1.00	2.00	3.00	3.00	1.00	2.00	3.00	3.00	2.00	1.00	1.00	1.00
Consistent service	9.00	9.00	9.00	8.00	9.00	6.00	9.00	7.00	9.00	5.00	1.00	1.00	2.00	2.00	3.00	1.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00
Online/Offline order	5.00	7.00	6.00	6.00	4.00	6.00	7.00	0.50	5.00	1.00	0.50	0.50	1.00	2.00	1.00	0.33	3.00	2.00	1.00	2.00	0.33	0.50	0.50
Channel choice for service	8.00	5.00	5.00	5.00	4.00	0.50	4.00	1.00	3.00	0.50	0.33	0.50	0.50	1.00	0.17	0.13	1.00	0.33	0.14	0.25	0.14	0.14	0.14
Flexible payment/pick up options	9.00	7.00	8.00	3.00	8.00	0.50	7.00	0.50	3.00	0.50	0.33	0.33	1.00	6.00	1.00	0.20	2.00	1.00	0.17	2.00	0.20	0.17	0.14
After sales service across channels	9.00	9.00	9.00	9.00	9.00	6.00	7.00	4.00	8.00	2.00	1.00	1.00	3.00	8.00	5.00	1.00	3.00	2.00	2.00	2.00	2.00	1.00	3.00
Tasks through preferred channels	0.50	1.00	2.00	0.50	6.00	0.50	4.00	0.33	5.00	0.33	0.50	0.33	0.33	1.00	0.50	0.33	1.00	0.25	0.14	0.20	0.17	0.20	0.17
Inventory status across channels	7.00	6.00	6.00	2.00	5.00	0.33	5.00	0.33	4.00	0.50	0.33	0.33	0.50	3.00	1.00	0.50	3.00	1.00	2.00	1.00	0.33	0.25	0.17
Product information across channels	8.00	7.00	8.00	1.00	6.00	1.00	3.00	7.00	8.00	1.00	0.33	0.33	1.00	4.00	6.00	0.50	5.00	0.50	1.00	1.00	1.00	0.50	0.33
Offline inventory via online channels	5.00	3.00	7.00	4.00	6.00	0.50	5.00	1.00	6.00	0.50	0.50	0.50	0.50	3.00	0.50	0.50	3.00	1.00	1.00	1.00	0.33	0.50	0.17
Synchronised content across channels	8.00	7.00	6.00	4.00	7.00	2.00	4.00	1.00	7.00	1.00	1.00	0.50	3.00	3.00	5.00	0.50	5.88	3.00	1.00	3.00	1.00	0.33	0.33
Connected member accounts	9.00	8.00	7.00	5.00	7.00	1.00	6.00	3.00	6.00	1.00	1.00	1.00	2.00	5.00	5.00	1.00	5.00	4.00	2.00	2.00	3.00	1.00	1.00
Interconnected interactions	9.09	9.00	7.00	8.00	9.09	3.00	7.00	2.00	4.00	1.00	1.00	1.00	2.00	4.00	6.00	0.33	4.00	3.00	3.00	4.00	3.00	1.00	1.00

Source: Primary Data

Table 2: Normalised Matrix

Items	Integrated interactions	Integrated product descriptions	Simultaneous product launches	Product variant availability	Personalised recommendations	Personalised discounts/privileges	Customised online browsing pages	Client-specific rewards	Consistent trademarks/brand names/slogans	Consistent information	Consistent product quality	Consistent service	Online/Offline order	Channel choice for service	Flexible payment/pick up options	After sales service across channels	Tasks through preferred channels	Inventory status across channels	Product information across channels	Offline inventory via online channels	Synchronised content across channels	Connected member accounts	Interconnected interactions
Integrated interactions	0.007	0.002	0.016	0.007	0.001	0.005	0.002	0.005	0.019	0.006	0.012	0.012	0.009	0.002	0.002	0.012	0.036	0.004	0.005	0.007	0.007	0.010	0.009
Integrated product descriptions	0.045	0.009	0.024	0.007	0.026	0.004	0.019	0.004	0.028	0.007	0.011	0.012	0.006	0.004	0.003	0.012	0.018	0.005	0.006	0.012	0.008	0.011	0.010
Simultaneous product launches	0.004	0.003	0.008	0.002	0.004	0.004	0.019	0.003	0.019	0.008	0.011	0.012	0.007	0.004	0.003	0.012	0.009	0.005	0.005	0.005	0.009	0.013	0.012
Product variant availability	0.015	0.018	0.056	0.014	0.026	0.013	0.028	0.012	0.028	0.024	0.016	0.013	0.007	0.004	0.007	0.012	0.036	0.015	0.043	0.009	0.014	0.018	0.011
Personalised recommendations	0.045	0.003	0.016	0.005	0.009	0.004	0.009	0.008	0.019	0.008	0.011	0.01sn2	0.011	0.005	0.003	0.012	0.003	0.006	0.007	0.006	0.008	0.013	0.009
Personalised discounts/privileges	0.037	0.054	0.056	0.028	0.053	0.025	0.019	0.024	0.028	0.024	0.016	0.017	0.007	0.039	0.045	0.019	0.036	0.089	0.043	0.069	0.028	0.092	0.029
Customised online browsing pages	0.045	0.005	0.004	0.005	0.009	0.013	0.009	0.003	0.003	0.007	0.011	0.012	0.006	0.005	0.003	0.012	0.003	0.005	0.007	0.007	0.008	0.010	0.010
Client-specific rewards	0.037	0.054	0.056	0.028	0.026	0.025	0.075	0.024	0.038	0.012	0.014	0.015	0.086	0.019	0.045	0.016	0.055	0.089	0.006	0.035	0.055	0.031	0.043
Consistent trademarks/brand	0.004	0.003	0.004	0.005	0.004	0.008	0.028	0.006	0.009	0.005	0.011	0.012	0.009	0.006	0.007	0.014	0.004	0.007	0.005	0.006	0.006	0.013	0.012

Consistent information	0.059	0.063	0.048	0.028	0.053	0.051	0.066	0.094	0.085	0.049	0.032	0.021	0.043	0.039	0.045	0.056	0.055	0.059	0.043	0.069	0.055	0.092	0.086
Consistent product quality	0.059	0.081	0.072	0.085	0.079	0.153	0.085	0.165	0.085	0.147	0.097	0.104	0.086	0.058	0.067	0.112	0.036	0.089	0.128	0.069	0.055	0.092	0.086
Consistent service	0.067	0.081	0.072	0.113	0.079	0.153	0.085	0.165	0.085	0.245	0.097	0.104	0.086	0.039	0.067	0.112	0.055	0.089	0.128	0.069	0.111	0.092	0.086
Online/Offline order	0.037	0.063	0.048	0.085	0.035	0.153	0.066	0.012	0.047	0.049	0.048	0.052	0.043	0.039	0.022	0.037	0.055	0.059	0.043	0.069	0.018	0.046	0.043
Channel choice for service	0.059	0.045	0.040	0.071	0.035	0.013	0.038	0.024	0.028	0.024	0.032	0.052	0.021	0.019	0.004	0.014	0.018	0.010	0.006	0.009	0.008	0.013	0.012
Flexible payment/pick up options	0.067	0.063	0.064	0.042	0.071	0.013	0.066	0.012	0.028	0.024	0.032	0.035	0.043	0.116	0.022	0.022	0.036	0.030	0.007	0.069	0.011	0.015	0.012
After sales service across channels	0.067	0.081	0.072	0.127	0.079	0.153	0.066	0.094	0.075	0.098	0.097	0.104	0.129	0.155	0.112	0.112	0.055	0.059	0.085	0.069	0.111	0.092	0.258
Tasks through preferred channels	0.004	0.009	0.016	0.007	0.053	0.013	0.038	0.008	0.047	0.016	0.048	0.035	0.014	0.019	0.011	0.037	0.018	0.007	0.006	0.007	0.009	0.018	0.014
Inventory status across channels	0.052	0.054	0.048	0.028	0.044	0.008	0.047	0.008	0.038	0.024	0.032	0.035	0.021	0.058	0.022	0.056	0.055	0.030	0.085	0.035	0.018	0.023	0.014
Product information across channels	0.059	0.063	0.064	0.014	0.053	0.025	0.028	0.165	0.075	0.049	0.032	0.035	0.043	0.078	0.135	0.056	0.091	0.015	0.043	0.035	0.055	0.046	0.029
Offline inventory via online channels	0.037	0.027	0.056	0.057	0.053	0.013	0.047	0.024	0.056	0.024	0.048	0.052	0.021	0.058	0.011	0.056	0.055	0.030	0.043	0.035	0.018	0.046	0.014
Synchronised content across channels	0.059	0.063	0.048	0.057	0.062	0.051	0.038	0.024	0.066	0.049	0.097	0.052	0.129	0.058	0.112	0.056	0.107	0.089	0.043	0.104	0.055	0.031	0.029
Connected member accounts	0.067	0.072	0.056	0.071	0.062	0.025	0.057	0.071	0.056	0.049	0.097	0.104	0.086	0.097	0.112	0.112	0.091	0.119	0.085	0.069	0.166	0.092	0.086
Interconnected interactions	0.068	0.081	0.056	0.113	0.080	0.076	0.066	0.047	0.038	0.049	0.097	0.104	0.086	0.078	0.135	0.037	0.073	0.089	0.128	0.138	0.166	0.092	0.086

Source: Primary Data

ANNEXURE IV: RESEARCH FINDINGS PUBLISHED AND PRESENTED

Papers Published

- Paper published in the South Asian Journal of Management Research (UGC-CARE list Group I)

  Maria Sancha Ema De Assuncao Pereira, & Juao C. Costa. (2025). What Drives Omnichannel Customer Experience? An Empirical Study of the Key Antecedents in the Technical consumer goods Sector. *South Asian Journal of Management Research, 15*(2), 207-221. https://www.siberindia.edu.in/journals/SAJMR/April-2025/Paper-16.pdf

Papers Presented

- Paper titled *'Building Blocks of Omni-Channel Experience – A Review of Key Dimensions and Evidence of Adoption in India'* presented and won the best paper award in the Academicians' category at the Two-Day National Conference on 'Challenges in Retailing & Its Coping Strategies' organised by the Government College of Arts, Science and Commerce, Khandola Goa, held on the 23rd and 24th of January 2023.
- Paper titled *'Customer Experience in Omni-Channel Retailing: A Bibliometric Analysis'* presented at the ICSSR-Sponsored Two-Day International Conference on 'Emerging Trends in Business & Entrepreneurship in Digital World' organised by the Department of Business Management, Sri Padmavati Mahila Visvavidyalayam (Women's University), Tirupati Andhra Pradesh, held on the 9th and 10th of March 2024.