

“Virtual Vogue: Unravelling the Impact of Augmented Reality on Consumer Motivations in Online Fashion”

by

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Abstract

Augmented Reality (AR) technology is recognized for its capacity to merge the real and virtual worlds by incorporating digital aspects into physical surroundings. If fashion marketers aim to enhance their online shopping experiences for customers, this technology has the potential to influence consumer behaviours, their motives, and the way they make purchasing decisions.

Existent literature showcases how consumer behaviours have shifted from brick and mortar stores to online fashion shopping. However, the entrance of AR into the industry has limited research on how it shapes motivations towards purchase intentions; specifically, the distinct decision making process stages: search, evaluation and purchase. AR technology is one of the most profound technologies fashion retailers have kept their eyes on. Through its interactivity, visualization and immersion, AR has the ability to thrive in online shopping and how consumers purchase products in the future. This research aims to go beyond technical influences on the industry and investigate consumer response to the technology, specifically what drives them to purchase with AR-integrated platforms.

This thesis employed qualitative methodologies to provide pertinent insights into the motives for acquiring online fashion apparel. A group of 13 participants were given the opportunity to interact with AR before their semi-structured interviews, to ensure their answers were based on real experiences. To analyse the data, the study took on the six stage process from Braum and Clarkes (2005) and utilized NVivo as the primary tool to report the findings of this study.

The outcomes of this study highlighted six valuable themes in understanding consumer motivations in their AR online shopping journey. It brought insights into current online shopping behaviours and challenges. Moreover, the significance of technical influences such as personalization, visualization and usability was emphasized. Most importantly the study discusses social influences on consumer behaviour and how it affects purchasing decisions. Overall, this study contributes to the inadequate body of literature around AR and online fashion shopping behaviours. Specifically, the social aspects as well as extrinsic and intrinsic motivators in the main three stages of the decision making process. The identification of these themes and how they are integrated aided in generating a conceptual framework to illustrate what drives consumers to purchase fashion goods online. This research provides theoretical and practical implications for policymakers, consumer researchers, developers and fashion retailers, leading to an innovative shopping experience.

Contents:

Table of Contents

ABSTRACT	2
LIST OF TABLES	6
ATTESTATION OF AUTHORSHIP	8
ACKNOWLEDGMENTS	9
ETHICS APPROVAL	10
CHAPTER 1: INTRODUCTION	11
1.1 INTRODUCTION	11
1.2 BACKGROUND	11
1.3 STATEMENT OF PROBLEM	12
1.4 RESEARCH AIM AND QUESTION	14
1.5 RESEARCH DESIGN	14
1.6 SIGNIFICANCE OF THE STUDY	15
1.7 ORGANIZATION OF THESIS	17
CHAPTER 2: LITERATURE REVIEW	18
2.1 INTRODUCTION	18
2.2 TECHNOLOGY DEVELOPMENT OF AUGMENTED REALITY (AR)	18
2.2.1 <i>Defining AR</i>	18
2.2.2 <i>Product Development and Design</i>	19
2.2.3 <i>Limitations of AR Technology</i>	20
2.3 CHANGES IN CONSUMER BEHAVIOR DUE TO AR	20
2.3.1 <i>Online Shopping and Consumers</i>	20
2.3.2 <i>AR Adoption in Online Fashion Shopping</i>	22
2.4 AR'S IMPACT ON THE CONSUMER DECISION-MAKING PROCESS	24
2.4.1 <i>Pre-Purchase Stage</i>	24
2.4.2 <i>Purchase Stage</i>	25
2.4.3 <i>Post – Purchase Stage</i>	27
2.5 LITERATURE CONTRIBUTION	27
2.7 SUMMARY	28
CHAPTER 3: METHODOLOGY	30
3.1 INTRODUCTION	30
3.2 RELATIVIST ONTOLOGY	31
3.3 SUBJECTIVE EPISTEMOLOGY	31
3.4 INTERPRETIVIST PARADIGM	32
3.5 THE SAMPLING PROCESS	33
TABLE OF THE PARTICIPANTS	34
3.6 DATA COLLECTION PROCEDURE	35
3.6.1 <i>The Participants' Experience of Using AR</i>	35
3.6.2 <i>Semi-Structured Interviews</i>	36
3.7 DATA ANALYSIS	39
3.8 THE RESEARCHER POSITION	40
3.9 ETHICAL CONSIDERATIONS	41
3.10 SUMMARY	42
CHAPTER 4: FINDINGS	43

4.1 INTRODUCTION:.....	43
4.2 ONLINE SHOPPING BEHAVIOUR AND CHALLENGES	44
4.2.1 <i>Changes in Online Shopping Behaviour due to COVID-19</i>	44
4.2.2 <i>Availability and Convenience of Online Stores:</i>	44
4.2.3 <i>Limited Local Fashion Stores:</i>	45
4.2.4 <i>Avoidance of In-Person Interactions</i>	46
4.3 IMMERSING WITH AUGMENTED REALITY.....	47
4.3.1 <i>Visualization and Personalization</i>	47
4.3.2 <i>Envisioning “The Look”</i>	49
4.3.3 <i>Style and Aesthetics</i>	52
4.4 REIMAGINING SOCIAL IDEALS WITH AR.....	54
4.4.1 <i>Body Positivity</i>	54
4.4.2 <i>Diversity and Inclusivity</i>	55
4.4.3 <i>Individual Empowerment</i>	57
4.4.4 <i>Privacy and Data Security</i>	57
4.5 BALANCING DUAL REALITIES.....	58
4.5.1 <i>Combination of Both the Real and Virtual World</i>	58
4.5.2 <i>Engagement and Interaction</i>	59
4.5.3 <i>Gamification</i>	60
4.5.4 <i>Innovativeness and Novelty</i>	60
4.6 AR USER-FRIENDLINESS	62
4.6.1 <i>AR Usability</i>	62
4.6.2 <i>Graphical Issues</i>	62
4.6.3 <i>Slowness and Lag</i>	63
4.6.4 <i>Generational Difference of Use</i>	65
4.7 SPECIAL INCENTIVES.....	66
4.7.1 <i>Price Influence</i>	66
4.7.2 <i>Sales, Discounts and Promotions</i>	67
4.7.3 <i>Loyalty Programs</i>	69
4.8 PURCHASING CONFIDENCE.....	70
4.9 SUMMARY	71
CHAPTER 5: DISCUSSION AND CONCLUSION	73
5.1 INTRODUCTION	73
5.2 CONCEPTUAL FRAMEWORK.....	74
5.3 THEORETICAL IMPLICATIONS.....	77
5.3.1 <i>The Complex Dynamics of Shifting Consumer Behaviour in Online Fashion Shopping</i>	77
5.3.2 <i>AR’s Evolutionary Impact on Online Fashion Shopping</i>	78
5.3.3 <i>AR’s Societal Reshaping in Online Fashion Shopping</i>	80
5.3.4 <i>Enhancing User Experience in Online Fashion Shopping</i>	81
5.4 PRACTICAL IMPLICATIONS	82
5.4.1 <i>AR Interface Design and Performance</i>	82
5.4.2 <i>Incentive Strategies</i>	83
5.4.3 <i>AR Visualization Enhancing Consumer Confidence</i>	84
5.4.4 <i>Inclusivity in Fashion</i>	85
5.5 POLICY IMPLICATIONS	86
5.5.1 <i>Privacy Regulations and Standards in Online Fashion Shopping</i>	86
5.5.2 <i>Consumer Protection of Inaccurate Representations</i>	87
5.5.3 <i>Digital Literacy</i>	87
5.6 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH.....	88
5.7 CONCLUSION.....	90
REFERENCES.....	91
APPENDICES.....	110
APPENDIX A: ETHICS APPROVAL	110
APPENDIX B: INFORMATION SHEET, CONSENT FORM AND PARTICIPANT INVITATION.....	111

(i) Information Sheet.....	111
(ii) Consent Form.....	113
(iii) Participant Invitation.....	114
APPENDIX C: QUALITATIVE CODING PROCESS.....	115

List of Tables

TABLE 1 34
TABLE 2 38

List of Figures

FIGURE 1 74

Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

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Ethics Approval

Ethics approval from AUT University Ethics Committee (AUTEC) was granted on 25th August 2023, for a period of three years until 25th August 2027. The ethics application number is 23/239 (see Appendix A for Ethics Approval Letter).

Chapter 1: Introduction

1.1 Introduction

This chapter seeks to investigate the influence of AR technology on consumer motivations in the decision-making process for online fashion shopping. Firstly, it provides a comprehensive review of existing literature pertaining to the integration of AR in online fashion retail and its impact on consumer behaviour. Subsequently, the research problem is delineated, highlighting the theoretical gaps and underscoring the importance of understanding the role of AR in shaping consumer motivations. The research aim and questions are then elucidated. Furthermore, the chapter discusses the potential contributions of the study to the field of online fashion retail and consumer behaviour research. Finally, the organization of the dissertation is outlined to provide a roadmap for the subsequent chapters.

1.2 Background

The fashion retail scene has changed dramatically in recent years, fuelled by the introduction of revolutionary technologies (Donmezer et al., 2023). Augmented reality, defined by its capacity to superimpose virtual features on the physical environment, has emerged as a powerful asset in enhancing the online purchasing experience (Flavián et al., 2019). This innovative technology has not only changed the way consumers engage with fashion items, but it has also revolutionized their overall shopping experience. As purchasing habits evolve in reaction to technology improvements, AR has emerged as an increasingly popular approach among fashion companies seeking to increase consumer involvement and satisfaction (McLean & Wilson, 2019). Consumer behaviour has drastically changed as a result of this development, significantly changing the dynamics of online buying.

Consumer behaviour in the online fashion space is a complex interaction of many aspects, each of which influences the decision-making process (Punj, 2012). Furthermore, social influence has emerged as a strong factor in moulding shopping decisions, with consumers depending on recommendations from peers, influencers, and online groups to guide their purchases (Kim & Srivastava, 2007). Traditional online retailers have long recognized the significance of these characteristics and have used a variety of tactics to appeal to consumer motivations. Offering incentives such as free delivery and hassle-free returns meets the desire for convenience by reducing obstacles to purchase and creating customer confidence (Ma, 2017). Moreover, implementing user-friendly interfaces improves the shopping experience by simplifying the exploration of product

catalogues and completing transactions (Chang & Chen, 2009). Online fashion businesses have also leveraged social media influencers for marketing objectives, tapping into the power of social influence, as consumers are more inclined to believe suggestions from individuals they like and follow (Shin & Lee, 2021).

The emergence of AR marks a paradigm change in the online buying experience, adding a new layer that has the potential to transform consumer motivations. AR allows users to see visuals in a more immersive and realistic manner, intertwining the online and physical buying experiences (Scholz & Smith, 2016). By digitally letting consumers try on garments and accessories, AR tackles the long-standing issue of fit and style ambiguity, connected with online fashion buying (Barta et al., 2023). The improved visualization not only enhances consumer confidence, but it also decreases the possibility of returns, simplifying the purchasing experience and increasing overall satisfaction (Sun et al., 2022).

AR adds a feeling of novelty and excitement converting it from a transactional buying experience, into an interactive and engaging journey (Hopp & Gangadharbatla, 2016). Consumers can express their personality and creativity by trying out multiple styles and looks which enables a stronger relationship with the items and the associated brand (Prakash et al., 2020). Furthermore, social sharing in AR allows consumers to solicit input from peers, increasing the effect of social networks on purchase decisions (Shaw et al., 2020). The emergence of AR alters the online fashion shopping experience by combining traditional consumer motives with immersive visualization, sensory engagement, and social connection. As a result, the study intends to deeply explore the new shifts in consumer behaviour brought by AR in the online fashion industry.

1.3 Statement of Problem

Given the complexities of understanding consumer behaviours, it is important to investigate how AR technology might affect customer motivations in the decision-making process for online fashion buying. Consumer motivations are subjective and constantly shifting, making it challenging for fashion stores to satisfy consumers (Xiao et al., 2022). Understanding the relationship between AR and these intrinsic and extrinsic motives, is essential in establishing effective marketing strategies and enhancing the online purchasing experience for their consumers.

Traditionally, research on AR technology has centred on technological breakthroughs, such as its ability to overlay virtual objects onto real-life surroundings or to improve visualization and interaction (Crofton et al., 2019; Lu & Smith, 2008; Singh et al., 2022). While these technological characteristics are unquestionably significant in understanding AR's possibilities, they fail to address the underlying

psychological and social factors that drive customer behaviour. Rather than exclusively focusing on the immersive and interactive components of AR, it is necessary to investigate how these technologies affect consumers' social connections, personal identities, and deeper emotional responses during the purchasing process. This shift in viewpoint can lead to a more nuanced understanding of how AR technology impacts consumer behaviour, allowing for the creation of more successful marketing tactics and user-centric approaches for online platforms.

Consumer motives shape purchase decisions (Mazurek-Łopacińska et al., 2022), which is vital to the ever-changing field of online fashion shopping. Motivations may be divided into two types: extrinsic and intrinsic (Ryan & Deci, 2000). Extrinsic motivators are external influences or rewards that consumers seek to influence their purchasing decisions (Wang et al., 2019). These might include discounts, promotions, or social stimulus such as recommendations from friends or influencers. In contrast, intrinsic motivators are internal elements that push individuals from within, delivering a sense of joy, contentment, or better well-being (Shang et al., 2005). These intrinsic motives could stem from a drive for self-expression, the search for novelty, or the enjoyment of the shopping experience itself (Robson et al., 2019).

The online purchasing experience, by definition, lacks the tactile and sensory components of traditional in-person shopping (González-Benito et al., 2015). Consumers are unable to physically touch, feel, or try on apparel, influencing their purchasing decisions. The intangibility makes it difficult for online fashion stores to provide the sensory-rich experience that traditional brick-and-mortar stores provide (Zhang et al., 2023). In response to this challenge, several fashion retailers have resorted to AR to bridge the gap between online and in-store buying experiences. By incorporating AR capabilities into their online platforms, retailers can provide consumers with an option to virtually try on apparel items and see how they appear in real-world surroundings (Billewar et al., 2021).

However, it is unknown if AR technology effectively duplicates the in-person buying experience (Poushneh, 2018). It is critical to investigate AR's ability to replicate the sensory and tactile experience of in-person shopping and overall, its effect on the fashion industry. While AR technology has enormous potential to transform the online experience, it is still in its early stages and may not yet reach the quality standards that consumers demand from their shopping expectations (Poushneh & Vasquez, 2017).

Potentially, there are some risks online fashion stores should take into consideration when integrating AR onto their platform. Without a complete grasp of how consumers react to AR and whether it changes their motives in the decision-making process, fashion retailers risk alienating or dissatisfying their customer base. Furthermore, the insufficient studies on consumer responses to AR adds to the uncertainty of its usability. Without empirical information to guide decision-making, stores are forced

to hypothesize about the possible influence of AR on consumer behaviour and may be hesitant to invest heavily to adopt AR due to the perceived risks.

As a result, it is imperative to explore this topic further in order to understand consumer motivation in the online fashion space and to uncover any elements that may dissuade them from completing purchases. Researchers and businesses may make more informed decisions on AR implementation by researching customer perceptions and responses. This study will provide valuable insights of the relationship between AR technology and customer motives, to inspire the creation of marketing initiatives and improve the online fashion buying experience.

1.4 Research Aim and Question

The primary objective of this research is to comprehensively examine the influence of AR technology on consumer motivations across distinct phases of the decision-making process within online retail platforms. Specifically, the study seeks to elucidate how AR impacts both extrinsic and intrinsic motivations as consumers navigate through critical stages of the online purchasing journey, including product search, evaluation, and final purchase decisions.

Research Question: How does augmented reality technology influence consumer's motivations into purchasing online fashion products in the consumer decision-making process?

1. SRQ1: What are the consumer motivations (extrinsic and intrinsic) when searching for online fashion products using AR?
2. SRQ2: What are the consumer motivations (extrinsic and intrinsic) when evaluating online fashion products using AR?
3. SRQ3: What are the consumer motivations (extrinsic and intrinsic) when purchasing online fashion products using AR?

These research questions serve as the cornerstone for the investigation into the multifaceted ways in which AR technology shapes consumer motivations within the online fashion retail landscape. By exploring each phase of the decision-making process, the study aims to provide a nuanced understanding of the mechanisms through which AR enhances or alters consumer perceptions, preferences, and behaviours.

1.5 Research design

To comprehensively address the research question regarding consumer motivations in the decision-making process, the study adopts qualitative methods. Recognizing that these motivations are subjective and multifaceted (Levers, 2013); the research aims to uncover perceptions into what drives

consumers to make purchases in the online fashion space, an interpretivist paradigm is embraced, allowing for a deep exploration of individual perspectives and experiences (Thanh & Thanh, 2015).

The study focuses on interviewing 13 individuals aged between 18 and 30 years old, all of whom possess experience with online fashion shopping and express interest in AR technology. This demographic is chosen for its relevance to the target market of online fashion retailers and their familiarity with technological advancements (Dabija & Lung, 2019).

Qualitative thematic analysis, guided by Braun and Clarke's (2006) outlines six-stages, which serves as the process for exploring and understanding consumer motivations in online fashion shopping. This approach enables researchers to systematically analyse the collected data and extract working insights.

Finally, the analysed data is synthesized to present the findings, offering the underlying drivers of consumer behaviour in the online fashion shopping context, such as social ideals, immersion, dual realities, special incentives, purchasing confidence and user-friendliness; contributing to a deeper understanding of consumer motivations and informing strategic decisions for online fashion retailers.

1.6 Significance of the Study

This thesis addresses a critical gap in the existing literature by examining the intricate relationship between AR technology and consumer behaviour, specifically within the realm of online fashion shopping. While previous research (Watson et al. 2018) has explored the impact of AR and consumer behaviour separately, this study seeks to understand how these factors interact and influence each other when consumers consider fashion purchases online. The findings provide actionable strategies that can be directly applied by marketers, fashion retailers, policymakers, and researchers alike.

The current research valuably contributes to the body of literature concerning the effects of globalisation, convenience and face-to-face interactions (Alden et al., 2006; Goudge et al., 2017; Nanda et al., 2021). In regions such as New Zealand, where fashion stores are scarce, consumers are compelled to explore an extensive options of products and brands through online platforms. Consumers' inclination towards online shopping, owing to its convenience and accessibility, has also been impacted by the financial and physical constraints imposed by COVID-19. Additionally, the reluctance of consumers to engage in in-person sales interactions led to an increased propensity to consider purchases through online platforms. AR technology could significantly transform the way in which consumers purchase fashion items as a result of the widespread adoption of online platforms.

Introducing AR in online platforms tackles the key issue with online shopping experiences where consumers are unable to get a try or feel for clothing; creating uncertainty and disconnect with the item (Kim & Forsythe, 2009; Jones, 2021). The present study showcases practical and theoretical

implications of AR's ability to visualize apparel which enables greater comprehension of product information by the consumer. This enhances the interactivity and engagement with the AR online shopping platform. The paper further expands on the notion of AR personalization in online fashion shopping (Hilken et al., 2017; Liangchao, 2022; Voicu et al., 2023). AR elicits a range of emotions due to its novelty and innovative nature. The use of technology serves as a catalyst for the implementation of gamification (Poncin et al., 2017), where consumers see their shopping encounter as nostalgic and pleasurable through their engagement with the application. The ability to customize online shopping experiences motivates consumers to experiment with and interact with a wider range of fashion items, enhancing their confidence in making purchasing choices.

AR in online fashion shopping has profound practical and theoretical implications for reimagining social norms, particularly in promoting body positivity, diversity, and individual empowerment (Park & Ogle, 2021; Huang et al., 2019; Taylor, 2020). By enabling users to create avatars reflecting their diverse body types, sizes, and cultural backgrounds, AR fosters inclusivity and empowers individuals to personalize their own shopping experiences. AR encourages users to embrace their unique bodies and express their style preferences with autonomy. This creates a more relatable and authentic shopping experiences for all users regardless of their individual background.

The study explores the theoretical and practical implications of AR user-friendliness in online fashion; addressing usability issues such as graphical difficulties, slowness, and lag, as well as generational disparities (Xue et al., 2022; Schawrz, 2022). It draws on the importance of creating a seamless process for efficient virtual try-ons through intuitive design and performance optimization, to enhance the user experience and encourage adoption among diverse users. Graphical imperfections and performance issues are identified as challenges that must be addressed to ensure a reliable and enjoyable AR-enhanced shopping experience.

Price incentives play a significant role in driving consumer engagement and conversion rates in AR-enhanced online fashion shopping (Bagga & Bhatt, 2013; Jiang & Rosenbloom, 2005). Consumers are motivated by discounts and promotions, regardless of AR features, demonstrating the enduring appeal of cost-saving opportunities. Practical implications can include retailers and developers leveraging this knowledge by integrating promotional elements within AR applications to enhance user motivation and encourage purchases. Lower prices encourage product experimentation, exploration and risk-taking that lead to purchasing decisions. Additionally, free shipping complements AR features, further incentivizing purchases (Konarzewski & Reiner, 2023; Paas et al., 2018). Retailers should prominently display price incentives within AR platforms to minimize cart abandonment and maximize conversion opportunities, ultimately enhancing user engagement and brand loyalty in the competitive e-commerce landscape.

To address users' concerns about data security and privacy, policy implications such as privacy regulations and standards are crucial in AR-enhanced online fashion shopping. Policymakers should enforce transparent data handling practices, cybersecurity protocols, and accountability mechanisms for data breaches to safeguard user information and build trust in AR platforms (Hilken et al., 2017; Marali et al., 2019; Caldwell, 2012). In addition, policymakers could ensure consumer protection from inaccurate representations in AR applications (Wu & Chien, 2021). This can require disclosures about AR limitations and implementing procedures for addressing consumer complaints. Digital literacy initiatives can further empower users with the necessary skills to navigate AR technologies effectively and make informed decisions about privacy and security (Barnard et al., 2013).

1.7 Organization of Thesis

This research unfolds across several chapters, each serving a distinct purpose in advancing our understanding of the interplay between AR technology and consumer behaviour in the realm of online fashion shopping.

Chapter 1 sets the stage by outlining the research context and articulating the aims and questions that guide our research inquiry. Additionally, it establishes the fundamental aspects of our research design, distinguishing the gap from prior studies. The chapter also discusses the theoretical underpinnings of the research, identifying the unique contributions it offers to the existing body of knowledge. Lastly, it will provide an outline the structure of this thesis.

Chapter 2 explores the existing research on extrinsic and intrinsic motivations. Moreover, the chapter identifies the research gaps need for our investigation and contribute novel insights to the field.

Chapter 3 details the philosophical and methodological approach of our study. It also explains the qualitative methods deployed, which include participant observation of AR technology and semi-structured interviews.

Chapter 4 unfolds the narrative of the research findings. Here, the study presents the themes that emerged from the data analysis of participant experiences, discussing how AR technology influences consumer motivations in the context of online fashion shopping.

Chapter 5 reflects the broader implications of our study. It discusses the theoretical, practical, and policy implications of the study findings, highlighting their significance for the field of consumer research. Furthermore, acknowledging the limitations of the study and outlining avenues for future research.

Chapter 2: Literature Review

2.1 Introduction

Marketers today confront the problem of influencing customer purchasing behaviour in favour of their product or service (Stankevich, 2017). With the digital age rapidly transforming, digitalization has tremendously impacted changing consumer behaviours and how consumers' current needs are satisfied (Sima et al., 2020). Over many years, technology in the fashion industry has accelerated from commercialising sewing machines in the 1760s to creating personalized production, using high-tech resources to design, create and communicate current apparel as we enter industry 4.0 (Nouinou et al., 2023). AR has emerged as one of the rising technologies to be a part of this new era, innovating how businesses interact, make decisions, and analyse customer behaviour through its data monitoring capabilities (Machala et al., 2022). The role of technologies in retail has taken a dramatic leap following the outbreak of the COVID-19 pandemic, where physical stores were forced to move rapidly towards technology-based solutions (Shankar et al., 2021). Consequently, this research focused on how digitalization, specifically AR technology, may affect the online fashion industry. Further, it explored changes in consumer behaviour and how consumers may be motivated to purchase apparel when interacting with this modern technology.

The chapter explored the definition of AR, how it has been implemented in existing services, and its limitations in the first section of the literature review. Subsequently, it discussed of the development of online fashion shopping and how it arose due to COVID-19. The literature review covered core concepts on the consumer decision-making process and consumer motives, followed by the gap in the literature and a summary outlining the entire review to better inform this study.

2.2 Technology Development of Augmented Reality (AR)

2.2.1 Defining AR

Over several years, there have been numerous definitions of 'Augmented Reality'. In 1994, 'Augmented Reality' was divided into broad and restricted approaches. The broad approach was termed "improving natural input to the operator." However, the restricted approach defined it as "a variant of virtual reality with a clear perspective of the real world" (Milgram et al., 1995). Azuma (1997), on the other hand, opted to define AR based on the following criteria: (1) mix of real and

virtual, (2) interactive in real-time, and (3) 3D registration of virtual and natural things. However, over the previous decade, researchers have produced definitions for how the technology has evolved, characterising AR as a technology that "blends" the real and virtual world experiences (Sheldon & Klopfer, 2010).

According to some studies, AR is about adding virtual objects to reality or providing missing information to real life (Sharawy et al., 2011). To distinguish between AR and virtual reality (VR), Martin et al. (2011) emphasized how AR partially computer-produces and contains real-world images. Carmigniani et al. (2010) defined AR as "a real-time direct or indirect view of a physical, real-world environment that has been enhanced/augmented by the addition of virtual computer-generated information." However, modern definitions of AR state that it is a technology that superimposes digital objects over a live view of real-life environments, allowing users to visualize how these products might fit into their physical world (Tan et al., 2021). To simplify these definitions, AR provides additional digital information to a person's reality, enhancing their perception of the natural world (Flavián et al., 2019).

2.2.2 Product Development and Design

Smart technologies, such as AR, have a significant role in Industry 4.0, a subset of the fourth industrial revolution, particularly the development of manufacturing industries (Sik Lanyi & Withers, 2020). AR enables or facilitates various operations, including industrial product assembly, maintenance, and practical assistance (Flavián et al., 2019). AR's capacity to mimic, support, and enhance processes before they are carried out via virtual object display, bridges both reality and future product imagination to help envision the ultimate output (Bottani & Vignali, 2019). In other words, AR can produce 2D and 3D models for prototyping physical goods by leveraging the technology's capacity to input spatial information from the actual world in revising the design (Nee et al., 2012). It permits individuals to innovate from multiple perspectives of reality, by encouraging creativity and inspiration to take its course (Mei et al., 2019). The visualization of the technology is a fundamental reason AR should be used in product creation, assisting users to create pre-produced goods and enhancing production efficiency (Shen et al., 2010).

AR technology could also collaborate with product developers using web-based platforms to review, demonstrate, and customize products using head-mounted displays (Mourtzis et al., 2020). In addition, it can primarily change how product specialists may remotely be able to troubleshoot and correct malfunctions in design (Aquino et al., 2023). Empowering product developers to employ AR can improve decision-making processes as they are able to anticipate potential difficulties that may

arise when using the physical output and generate solutions on how to overcome them (Rabah et al., 2018).

2.2.3 Limitations of AR Technology

AR technology is currently in development with potential uses in various sectors, but it has its limits (Saidin et al., 2015). AR faces technical challenges regarding the accuracy of imagery, field of view, and resolution (Van Krevelen & Poelman, 2010). In certain project-based sectors, implementing AR technology in services can be expensive, as it is still an immature technology that has yet to be developed entirely to cater to specialized services, such as construction (Maqsoom et al., 2023). Furthermore, when employing optical see-through glasses, such as head-mounted displays, AR may cause motion sickness, albeit at a lesser risk than VR (Kaufeld et al., 2022). Moreover, if visuals and environments are heavily processed when using smart devices to engage with AR, battery life may be decreased (Ran et al., 2017).

2.3 Changes in Consumer Behavior Due to AR

2.3.1 Online Shopping and Consumers

The nature of shopping is changing as a result of technological advancements. The Web has altered the customer purchasing experience, but so have improvements in smart devices (Kim et al., 2015; Martins et al., 2018). As the accessibility of information and interactivity of the internet have evolved, an increasing number of individuals are leaning towards extensive internet usage, making it easier to market products or render a service online (Shanthi & Desti, 2015). E-commerce developed as the internet's adoption has increased; the ability to transmit money online, as well as social media advertising and analytics, generating a buzz of interest in buying online (Vipin et al., 2021). Customer trust, the simplicity of use, and the utility of a website, motivate consumers' inclination to use an e-commerce website for their buying habits (Venkatesh et al., 2022). Consumers are overloaded by many marketing messages in e-markets due to severe competition, and they attempt to lessen their uncertainty and complexity through mental shortcuts e.g. customer trust (Grabner-Kraeuter, 2002). There is also a considerable association between customer attitudes and obtaining proportional benefits, which creates trust and improves perceived website imagery for online shopping (Akroush & Al-Debei, 2015). Likewise, consumer attitudes toward online shopping are influenced by website quality, eWOM, and the perceived benefits they receive from their shopping experience (Al-Debei et al., 2015).

Moreover, consumer motivations refer to situational and personal variables that drive people's reactions to certain situations. For marketing, the internal state leads individuals to identify and purchase products or services that meet conscious and subconscious demands or needs (Li & Chen, 2019). Extrinsic motivation is a concept that applies whenever an action is performed in order to achieve a distinct outcome e.g. external products, pressures, or rewards (Ryan & Deci, 2000). Extrinsic consumer motives for purchase intentions can be activated in online shopping due to convenience, more extensive product selection, competitive pricing, information accessibility, and cheaper search costs (Shang et al., 2005). Extrinsic consumer goals include financial success (money and luxury), social recognition (fame), and appealing appearance (image) (Truong & McColl, 2011). Furthermore, while discovering and evaluating items, customers with extrinsic incentives may be influenced by promotional activities such as coupons and discount offers to improve purchase intentions (Kim & Drumwright, 2016). The Pokémon Go app, for example, urged consumers to use the app and go to various locations with the incentive of collecting AR virtual Pokémon in exchange for the rewards, points, and free in-game items it offered, entirely driven by extrinsic motives (Wang et al., 2021).

However, intrinsic motivation is defined as completing an activity to fulfil its inherent satisfaction rather than seeking specific results (Ryan & Deci, 2000). Intrinsic incentives that include perceived pleasure, playfulness, and social relatedness satisfy consumers in an online shopping environment. Consumers with intrinsic motivations tend to interact more with social media platforms and need to be socially accepted by others (Kim & Drumwright, 2016). Intrinsic motivation or a sense of self is essential, particularly when using AR in marketing communications, as the modality of AR can alter the individual consumer's sense of control and belonging, highlighting the potential for value co-creation and, as a result, establishing an effective relationship (Huang et al., 2019). According to this research, users are driven by intrinsic motivation during an AR virtual try-on for shoes owing to the personalized real-time experience of playfulness, aesthetics, and interactivity, resulting in consumer happiness and greater involvement (Jiang et al., 2021).

Furthermore, individuals are encouraged to purchase online due to convenience, efficiency, and cost savings (Khalifa & Liu, 2007). Familiarity and awareness of online buying methods may impact habits to the degree that individuals shop online automatically (Chiu et al., 2012). As consumers devote less time to shopping and more to other activities, the need for convenience grows, and as a result, their emphasis has shifted to online shopping (Kumar & Kashyap, 2018). Online shopping is associated with efficiency, as people are more eager to purchase online to avoid lengthy lines, transportation costs, acquire product information, and exert effort by purchasing goods with the press of a button (Duarte et al., 2018). Convenience is also related to the capacity to make pre-order

purchasing selections, with sufficient consumer trust owing to tracking capabilities and rewards on delivery savings, if a loyal customer intends to buy online (Kaushik et al., 2020).

Customers' values impact their decision to purchase online. Consumer values are divided into terminal and instrumental values, which are essential in online consumer purchasing habits (Adeola et al., 2021). According to this study, consumers' contentment and happiness (terminal value) are less critical than rewarding benefits (instrumental value), such as time-saving, discounts, service convenience, and product choice (Kautish & Sharma, 2018). Consumers plan to purchase online luxury retail owing to the scarcity of items in-store or by location and value less communication with store front-line personnel to minimize pressure (Liu et al., 2013). While purchasing online, some customers prioritize site usability, brand reputation, and technical after-sales assistance (Jun & Jaafar, 2011). Shopping from a reputable brand assures consumers of service or product quality and enhances consumer confidence in purchasing products (Brodie et al., 2009). After-sales support might include complaint management, timeliness, return policies, and non-routine services that give value to consumers, potentially leading to overall satisfaction and loyalty to the company (Bauer et al., 2006).

Consumer perception of online ethical practices impacts consumers' decision to purchase online today (Limbu et al., 2011). One of the reasons why consumers are still hesitant to purchase online is the security concerns associated with sharing personal information (Aziz & Wahid, 2018). To elaborate, this may involve privacy issues, uncertainty and exposing personal information or buying habits to unauthorized parties (Bart et al., 2005). Consumers are looking for ethical procedures that do not involve possible exposure to deception or manipulation practices to unwillingly purchase a product (Limbu et al., 2011). Finally, customers are more likely to purchase online if they receive products or services precisely as advertised, with no damage, loss of goods, or fraudulent advertising (Lee & Charles, 2021).

2.3.2 AR Adoption in Online Fashion Shopping

AR has emerged as one of the twenty-first century's most innovative solutions (Nayyar et al., 2018). It has altered how people produce, develop, advertise, and create value from products and associated services. This is by creating an immersive, integrated environment where consumers may connect with items by layering digital information such as text, images, and videos (Scholz & Smith, 2016). Consumers are more likely to have positive perceptions of AR due to its novelty, interactivity, and vividness, resulting in increased satisfaction (McLean & Wilson, 2019).

When the COVID-19 pandemic struck, most fashion industry operations, such as shopping, showrooms, and fashion weeks, were forced to migrate online. In response to this shift, business

models were adapted to use technology such as AR to keep consumers engaged and simulate how they would shop in physical stores (Silvestri, 2020). For example, some apparel fashion brands have utilized AR to recreate outfits using mobile applications such as 'Magic Mirrors', which employ 3D technology to simulate the product onto the consumer using their camera (Kim & Cheeyong, 2015). Fashion brands that used the Magic Mirror in their marketing methods encountered higher engagement and positive outcomes such as increased buying intentions and consumer satisfaction (Xue et al., 2022). AR's ability to enrich users' information quality for a product and personalising their own experience, offers an excellent opportunity to provide an enhanced consumer shopping experience and gain a competitive edge in the industry (Cuomo et al., 2020).

An example of a successful AR immersive application is Pokemon Go, launched in 2016 and reportedly downloaded 800 million times since its launch. This application captured the map of the real world and created a virtual environment via mobile application. It was a hit due to its interactivity and depiction of the game being similar to its gaming franchise (Crofton et al., 2019). When technology meets art, AR has delivered dynamic visual signals and high degrees of presence through mental imagery, resulting in a purchase of artwork owing to a favourable consumer experience (He et al., 2018). Additionally, AR mobile tourist applications have boosted the sensation of presence by employing virtual surroundings to recreate real-world sites without needing to physically participate (Dağ et al., 2023). IKEA is an internationally recognized firm that currently uses AR to deliver an immersive mobile experience for its customers, providing autonomy to interact with and position furniture in their physical surroundings, ensuring high consumer engagement with their products (Scholz & Smith, 2016).

Converse employed AR to enable consumers to visualize shoes on their feet as well as share product information in real-time using smartphone applications to deliver an in-store experience regardless of location (Billewar et al., 2021). Certain high-end fashion brands, such as Burberry, have embraced AR by developing a platform that allows consumers to design their 3D pocket bags using their website or mobile app. Consumers may digitally position the pocket bag into their surroundings to see how it compares to real-world objects and experiment with alternative shapes and sizes (Javornik et al., 2021). This evolving technology has been applied online to scan products, read consumer reviews, and examine the product in multiple colours, providing buyers with comprehensive product information and a positive interactive online experience (Martínez et al., 2014). Consumers who have encountered AR technology in the online fashion retail space significantly affected purchasing outcomes in terms of utility, enjoyment, and their attitude towards the adoption of AR. This demonstrated AR can be used as a new shopping method to enhance consumers experience and engagement (Cho & Son, 2019).

2.4 AR's Impact on the Consumer Decision-making Process

2.4.1 Pre-Purchase Stage

When consumers recognize that they need to fulfil a particular need or demand, they begin to consider their quest for a solution to their problem (Stankevich, 2017). These problems result from unmet consumer values or beliefs, such as wanting to buy sustainable fashion goods to boost their social standing and meet societal expectations, which may feel gratifying for the consumer (Ciasullo et al., 2017). Need recognition can be caused by internal or external stimuli that make the consumer realize that there is a difference between their current and desired states (Armstrong et al., 2014).

Internal stimuli is categorized into four dimensions: learning, motivation, perception and personality. The learning dimension, caused by educational influences induce internal stimuli to purchase products, for example, provide training (Bhakat & Muruganatham, 2013). Motivation is the psychological drive or incentive to act on something or achieve a goal (Rahmat & Maolana, 2017). Analysing how consumer motivations can influence purchasing intentions on online fashion-sharing platforms through hedonic, utilitarian and ecological motives (Won & Kim, 2020). Consumers employ several indicators to perceive the quality of a product; nevertheless, this quality is subjective since each perception is influenced by factors such as value, price, or knowledge (Agyekum et al., 2015). Behavioural purchasing patterns influence internal triggers of personality, such as preferring low-cost or high-value products (Tan et al., 2023). Lastly, customer attitude is defined as the consumer's willingness to accept or embrace a product or service due to their cognitive processes regarding environmental stimuli (Asiegbu et al., 2012). When outside influences impact a person, this is referred to as an external stimulus (Stankevich, 2017). External stimuli includes one's social surroundings, such as family, friends, or culture (Rahmat & Maolana, 2017). This is subjected to marketing messages sent both online and offline. For instance, promotional incentives, including advertising, window displays, and the retail atmosphere (Ayub & Zafar, 2018). External cues e.g. visual appeal, navigability, security display, and the marketing mix (product, price, placement) can all activate consumer purchasing behaviour in need recognition (Kimiagari & Asadi Malafe, 2021).

For consumers' identified needs to be fulfilled, it will often undertake internal searches, such as leveraging prior knowledge and expertise about the product or service that satisfies their needs and desires. Or, external searches, e.g. brand-exposed marketing communication efforts of the product or service qualities on online platforms (SEO) or offline conventional media (Mihart, 2012). Nowadays,

consumers are highly likely to conduct external information searches online through websites, smart devices, and other digital platforms, as the availability of information is much greater than in offline media (Broilo et al., 2016). An internal information search requires consumers to recall information, experiences, and feelings from the memory of the specific product or service they are researching (Gursoy & McCleary, 2004). Brand familiarity positively interacts with internal information search because customers are more likely to recall earlier interactions with the brand's products or services and be exposed to numerous media commercials before seeking current information (Park & Stoel, 2005).

Progressively, consumers have prioritized direct purchasing experiences to show their originality, prompting the fashion retail industry to explore innovative tactics to provide a new experience for its consumers, such as AR (Yang et al., 2022). According to Lee et al. (2020), integrating AR to market fashion products via virtual fitting rooms with realistic settings and digital upgrades resulted in an overall pleasant immersive user experience owing to its interaction and telepresence. Telepresence can be summarized as the "sense of being there" in one location or environment (e.g. virtual or augmented) while physically being in another (Witmer & Singer, 1998). As a result, consumer attitudes and acceptance of AR have improved.

Immersive experiences can aid in achieve higher performance by influencing customers' positive emotions (e.g., pleasure, arousal, dominance), customer values (e.g., utilitarian value, hedonic value, social value), and eventually, changing their behavioural response (Nhan et al., 2022). Augmented reality creates an immersive and interactive environment by employing haptic feedback, tracking, and real-life hand motions to engage with AR applications to deliver a realistic and positive user experience (Zheng et al., 2017). By producing virtual aspects of actual and imagined environments, AR technology may collect new data, generate new experiences, and deliver new insights (Liberatore & Wagner, 2021). Formerly, immersion was mainly achieved through virtual worlds; now, smartphones have created an alleyway for AR to provide immersion through mobile applications (Kim, 2013). This technology creates a 'playground' effect where users can customize their experiences in a playful, creative, and enjoyable manner, driving consumer engagement while interacting with products and services via mobile apps, websites, or other compatible platforms (Jessen et al., 2020).

2.4.2 Purchase Stage

After discovering products or services according to their needs, consumers will undergo alternative evaluations (consideration sets). This entails analysing the various products or services and

determining which is the ideal one for them, influenced by their choice of brand, features, price, or other variables (Huang & Kuo, 2012). Consumers can do this by reading reviews of their specific choice set, including competing alternatives to save time while eliminating choices (Jang et al., 2012). eWOM is a fundamental contribution when evaluating alternatives due to its credibility and usefulness in obtaining knowledge and information about real experiences from other people (Ngarmwongnoi et al., 2020). In addition, using cross-channel synergy in searching and assessing alternatives, demonstrated to produce better outcomes in purchase intentions than utilising single channels (Frasquet et al., 2015). A thorough grasp of online products or services before purchase, improves the decision-making process's efficiency by minimising the number of cycles and the time of search for products and services. This provides an opportunity for consumers to focus solely on relevant alternatives (Karimi et al., 2015).

As an outcome of this evaluation, the consumer will decide on the product that will provide them with the most value and satisfaction while exceeding their expectations, resulting in a purchase decision (Teo & Yeong, 2003). These purchasing decisions can be made online or offline (Sarkar & Das, 2017). Online purchasing decisions can be made through mobile applications, websites, e-commerce, or social media (Makki & Chang, 2015). Purchasing goods through digital interfaces gave a complete consumer experience unified by the simplicity of use, personalization, and online social connections (Bilgihan et al., 2016). Shopping environments, staff services, and product experiences, in-store purchase decisions also lead to overall customer experience (Pei et al., 2020).

Social media has also been a popular medium for AR to provide consumers with an immersive experience. The sensation of ideal and altered self-presentation, enjoyment, convenience, social engagement, and creative content curation motivates consumers to employ AR filters in their daily social media networking (Javornik et al., 2022). AR filters can be used for entertainment purposes that are fun and enjoyable to interact with, which leads to hedonic satisfaction (Ibáñez-Sánchez et al., 2022). Instagram, for example, employs AR filters on stories, allowing users to customize and insert messages, photos, or videos to blend with their surroundings as a form of social communication with peers as well as personal amusement (Sukmawati et al., 2022). Moreover, interactions using AR technologies on social media, such as Snapchat filters, have also resulted in purchase intentions as a result of perceived comedy, self-brand congruity, and self-referencing in advertising (Dodoo & Youn, 2021). Customers who interact with AR technology often develop good attitudes, trust in AR apps and have high levels of perceived utility, resulting in an immersive and pleasurable customer experience (Arghashi & Yuksel, 2022).

2.4.3 Post – Purchase Stage

In the post-purchase stage, product consumption performance becomes evident after consumers wear and care the product. Consumers will re-evaluate the purchase of the product and product consumption performance. The result of the evaluation will lead to satisfaction or dissatisfaction (Chen-Yu & Kincade, 2001). Consumers who purchase a product may share their experiences via online platforms such as social media to express their evaluation and contribute information through eWOM to better assist other prospective consumers and brands (Hajli et al., 2014).

WOM is one of the most potent forms of communication and is vital for building strong marketing relationships with customers (Gildin, 2003). Negative and positive WOM conveyed through brand communities significantly influences brand reputation and trust in service and product quality (Relling et al., 2016). Positive WOM may also indicate consumer satisfaction with a brand's product or service, increasing the likelihood of repurchase and client retention. (Ranaweera & Prabhu, 2003). Negative WOM may apply if there has been a service failure and consumers have had an unsatisfactory customer experience. This has an adverse effect on consumer attitudes, repurchase intentions, and a firm's brand image (Balaji et al., 2016). Adverse effects on customer attitudes can result in negative emotions such as regret towards a brand, lowering satisfaction levels, and increasing brand-switching inclinations post-purchase (Bui et al., 2011). However, a post-purchase negative customer experience allows brands to adopt service recovery strategies to build brand image and sustain customer relationships (Holloway & Beatty, 2003).

2.5 Literature Contribution

Despite the extensive exploration of AR in the existing literature, there remains a notable gap concerning the understanding of how AR influences consumer motivations in the distinct stages of the online fashion purchasing journey. For example, Watson et al. (2018) investigated customer behavioural responses to AR applications in fashion retail and how this influences purchase intention. In Watson et al.'s research, hedonic shopping motivations were revealed to moderate the relationship between AR and purchase intentions. As a result, they recommend that future studies explore deeper additional experimental values that include different motives, such as extrinsic and intrinsic motivations, and how these affect purchase intention in the fashion space. While the literature has acknowledged the adoption of AR in the online fashion industry and its potential impact on consumer experience, a dearth of research focused specifically on the intricate interplay between AR technology and extrinsic and intrinsic consumer motivations within the context of online fashion product purchases.

Similarly, Wells et al. (2011) explored online website shopping and customer purchase intentions, pointing out the insufficient investigation into the combined effect of extrinsic and intrinsic signals in an online virtual experience. Therefore, there is an opportunity for further research to bridge this gap and enhance our understanding of the intricate dynamics involved in consumer motivations within the realm of AR and online fashion purchasing. Most existing studies primarily focus on whether individuals express an intention to make a purchase, yet there is a pressing need to probe further into understanding consumer behaviour. Yaoyuneyong et al. (2018) advocated for exploring the customer decision-making processes within virtual dressing room applications, involving thoroughly investigating how consumers engage in direct purchases within AR fashion experiences. Conducting this qualitative research is crucial, as it provides a deeper understanding of how AR significantly shapes purchasing decisions. Analysing the detailed aspects of consumer behaviour in this context yields valuable insights into the overall decision-making process, benefiting businesses and scholars with novel perspectives.

The existing body of literature has predominantly discussed the general effects of AR adoption, such as enhanced user experience, immersive features, and interactive elements. However, there is a need for more targeted investigation into how AR influences consumer motivations during critical decision-making stages, namely during the search, evaluation, and purchasing phases of online fashion transactions. Understanding the specific motivational triggers that AR technology may activate in consumers is crucial for comprehending the depth of its impact on purchasing decisions.

Therefore, this research aims to address this gap by examining the intricate relationship between AR technology and consumer motivations, with a particular emphasis on both extrinsic and intrinsic factors. The proposed research questions in the next chapter will guide the exploration of how AR influences consumer motivations during different stages of the online fashion purchasing process.

2.7 Summary

The literature review defined AR technology and its essential immersion, interaction, and product development qualities. Given AR technology is still in its early stages, the literature suggests that it has certain limitations. The research concentrated on the online fashion sector, analysing current shifts in customer behaviour and examples of AR technology adoptions in the industry. A review of the literature on the consumer decision-making process was conducted in order to comprehend the three stages of the process: pre-purchase, purchase, and post-purchase. To conclude, the review provided an understanding of the two types of consumer motivations, intrinsic and extrinsic, and how they are currently used in online purchasing and AR technologies. Intending to research how AR can influence

consumer motivations to purchase online fashion goods, this literature thoroughly explains essential concepts and theories that will further inform the study and participants.

Chapter 3: Methodology

3.1 Introduction

This research study explores the influence of AR on consumer motivations in the decision-making process for purchasing online fashion products. It will uncover the complex interplay between AR and consumer motivations, offering relevant and meaningful insights to researchers and fashion industry practitioners. The analysis adopts relativist ontology, subjective epistemology, and an interpretivist paradigm. Based on this subjective nature of reality, the importance of individuals' interpretations and experiences, and the need to understand social and cultural contexts assists in exploring this phenomenon (Levers, 2013).

The sampling process for this study is intended to select individuals who can contribute significant insights and experiences relating to the use of AR in the online fashion shopping experience. Individuals between the ages of 18 and 30 with experience in online fashion purchasing and exposure to AR were invited to partake in this research. The selected participants are from New Zealand and include people from diverse backgrounds, enabling a wide scope of viewpoints and interpretations. Semi-structured interviews and participant viewing of AR were used in this study to collect data, allowing participants to explore and engage with the technology first-hand. Participant viewing permits familiarity with the AR so answers can be based on real experiences rather than theoretical knowledge. The selected individuals were given a demo application provided by PICTOFiT (n.d.). This AR virtual try-on plugin software company allows fashion brands to implement their services into their websites/apps. This method is imperative to the interview process as it improves participant recollection of AR, and encourages participants to deliver relevant and insightful material during the interviews.

By combining these research perspectives and data collection methods, a robust analysis of the influence of AR on consumer motivations in the online fashion purchasing process can be examined. The findings contribute to a deeper understanding of how individuals subjectively interpret and derive meaning from their experiences with AR, shedding light on the intricate dynamics between technology and consumer behaviour. This knowledge can inform the development of strategies and approaches for leveraging AR in the fashion industry, ultimately enhancing the online shopping experience and customer satisfaction.

3.2 Relativist Ontology

This study's ontology adheres to the relativist viewpoint. According to relativist ontology, reality is generated within the human mind; hence, there is no one truth or 'correct' or 'wrong' response (Moon & Blackman, 2014). Consequently, reality is subjective to everyone who perceives it at a particular moment and location. The fundamental purpose of this investigation is to explore and acknowledge how the employment of AR will impact customer motives while purchasing online fashion items. Highlighted concepts drawn from various experiences of customers' perceptions of AR during the online purchasing process will be presented.

A relativist ontology captures the range of customer experiences while avoiding the imposition of pre-existing notions on the research findings (Krauss, 2015). Variables such as consumers' fashion tastes, individual styles, and cultural influences impact their motives and their purchasing decisions (Hoyer & Stokburger-Sauer, 2011). In the context of online fashion purchasing, consumers may have different motivations for using AR. For some, it may be about enhancing their shopping experience, by trialling virtual clothes, or visualising how fashion products look on them (Yaoyuneyong et al., 2014). Others may be driven by the desire to explore innovative technology or to keep up with the latest trends (Xue et al., 2022). These motivations are subjective and context-dependent, and a relativist ontology enables the researcher to understand and interpret them through the participant's perspective. Thus, people's motivations are dependent on their feelings and the environment they find themselves in. As a result, the relativist ontology is appropriate for this research.

3.3 Subjective Epistemology

This study uses subjective epistemology to explore how AR influences consumer motivation in the decision-making process for purchasing online fashion products. This epistemology recognizes that knowledge is generated via subjective experience and individual interpretations. It acknowledges that consumer motives and decision-making processes are subjective and context-dependent, influenced by personal views, values, and cultural origins (Raskin, 2020). A subjective epistemology allows for a deeper study of customers' personal experiences and perceptions of the influence of AR on their purchase decisions. It recognizes that customers are active decision-makers and that their subjective perceptions and interpretations fundamentally influence their motives and behaviours.

By adopting a subjective epistemology, this research uncovers the chemistry (Yilmaz, 2013) between AR and consumer motivations. Specific individuals can perceive AR as an innovative and exciting way to enhance their shopping experience (Baytar et al., 2020), while others could view it as a gimmick or as an unnecessary feature (Jiang et al., 2021). These subjective interpretations influence

their motivations and decision-making processes, and a subjective epistemology allows for an in-depth exploration of these individual perspectives. Furthermore, a subjective epistemology recognizes the significance of unique stigmas that customers attach to AR (Feast & Melles, 2010).

Moreover, the research moves beyond generalizations and dissects consumers' rich and diverse experiences (Al-Ababneh, 2020). It enables the exploration of how AR is subjectively perceived, understood, and utilized in the context of online fashion purchasing. This understanding is crucial for developing a comprehensive picture of the complex dynamics between AR and consumer motivations and for providing relevant and meaningful insights to researchers and practitioners in the fashion industry.

As a result, a subjective epistemology is key for this research topic as it emphasizes the subjective character of consumer motives and decision-making processes. By embracing this epistemological viewpoint, the study will be able to explore the individual and subjective meanings that consumers connect to AR in the online fashion industry. It enables a thorough knowledge of how customers subjectively interpret and draw meaning from their AR experiences, providing significant insights into the complicated interplay between technology and consumer behaviour.

3.4 Interpretivist Paradigm

This research adopted an interpretivist paradigm to collect qualitative data that focuses on how consumers can leverage their prior experiences and knowledge of digital platforms. This sheds light on their current motives that drive them to purchase products online. The interpretivist paradigm accepts that there are in-depth meanings to a single phenomenon and that each individual's perception will differ from one another in ways that cannot be quantified (Alharahsheh & Pius, 2020).

Researchers that use the interpretivist paradigm and qualitative methodologies frequently seek personalized experiences, understandings, and perspectives for their data to reveal truth rather than relying on numbers of statistics (Thanh & Thanh, 2015). This paradigm aligns with this investigation to better understand multifaceted consumers' perspectives, experiences, and understanding of utilising AR for fashion apparel. In addition, the interpretivist paradigm approach will inform how AR adoption may be utilized in marketing initiatives concerning consumer behaviour and motivations. Interpreting these consumer perceptions leads to a better understanding of AR and how to create positive online fashion experiences in a virtual context.

The interpretivist paradigm emphasizes the importance of understanding human behaviour and social phenomena within specific social and cultural contexts (Wahyuni, 2012). Recognising that individuals actively construct meaning from their experiences and these interpretations influence their behaviours

and decision-making processes (Rowlands, 2005). In the context of this research, an interpretivist paradigm allows for a holistic and contextualized understanding of the impact of AR on consumer motivations.

Compared to other paradigms and methods, the interpretivist paradigm offers several advantages in addressing this research question. It recognizes the complexity and richness of human experiences, allowing for a more comprehensive exploration of the various factors that influence consumer motivations (Nguyen & Thanh, 2015). By understanding how consumers interpret and derive meaning from their interactions with AR, the research can capture the nuances and intricacies of their decision-making processes. The interpretivist paradigm aligns with the nature of the research question, which focuses on exploring consumer motivations rather than establishing universal generalizations.

3.5 The Sampling Process

The sampling process for this research study selects participants that provide meaningful insights and experiences regarding AR in the decision-making process for purchasing online fashion apparel. The population outlined for this study is specifically chosen based on several factors to ensure the relevance and richness of the data collected.

The participants in this research are between the ages of 18 and 30 and of all genders, as new technologies inspire and drive younger consumers to discover new products, search for information, and evaluate alternatives online (Perea y Monsuwé et al., 2004). Generation Z (aged 18-24) and Millennials (aged 30-35), as emphasized in HubSpot's 2023 reports, emerge as the leading forces in the world of online commerce, actively engaging with digital platforms for their day-to-day endeavours (Iskiev, 2023). In light of this revelation, the research strategically focuses on these targeted audiences, portraying them as prolific online shoppers and widespread users of multiple online platforms. Additionally, these participants would have already purchased fashion apparel online and have been exposed to AR. Having prior knowledge in a given context in research is beneficial for comprehension of the overall study (Ozuru et al., 2009). Consequently, having participants with previous experience in online shopping will be valuable in finding meaning with an appropriate level of expertise that can better inform this study.

For the interviews, the sample size consisted of 13 participants to ensure the collection of sufficient data and to identify arising themes in the analysis process. The sample size considered thematic saturation being met, meaning that no new significant themes emerge from the data. Participants volunteered to partake in this study and were briefed on all research elements (Khan, 2014). Invitations were distributed in a variety of ways, including WOM through social circles such as

friends, family, and co-workers; posters/fliers distributed on AUT City Campus; and social posts on Facebook, Instagram, and LinkedIn to reach a number of diverse individuals.

Once prospective participants demonstrated an interest in participating in the research, an email was sent by the researcher with an consent form and information sheet outlining the study’s general details. Consent forms were stored safely and securely after it was filled and submitted. As a token of appreciation for their time, all participants received Koha for their contribution, i.e., a \$30 gift card.

Table 1 provides an overview of the research participants’ demographic information. Each participant were assigned numbers (1,2,3,..., etc.) to remain anonymous for ethical purposes.

Table of the Participants

The specifics of AUT’s Ethics Committee approval are shown in Appendix A. Appendix B contains details such as the participant information sheet, consent form, and invitations to recruit participants.

Table 1

Participant Information.

Participant No.	Gender	Age
Participant 1	Female	21
Participant 2	Female	23
Participant 3	Female	27
Participant 4	Female	26
Participant 5	Female	25
Participant 6	Male	18
Participant 7	Female	22
Participant 8	Female	27
Participant 9	Male	28
Participant 10	Male	25
Participant 11	Male	29
Participant 12	Male	24
Participant 13	Male	23
Average	F=53.84% M=46.15%	24 y/o

3.6 Data Collection Procedure

This research employs qualitative methods to gather and analyse data. Qualitative approaches are often employed to decipher complicated theories or concepts with limited information (Njie & Asimiran, 2014). These research methods are applied when researchers want to acquire meaningful data by examining a topic from the participants' perspective (Rosenthal, 2016). Given that AR is in its developmental stage, there is room for improvement in features such as resolution, field of view, cost, and usage (Van Krevelen & Poelman, 2010). The advancement of this technology can open many doors for future innovation in marketing. Therefore, a qualitative study will yield intriguing interpretations and inspire valuable suggestions for how it influences consumer behaviour and the possibilities of AR use in marketing.

3.6.1 The Participants' Experience of Using AR

The participants were provided with an opportunity to view an AR-enhanced online fashion platform to strengthen the interview process. They were directed to a specific application (PICTOFiT, n.d.) which showcases customizable online fashion apparel utilizing AR. Participants were free to explore the features, interact with the AR elements, and observe how the technology can influence the online shopping experience. The pool of participants had the ability to trial the app for a week before the interview process began to thoroughly grasp their understanding of AR and how its applicable to the online fashion space. Interacting with the application provides tangible and experiential understanding of AR, allowing participants to provide relevant and insightful information during the interviews.

Participants had first-hand experience with AR's characteristics, capabilities, and possible advantages (Steffen et al., 2019). During the interviews, this contextual awareness enabled participants to talk from a position of familiarity and relevance (Rust et al., 2017). Securing that their responses and insights were based on real-world experiences rather than hypothetical or abstract conceptions of AR. If any participants found it challenging to navigate the application, I, as the researcher, facilitated an opportunity for them to familiarize themselves with the technology during the interview, ensuring their comfort with the platform before addressing any interview questions.

The participants' experience of interacting with AR improved participants' recall and ability to provide detailed information during the interviews. In the study by Leue et al. (2014), participants who interacted with AR Google Glasses to recall paintings were able to express in their interviews specific knowledge about artist, name of the painting, as well as associating with other artworks; displaying a strong recollection of small details that would have otherwise gone amiss. In this context, by engaging with the technology initially, the participants remember specific features, functionalities,

and their experiences of using AR in the online fashion context. This enhanced recall can lead to more accurate and specific responses, providing affluent data.

Hussein M & Nätterdal (2015) stated that prototype testing of a VR application before questioning the participants on their experience was more effective, compared to non-prototype testing. For educational purposes, using such technology to create an immersive atmosphere for participants to focus solely on the details aided extensive knowledge that the researcher could explore further. In the case of this research, interacting with AR prior to interviews equipped the participants with the necessary knowledge to provide informed and thoughtful responses. Reinforcing the practical implications, benefits, and challenges of using AR for purchasing online fashion products for participants. The informed responses and perspectives contributed to the depth and quality of the data collected.

AR can be perceived contrarily by individuals, and their perceptions may not align with the capabilities and functionalities of the technology. Studies have shown that prior to interacting with AR, their perception of the technology itself changed after engaging with it and led to developing new perspectives, ideas and considerations in design (Wang et al., 2008). By allowing participants to view and engage with AR first-hand, any gaps between their perceptions and the reality of AR can be addressed. This ensures that the subsequent interviews are based on a shared understanding of the technology, leading to more accurate and meaningful discussions about its impact on consumer motivations and decision-making processes. Participants may also develop novel perspectives and ideas they can share during interviews. This experiential element adds depth and richness to the data collected and encourages the participants to articulate their thoughts and motivations more effectively.

3.6.2 Semi-Structured Interviews

The participants were interviewed once they had interacted with the AR application. Semi-structured interviews were considered to be the best approach for this study to allow for autonomous but relevant responses. This method provided a delicate balance between structure and flexibility (Pathak & Intrat, 2012). Researchers provide a predefined set of open-ended questions, to explore emerging themes and follow up on participants' responses. It provides a leeway for probing and clarifications, ensuring a comprehensive understanding of participant's viewpoints (Ruslin et al., 2022). The nature of this interview enables an in-depth exploration of the participants' experiences, perceptions and motivations related to AR and online fashion purchases.

Altogether, 13 were completed to ensure that thematic analysis reached saturation. These interviews were about 1 hour each, and 130 hours in total. Moreover, all interviews were conducted in English,

outlined in the information sheet in (Appendix C), to inform the prospective participants that they needed to be fluent in the language. These sessions were held in private study rooms on AUT City Campus to ensure each participant's privacy and comfort. My availability was important to ensure I respond to any questions that would be addressed sincerely at any point before or during the interview process.

The study's purpose was conveyed to the participants at the outset of each interview. Following this, the participants' consent to record their conversations were granted. Participants were told that all identifying information would be kept anonymous. In addition, it was made clear that their participation was completely optional and that they may opt-out at any time as they wish.

The study investigated a series of open-ended questions to help understand the three sub-research questions regarding the consumer decision-making process. These questions encourage the participants to describe their experiences using the AR platform and how this influences their buying behaviour in the online fashion space, roughly following the interview guide in Appendix B. These questions include a general understanding of how the participant found their experience with AR when they were searching, evaluating and at the purchase stage of their journey. Participants were asked what motivated them to take specific actions in their journey that were profound. Subsequently, questioning their attitude towards the online fashion space adopting technology such as AR in future marketing endeavours.

Outlined below are the key interview questions asked of the participants of this study during their interview based on their experience with AR applications.

Table 2

Interview Questions.

RQ: How does augmented reality technology influence consumer’s motivations into purchasing online fashion products in the consumer decision-making process?	
Opening Questions	<ol style="list-style-type: none"> 1. How often do you shop online for clothes? 2. Why do you prefer it more than shopping traditionally? 3. What is the biggest difficulty you face when you interact with online stores? 4. So, what did you like the most when you were fiddling around with the website/application? 5. What features stood out to you when you were using the AR tool that you don’t normally see in your daily online shopping experience?
RQ1: How does the use of augmented reality technology influence consumer motivations (extrinsic and intrinsic) when searching for online fashion products?	<ol style="list-style-type: none"> 1. What aspects of augmented reality technology do you find appealing or motivating when it comes to browsing through for online fashion products? 2. What specific aspects of the website/application do you find appealing or motivating when looking for online fashion products? <ol style="list-style-type: none"> a. Or/AND, How does the availability of special incentives or rewards on the application/website encourage you to search for a wider variety of online fashion products? 3. How did you enjoy your experience with using the AR tool when browsing through for online fashion products? <ol style="list-style-type: none"> a. OR/AND, how did the interactive nature of AR enhance your motivation to explore and engage with the online products? 4. In your opinion, how does did the AR embedded website/application provide a more interactive and engaging experience when searching for online fashion products, which contributes to your intrinsic motivation? 5. How did the addition of AR address any limitations or challenges you may have encountered when searching for fashion products online previous to this experience?
RQ2: How does the use of augmented reality technology influence consumer motivations (extrinsic and intrinsic) when evaluating online fashion products?	<ol style="list-style-type: none"> 1. How did the features of the AR embedded website/application help you choose between products? How is this different from traditional online shopping? 2. What’s your opinion on being able to visualize and try on virtual fashion products using augmented reality technology when choosing between them? 3. How did you perceive the ease or difficulty of evaluating between products with the help of AR? 4. When you were going through the clothes on the website/application, what incentivized you to click on the fashion products? (e.g. it was on sale, it looked nice, could mix and match, etc.) 5. What made you choose an item over the other when you were using the AR embedded platform? 6. How is the experience different from using other apps 7. How are your emotions different from using other apps for shopping
RQ3: How does the use of augmented reality technology influence consumer motivations (extrinsic and intrinsic) when purchasing online fashion products?	<ol style="list-style-type: none"> 1. What specific feature(s) made you instantly want to purchase the item because of how it looked through AR? 2. If you had to buy an item on the website/application, what would motivate you to click check out on the website because of the help of AR? 3. What feelings did you experience when shopping online because of the help of AR? (Confidence, convenience, reduced risks, etc.) 4. Overall, based on your experience, how does the use of augmented reality technology influence your motivations when purchasing online fashion products? 5. What’s your opinion on - if more online fashion stores started using AR technology on their websites? 6. What brands do you like more

3.7 Data Analysis

This study's rich interview data encompasses 130 hours of in-person interaction with AR and audio recordings, translating into approximately 75 pages of 13 thoroughly transcribed interviews. All participants were aged between 18 and 30, targeting the key generations of current extensive online shoppers.

The audio recordings were transcribed using the advanced online tool Otter.io (n.d.) to ensure precision and integrity in capturing participants' voices and experiences. Subsequently, the transcripts were meticulously edited to ensure grammatical accuracy and to correct any possible errors caused by the intricacies of translation within the application.

In order to maintain our commitment to participant validation and transparency, the finalized transcripts were thoughtfully returned to each participant for their review, allowing them to confirm the accuracy of their contributions while also retaining ownership of their experiences. This conscientious method honours the participants' voices and strengthens the study's qualitative data's integrity and authenticity.

Upon completing the interview data-collecting phase, the gathered material was subjected to a thorough analysis using thematic analysis. Braun and Clarke (2006) define thematic analysis as a systematic process for identifying, analysing, and elucidating reoccurring patterns within data, generally referred to as themes. This approach is extensively used due to its adaptability in tackling various research challenges and disciplines. Thematic analysis, whether applied to surveys or transcribed interviews, provides a complex and interpretive exploration of topics, allowing for deep comprehension of behavioural patterns and motives (Castleberry & Nolen, 2018). This best aligns with the research goals of exploring and grasping the behavioural patterns affecting online fashion apparel shopping decisions influenced by AR. Furthermore, it ensures an organized review of the obtained data to uncover underlying themes, providing valuable insights into the intricacies of consumer motivations (Perannagari & Chakrabarti, 2019).

The NVivo programme was a facilitative tool in executing this analysis. NVivo is a qualitative data analysis program well-known for its robust features like character-based coding, compatibility with rich text, and multimedia capabilities (Zamawe, 2015). These characteristics are critical for thoroughly comprehending and interpreting qualitative data, allowing for a sophisticated exploration of the many themes in participants' responses.

The initial step entails becoming familiarized with the dataset to establish a foundational understanding of the information. After becoming acquainted with the data, the process is followed by the generation of codes to identify and label significant patterns or concepts within the dataset. Thirdly, the analysis consists of identifying and defining themes which were thoroughly reviewed to ensure coherence, consistency and relevance to the research objective. The final stage involved synthesizing the analysed data to present the following findings chapter, providing meaningful interpretation of the thematic analysis results. This qualitative codebook is depicted in Appendix A, which assisted in the creation of the study's findings report.

3.8 The Researcher Position

I obtained a Bachelor of Business in Marketing and Economics from AUT, reflecting my formal education and understanding of marketing concepts and economic elements that drive customer behaviour. My academic background provides a solid foundation for investigating and comprehending the complexities of consumer motives in the context of online fashion purchases and AR technologies.

During my studies from 2021 to 2023, I worked as a marketing and digital marketing coordinator at global software firms and prominent organizations such as Les Mills International, ezyVet, and RE/MAX. This work experience provided me with hands-on knowledge of marketing tactics, digital platforms, and consumer engagement. Exposure to various sectors and businesses interested in implementing AR demonstrates my knowledge of upcoming marketing trends and technologies.

Through AUT partnerships, I have shadowed a leader at The Warehouse Group, one of New Zealand's largest retail corporations. This experience gave me exposure to a significant participant in the retail industry and their emphasis on innovation and delivering engaging experiences for consumers. Industry practices and viewpoints enriched my understanding of the value of emerging technologies, such as AR, in improving consumer experiences in online and offline retail.

My experience with marketing, specifically online marketing, has piqued my interest in newly developed technologies that have the potential to alter the future of online experiences. I have encompassed curiosity and excitement, demonstrating my proactive attitude to remain aware with rising marketing trends and developments. Additionally, it illustrates my drive and enthusiasm for researching the influence of AR technologies on customer incentives in the online fashion industry.

Even though I have experience and beliefs in the online marketing and retail area, I am aware that this may interfere with my interpretations of data analysis. However, for this study, I am committed to

presenting the data in a participant-centred manner and ensuring that all of their voices are appropriately reflected in the findings. My specialization in marketing concepts, practical understanding of the retail sector, and technological awareness, helped me better grasp the participants' views and opinions. In addition, my practical and academic experiences have sharpened my critical thinking and analytical skills. These abilities were instrumental for analysing data, discovering relevant patterns and links, and drawing insightful conclusions.

3.9 Ethical Considerations

The study followed the ethical guidelines established by the ethics committee at Auckland University of Technology (approved 25th August 2023) to safeguard the well-being and rights of the participants. Participants were requested to complete a consent form (Appendix C) to ensure voluntary participation. This document detailed their confidentiality rights and the protection of their identity during the research. Participants can decline or skip any questions they do not desire to or feel comfortable answering. Furthermore, individuals were free to leave the interview or decline participation at any time during the study, as detailed in the consent form. They were also emailed a transcribed version of their interview to review and request anything they may want to remove. All participants had provided informed consent for their involvement in activities such as audio-recorded interviews, participant viewing of AR, and notes being taken during the interview process (Appendix C). During the data collection phase, I assured to maintain the confidentiality of the participants by portraying them as numbers in the study to remain anonymous. Moreover, my obligation as the researcher was to create a secure and comfortable setting for the participants in my study. I am committed to demonstrate professionalism, integrity, and compassion for the communities involved. This entailed comprehending the time and effort invested by the participants to become well-informed about the study prior to doing interviews, for instance, reading the research information background and engaging with the AR tools/applications used in this study. If they have additional enquiries about the study, they have full access to my contact information. All questions or concerns from the participants were handled honestly and explicitly to ensure the process begins with trust and goodwill between the participants and myself.

3.10 Summary

The intention of this research is to explore the impact of AR technology on consumer motivations in the decision-making process for purchasing online fashion products. It adopts a relativist ontology, recognising the subjectivity of reality and understanding consumer perceptions of AR. The study employs a subjective epistemology, acknowledging that consumer motivations are subjective and context dependent. An interpretivist paradigm is used to understand consumer behaviours and decision-making in the context of AR. The population for the study includes diverse individuals between 18 and 30 years old who have experience with online fashion shopping and AR. Data collection methods involve semi-structured interviews and participant viewing of AR. To summarize, each content of the study will thoroughly follow the ethical guidelines to protect the participants' welfare and privacy.

Chapter 4: Findings

4.1 Introduction:

This chapter unveils preliminary discoveries derived from a thematic analysis of qualitative semi-structured interviews conducted with 13 voluntarily participating individuals. The study facilitated participant interaction with AR via the PICTOFiT online AR fashion application, accessible through the Apple App Store. Participants informed their responses based on hands-on exploration and interaction with the application. This proactive engagement with AR technology prior to the interviews yielded crucial insights and nuanced interpretations of consumer behaviour during the online fashion apparel shopping decision-making process.

In this context, the central objective of the present study is to investigate: How does AR technology influence consumer's motivations into purchasing online fashion products in the consumer decision-making process?

To refine the study's outcomes for a more profound comprehension of consumer behaviour and AR technology, the research introduces three sub-questions categorized within the theoretical framework of the consumer decision-making process. The subsequent sub-research questions are delineated below.

SRQ1: What are the consumer motivations (extrinsic and intrinsic) when searching for online fashion products using AR?

SRQ2: What are the consumer motivations (extrinsic and intrinsic) when evaluating online fashion products using AR?

SRQ3: What are the consumer motivations (extrinsic and intrinsic) when purchasing online fashion products using AR?

The findings are presented in four comprehensive categories, each organized around a central theme and corresponding sub-themes. The objective is to address the research question regarding the impact of AR on both extrinsic and intrinsic consumer motivations within the decision-making process for online fashion apparel shopping. These distinct sections encapsulate key themes derived from the analysis of 13 semi-structured interviews. The results shed light on current online shopping behaviours and the challenges faced by consumers, along with significant motivators and demotivators influencing their decision-making process with AR. These qualitative findings may be found in Appendix D, which showcases the coding process that assisted in the creation of the study's findings report. The findings also delve into social impacts, offering a deeper understanding of

consumer behaviours in the online fashion realm. The ensuing summary will concisely outline the study's outcomes, setting the stage for a comprehensive discussion and conclusion in the subsequent chapter.

4.2 Online Shopping Behaviour and Challenges

4.2.1 Changes in Online Shopping Behaviour due to COVID-19

There has been a rise in consumption of fashion apparel in online shopping platforms due to COVID-19 as fashion companies were rapidly transitioning to online to prevent overstock and anticipate consumer behaviour changes in this time (Koch et al., 2020). The observed increase in online fashion consumption during this time period has had a significant impact on customers' decision-making processes. The viewpoint of Participant 8 provides insight on this dynamic, explaining the multiple elements that have led consumers to choose online buying. Many people have been financially strained as a result of the pandemic's interruptions, which have resulted in changed spending capacity:

“Due to COVID, A lot of people are still not back to their regular pay, or they're just getting by, so the things they used to afford before the pandemic are not the same. Inflation has gone up as well. So, that's also another factor, and availability, you know, if you're more available online, then most likely people will buy there.” - Participant 8, Female, 27 years old.

Taking this participant's comments into consideration, COVID-19 has imposed financial limitations due to increased inflationary pressures for consumers looking to buy fashion items online. However, this does not negate the positives of online shopping, such as the availability it gives for customers who do not have physical access to brick and mortar stores, driving them to switch to online shopping for their fashion products.

4.2.2 Availability and Convenience of Online Stores:

Importantly, the participants emphasize the increased convenience and availability associated with online platforms, which have become essential considerations influencing consumers to shift their purchasing preferences. Some consumer's main motives to shop online is to have an efficient shopping experience in which they can do their daily tasks with no physical disruptions that hinder them to accomplish other objectives or goals. Moreover, convenience can be in relation to availability and accessibility. Participants appreciate the advantage of being accessible to brands, stores, and products which are not in existing places where they work or reside. In turn, they find that the flexibility online shopping and website availability provide are much more advantageous in shaping

consumer decisions in the realm of online shopping. This finding is supported by the insights from the participants quoted below:

“I shop online because I’m a working professional, and I don’t get time to choose and get that hard work done. So, whenever I have to, especially with your clothes or bags or whatever accessories, it’s online.” - Participant 3, Female, 27 years old.

Participant 3’s primary motivation for online shopping revolves around the desire to save time and effort, seeking an efficient shopping experience that seamlessly integrates with their daily routines. This emphasis on efficiency is particularly noteworthy, as participants express a preference for online platforms that eliminate physical disruptions and enable them to accomplish diverse objectives and goals concurrently. Other participants expressed the same beliefs:

“I think online is more accessible.” - Participant 1, Female, 21 years old.

“Just quick, it saves time.” - Participant 9, Male, 28 years old.

Participant 8 provides tangible examples of the convenience offered by online shopping, emphasizing the elimination of additional steps in the shopping process:

“I don’t have to leave the house. And it would save bus fares, parking if you have a car, you know, like going to the shops. It could be the convenience of it as well. That’s the reason why someone would do online shopping.” - Participant 8, Female, 27 years old.

This demonstrates that the primary reason for online buying in today’s world is how effortlessly or "quickly" a consumer may meet their needs while purchasing online fashion goods. Furthermore, customers value the necessity of making their journeys more compact rather than adding multiple steps to perform a single activity, especially now that the internet is so accessible to people all over the world.

4.2.3 Limited Local Fashion Stores:

However, this preference for online convenience is not merely a matter of personal preference; it is often necessitated by the limitations of local availability in New Zealand, as articulated by Participant 7. While expressing a preference for in-store shopping, the participant highlights the key advantage of online shopping—providing access to products not locally available.

“Well, I prefer in-store shopping, but an advantage or a reason why I shop online is because it gives me access to things I can’t find locally.” - Participant 7, Female, 22 years old.

This brings to light the larger challenge of limited local availability of fashion products in New Zealand, which compels consumers to turn to online platforms for their fashion apparel needs. However there are counterintuitive opinions showcasing that although foreign brands have more appeal to most young New Zealand shoppers, it may be deemed to be unaffordable for some. But in the context of this study, the participants believe the lack of accessibility to fashion brands in New Zealand is a demotivating factor to shop locally and therefore are more willing to shop online for fashion apparel to fulfil their desires:

“So, the reason why I don’t shop traditionally is because of the New Zealand fashion wardrobe.” “New Zealand has a very limited quantity of variation in the fashion sense. So, there’s only one Zara store in the entire New Zealand. Especially in men’s fashion, you’re limited to a certain level of shops, or most local designers are more oriented toward females, whereas the male is more Australian, Asian designers.” - Participant 6, Male, 18.

Participant 6 raises an issue regarding the fashion attire in New Zealand, stating that it falls short of global standards in terms of fashion items. They shed light on the fact that consumers in the local area desire to manifest themselves through fashion but are unable to do so in person due to the limited availability of fashion options; consequently, they tend to purchase fashion-related products online.

4.2.4 Avoidance of In-Person Interactions

Certain individuals prefer to sidestep potential challenges in physical stores, such as interactions with salespeople, by seeking most product information online. This inclination may arise from a desire to evade unwelcome persuasion or manipulation from sales staff, as well as the frustration of being overlooked or treated with suspicion. Consequently, the following participants share insights into why they consistently prefer online shopping for their fashion apparel, citing these factors as reasons why traditional in-store experiences are not their preferred option:

“Also, when I go in, I don’t want to communicate (with staff or people). Sometimes, you don’t want to go in and be approached by someone randomly” - Participant 12, Male, 24 years old.

“I hate going in-store...Salespeople.” – Participant 13, Male, 23 years old.

“Less friction...You also have to deal with people as well.” – Participant 10, Male, 25 years old.

These individuals articulate their aversion towards engaging in face-to-face interactions with sales personnel within the store environment. This may be a significant indicator for consumers favouring

online fashion buying, adding into account factors such as availability and the impact of COVID-19 on shopping behaviours. A new landscape is developing for the fashion sector, in which convenience has supplanted experience in the clothing purchasing process. However, this is not to dismiss the possibility that an online purchasing platform could also offer a fulfilling experience.

In essence, these participant narratives weave a story of shifting consumer behaviours, driven by a confluence of factors—financial strain, the allure of convenience, limited local availability, and a desire to circumvent in-store challenges. The preference for online shopping emerges not only as a practical solution but as a refined response to the evolving landscape of fashion retail in New Zealand.

4.3 Immersing with Augmented Reality

4.3.1 Visualization and Personalization

Having AR technology in the online shopping application for fashion apparel helps consumers visualize information that is not generally available in online websites. Providing an opportunity for consumers to see themselves in the apparel rather than sticking to their imagination and gambling on whether or not it will deliver the same results. The most important component was determining if it tailored their avatar, which included their proportions, features, and complexion. This was highlighted as a key motivator when searching for fashion apparel on the AR application. Note the insights below:

“It gave me a proper look at how it would look like being on me, like visualizing it. Especially sizing, that will be a great help because I haven’t had that opportunity before.” – Participant 2, Female, 23 years old.

“It motivated me in terms of seeing the visual appearance of the clothing item. Because, again, in online shopping, you’re limited to only certain angles of the item, whereas the AR showed me the whole 360.” - Participant 6, Male, 18 years old.

Additionally, visualization is not only for oneself but for consumers who are wanting to buy gifts for others which brings practical insights in online-gift-giving scenarios. Consumers are able to visualize how apparel they purchase online would look on others. It provides a way to ensure accuracy in sizing without the need of physical presence due to the virtual representations the app provided. With this feature, it’s created a more personalized experience for the buyer, in which they are able to mould their experiences into however they please, for a satisfying shopping journey. Participant 8 provided a brief but valuable insight on this matter:

“Like the avatar, where you can actually have yourself because if you’re giving a gift, for example, and you want to save on shipping, you will order online. So, you can actually ask that person, can you measure yourself? It’s going to be a hassle on that person’s end, but it will be helpful for you because you know exactly what size the person is.” - Participant 8, Female, 27 years old.

The personalization aspect of AR can manifest in various ways, such as recommending products based on past purchases, displaying content that aligns with a user’s style preferences, or offering customization options like creating virtual avatars to try on clothing. The benefits of personalization is to enhance user satisfaction, engagement, and overall customer experience by making the interactions more individualized and meaningful (McLean & Wilson, 2019). Participants 2 and 5 expressed how having a personalized experience increased their engagement to search for more products and create looks that were highly attuned to their needs and desires.

“Well, it made it more personal. I wanted to look around more, especially when I found out that I could make myself. I really wanted to dress myself and like everything that caught my eye and make outfits. That was pretty cool as well.” - Participant 2, Female, 23 years old.

“The highly personalized aspect. I thought that was really cool.” - Participant 5, Female, 25 years old.

The integration of AR technology into online fashion shopping applications has a significant impact on consumer motivations, particularly in the realms of visualization and personalization. AR facilitates a unique visual experience for consumers to see how apparel looks on themselves, while addressing challenges related to sizing and uncertainty in online purchases. Personalization, especially in tailoring avatars to individual proportions, features, and complexion, emerges as a crucial motivator for users in their fashion exploration.

Participants valued the ability of AR to provide a 360-degree view of clothing items, offering an imagery of what an item would look like on their bodies compared to traditional online shopping platforms. The importance of visualization extends beyond personal use, benefiting consumers purchasing gifts for others. Virtual representations enable accurate sizing assessments without the physical presence of the recipient, enhancing the online gift-giving experience.

AR personalization in online fashion encompasses a variety of characteristics, including product suggestions, style alignment, and customization options, all of which lead to increased user happiness, engagement, and overall a positive consumer experience. Participants above have highlighted how the

personalized experience with AR encourages them to explore more products, create personalized looks, and engage more deeply with the online fashion platform.

4.3.2 Envisioning “The Look”

Participants’ experiences emphasized that AR has potential to provide an image of yourself like no other online shopping platform, encouraging confidence in their purchases and efficiency in the decision-making process. Participant 1 expresses this notion below:

“Well, the other apps are way less like I’m not able to use my imagination a lot more, and like, yeah, you can imagine certain things on you, but it doesn’t end up looking the way it does and I get that this app isn’t accurate like 100% accurate either. But it gives you a gist of what the item will look like. It helps in purchasing the items of clothing that you want. Because you can envision the colour palettes, you can envision different things and like because your body measurements are also there. You can see how it will fit” - Participant 1, Female, 21 years old.

The participant shines light upon being able to use their imagination and become more creative with the items of clothing showcased on the app. Despite not being able to physically touch the item, participants still expressed they were able to get a feel for it, which removes the barrier of feeling disconnected when shopping online for clothes. Other participants have also shared similar experiences and their insights below:

“Before, you can’t really see what it would look like on you or, you know, like, and what angle, so with online shopping before, you can’t do that. I can’t see or feel what it would be like. You can get a feel for it. You see what you look like, and that’s pretty good.” - Participant 12, Male, 24 years old.

“Yeah. It helps when you visually see it, and that’s all I want. That’s all we all want when shopping; we want to know how something would look visually. I want to make sure it looks good; it might not, but this would suit it, like that bag goes with that outfit, etc., but now I can think less. I don’t want to; I can just put it in there.” - Participant 3, Female, 27 years old.

The above participants outlined the significance of visual representation in the shopping experience, stipulating a shared desire among consumers. It is stated that visual cues play a crucial role in determining aesthetic appeal and compatibility to ensure an outfit looks cohesive (McCormick & Livett, 2012).

Participants draw upon the idea that visually assessing items leads to quicker decision-making and lessens the cognitive load associated with imagining how pieces might come together. It contributes to increased consumer trust when buying fashion items online. In such a scenario, it makes customers feel more at ease when finalizing their buy, assuring a positive shopping experience and lowering the number of returns for online fashion purchasing. This idea is enforced by participants who believe their experience with AR technology may assist in alleviating trust concerns that are now prevalent due to incorrect fitting, colour, and so on:

“The number one issue with online shopping, in general, is trust. People don’t have trust online. Let’s face it. I know some people, especially, would not see a grandma or a mom and say like oh, I would buy online unless they know who the brand is, you know. And so, if you’re able to solve the trust issue, the app has the potential to solve that issue. Everything follows.”
- Participant 8, Female, 27 years old.

The ability to see how a product looks in a virtual space contributes to a more comprehensive and meaningful online shopping experience. The following insight suggests that the use of AR brings a human touch to the online shopping process. Instead of a static display, users can visualize how a clothing item fits on a virtual human form, fostering a sense of personalization. This resonates with intrinsic motivations as it aligns with the human desire for connection and relatability in the shopping experience.

“It’s really valuable. There’s something about just seeing it on, like a torso, as opposed to hanging in a store, which adds a human element to it, which is effective.” - Participant 5, Female, 25 years old.

The effectiveness of AR mentioned by the participant likely refers to the impact of visualizing the product in a more realistic context. This aligns with the intrinsic motivation for a more engaging and authentic shopping experience.

Individuals with visual sensitivity have an intuitive understanding of how clothing items will appear on them (Hilken et al., 2017). For visually-oriented individuals like Participant 7, AR could serve as a tool to enhance and personalize their already well-developed fashion decision-making process. However, AR could also assist individuals who may not possess the same level of visual acuity or understanding of fashion, serving as a support mechanism to envision how clothing items will look on them. It implies that the technology aids in transforming imaginative visualization into a more tangible and realistic experience.

“I think maybe for me, I am quite visual. I have a good understanding of my body, what I wear, and how things will look on me. So, I can understand how it would help someone who has less of an idea and isn’t as visual and can imagine those sorts of things.” - Participant 7, Female, 22 years old.

Visual representation afforded by AR has a persuasive impact. Seeing what a garment looks like on a body through AR can be a convincing factor for the participant to purchase the item, emphasizing the technology’s ability to influence decision-making.

“I guess that gives you that convincing power some, um, that maybe I should try it because I have those envisions actually see what it looks like on my body” - Participant 8, Female, 27 years old.

Participants perceive AR as a significant source of motivation. The technology goes beyond being merely helpful or informative; it actively contributes to an increased level of motivation in the online fashion shopping experience when evaluating products ready to pursue their purchase.

“It’s very, very motivating, like it increases customer motivation to buy, especially for people like me.” - Participant 3, Female, 27 years old.

One of the key aspects of the AR technology included outfit planning. Outfit planning is a concept of a deliberate and thoughtful process of selecting and coordinating clothing items to create a cohesive and aesthetically pleasing outfit (Wong et al., 2009). It involves considering various elements such as personal preference, style, colour and brands (Chowdhury & Akter, 2018). With AR embedded in the online shopping app, consumers are able to try out different clothing items to picture how it comes together. It creates value where it provokes enjoyment and positive emotions when comparing outfits. This can be an intrinsic motivator as it involves personal expression, creativity, and individual style preferences. Example below:

“It was really interesting that you could layer up, and it makes total sense. I had a lot of fun with pairing outfits.” - Participant 5, Female, 25 years old.

Consumers are able to trial a range of items efficiently through AR. This provides the option to pick and choose specific items and place it into the fitting room similarly to a physical shopping experience. Customers can put items back or bring in new pieces which invokes a creative process. It is an expression of individual taste, giving an intrinsic motive to buyers. Few participants experienced this while engaging with the app.

“It was being able to go back and forth through it. It’s easier to pair things, especially when they’re from different sites because I noticed that a lot of things were from different sources.”

- Participant 7, Female, 22 years old.

“It allows you to mix and match, and then you could choose that look, and then you could go to another look.” - Participant 12, Male, 24 years old.

“There’s a list that you can keep in the fitting room, you know, and then you can mix and choose, so that was helpful.” - Participant 3, Female, 27 years old.

Participant 8’s emphasis on the ability to mix and match outfits from different brands underlines a desire for fashion expression. This suggests that AR platforms are perceived as tools that transcend traditional brand boundaries, offering users the freedom to curate looks that reflect their unique style preferences. Therefore, consumers increasingly prioritize individual expression over adherence to specific brand identities.

“It’s the option of having different brands mix and match together.” - Participant 8, Female, 27 years old.

These insights help answer Sub RQ2 in finding intrinsic consumer motivators in the evaluation stage using the AR application. The supporting role of AR is to help individuals that rely on visual cues to comprehend product information swiftly. As well as, creating a more effortless journey by skipping traditional steps in online shopping today.

4.3.3 Style and Aesthetics

To dig deeper with the intrinsic motivations behind participants shopping online, they were questioned on what appeals to them when searching for fashion items on the AR application. This brought insights to the consumers interest in style and aesthetics.

In the following quote, the participant expresses that their appeal in using AR for online fashion shopping was primarily related to "how the clothes look and how they fit on the avatar." This indicates a strong focus on the style (visual design elements, patterns, etc.) and aesthetics (visual appeal) of the clothing items when viewing their virtual avatar. The user’s engagement with the AR is driven by the desire to personalize and assess these visual aspects during the browsing stage (searching for products) of the consumer decision-making process.

“Colours, how it looks on the avatar, like where and how it fits, whether it’s full-length or mid-length, the patterns, etc. I have a bigger body, so it was nice to see that it (apparel) expands a little when you put it on things which are realistic, and the smaller body patterns

will stay the same. It's mainly how the clothes look and how they fit on the avatar. Those are the things that drew me in." - Participant 2, Female, 23 years old.

Participant 1 vividly captures the experiential aspect of mentally envisioning and assessing one's appearance in a given outfit. Subsequently, emphasized the immediacy of the visualization process, noting that upon trialling clothing items, they could envision themselves. Participant 1 further extended the concept by highlighting the multifaceted considerations during this visualization process. The mention of assessing whether the clothing fits the individual's "vibe", aura, and considerations of colours that complement their hair and skin tones adds depth to the visualization. It reflects a holistic approach to styling, where the individual not only envisions the visual appeal of the outfit but also considers how it aligns with their personal identity, mood, and physical attributes.

"When I put something on, I instantly see because you can see yourself. I can now know whether it fits me or fits my vibe because certain items of clothing I think don't look nice on me, even just like my vibe and my aura, but like colours and how they fit, does it compliment my hair, my skin tone?" - Participant 1, Female, 21 years old.

Participant 3 draws attention to the importance of a well-executed product showcase in facilitating the user's ability to envision and assess clothing items. The participant's mention of the product showcase being good and looking "very real" accentuates the visual authenticity and realism that contribute to effective style visualization. They displayed confidence in their decision-making process, indicating that the quality of the showcase influenced their willingness to add items to the cart. The quote also introduces the idea of balance in showcasing – not too much, not too little, but just the perfect amount of information. This balance is crucial for allowing users to engage in the visualization process without being overwhelmed. The participant's preference for a moderate amount of information aligns with the notion that effective visualization involves a balanced and informative representation of the clothing items. Further, this enables users to make informed decisions based on visual appeal and comfort.

"The product showcase was good. If I put them into even the fitting, then it still looks really natural. Looks very real. And that gives me the confidence to say, yes, I will put that into my cart. Oh, this looks comfortable. You know, like, I'm just going to put it in my cart. Because even the showcasing of the app is very important, it shouldn't be too much. It shouldn't be too less. You know, it should be just the perfect amount. And that was what it is. I don't want to read too much information. I don't want to lead to less information. Just the right amount of it helps." - Participant 3, Female, 27 years old.

The participant below highlights the combination of two key elements: firstly, finding clothes that align with their personal taste and preferences, and secondly, visually assessing how those clothes would appear on someone with a similar physique. This dual process of liking the clothes and envisioning them on a similar body type reflects a comprehensive approach to style visualization. It implies that the participant relies not only on their individual preferences but also on the ability to mentally project the clothing's aesthetic appeal onto a relatable and comparable body form. The quote signifies the importance of the visualization aspect in the participant's journey of selecting and relating with fashion items, reinforcing that style visualization is a pivotal factor in the online fashion shopping experience.

“It was a combination of finding the clothes that I liked and then seeing how they would look on someone similar to me.” - Participant 2, Female, 23 years old.

4.4 Reimagining Social Ideals with AR

4.4.1 Body Positivity

Body positivity is the acceptance of our bodies regardless of size, shape, skin tone, gender, or physical ability. The movement is sometimes seen implicitly as an endeavour to promote variation in body aesthetics in order to broaden the world's restrictive beauty standards beyond their current confines (Leboeuf, 2019). In essence, body image/positivity in the context of AR technology aims to leverage virtual experiences to celebrate diversity and empower users by providing a more authentic and affirming representation of their bodies in the online fashion shopping space.

The participant below expresses appreciation for AR's capability to create an avatar that reflects their own body perception, specifically mentioning that they could customize their own avatar and tailor outfits accordingly. The emphasis on making the avatar reflective of their perceived body size highlights a positive and empowering experience. This aligns with the goal of promoting a positive body image by providing a tool (AR in this case) that permits users, particularly those with bigger sizes, to visualize and value how fashion items complement their unique body shapes. The quote reflects how AR can contribute to body positivity by offering a more inclusive and personalized virtual try-on experience.

“What I liked most about it was that I could make my avatar, and then I could fit it into what I perceive my body to be and put clothes on that body, and it looked realistic, like how it would look on me. That was innovative.” - Participant 2, Female, 23 years old.

Participant 4 shows regard for AR's move towards body inclusivity with the presence of avatars representing different body sizes. They acknowledge that the general audience is not a singular body type and reinforces that all shapes and sizes are valued. AR enhanced avatars are a departure from the traditional portrayal of fashion models and beauty standards. Featuring a diverse range of body sizes, contributes to a more authentic and relatable virtual try-on experience for users, positively impacting their decision to purchase:

“The models provide different body sizes. That’s what’s helpful. Not like, you know, everybody is super skinny, and that would not be a true reflection of how people are. That’s quite nice.” - Participant 4, Female, 26 years old.

Participant 12's statement describes a common frustration towards the limited fashion options available for younger individuals with bigger body sizes. The participant expresses the perception that clothing designed for bigger individuals tends to cater more to middle-aged men, and there's a lack of fashionable options for bigger kids and young adults. This sentiment highlights a gap in the inclusivity and diversity of fashion offerings. Addressing this concern involves leveraging AR features to provide a platform where individuals of all body sizes can virtually try on and explore a broader range of stylish clothes. AR has the potential to contribute to a more inclusive and diverse representation of fashion choices, grants individuals with bigger body sizes, including teenagers and young adults, to access a variety of trendy and age-appropriate clothing options in the virtual realm.

“Because when it comes to bigger people’s clothes, it’s more like it’s made for middle-aged men. Whereas bigger kids that are bigger, teenagers, adults, like young adults, they don’t get the luxury of, you know, wearing things that you’d see a kid who’s probably like, great, great size, everything like wearing.” - Participant 12, Male, 24 years old.

4.4.2 Diversity and Inclusivity

Diversity and inclusivity in AR technology involve developing virtual try-on experiences that showcase a rich variety of clothing options suitable for different cultural backgrounds and gender expressions. It also encompasses features that allow users to customize avatars or models to reflect their unique characteristics, ensuring a more personalized and relatable shopping experience (Zak, 2020). The purpose is to create AR-driven platforms that celebrate the diversity of users, reflecting real-world identities and personalities in the online fashion shopping space.

To encourage diverse range of users to engage in the online fashion shopping experience and purchase items, inclusivity is seen as a progressive move. The participant below states that minimising the current visual ambiguity and relatability in online fashion is a step forward to a positive shopping

experience. The shopping process becomes more considerate and tailored to individual preferences which in turn can result in consumers finding value in the purchase.

“But in saying that, it’s a step forward in giving people a better way to shop. Because it’s much more inclusive, it’s a better move than not having the ability to view yourself in the clothes because you’re not wasting your money.” - Participant 1, Female, 21 years old.

Participant 5 expresses a sense of feeling especially included through the use of AR and that their reality and experiences are being taken into account. This provides a contrasting view to today’s online shopping platforms where individuals are forced to relate to static images and models. By being able to virtually try on clothes and seeing oneself in garments, users experience a shift from a passive, observer role to an active and valued participant in the shopping process:

“I mean, you feel so much more included. Your perspective and experiences are being valued. Yeah, as opposed to seeing yourself as relative to whoever’s wearing the garment on the page.” - Participant 5, Female, 25 years old.

The flexibility to explore and try on clothing items from different gender catalogues promotes an inclusive fashion environment, breaking away from the traditional gender representation in online shopping experiences. It contributes to creating a safe space in online fashion that welcomes all gender identities and expressions, encouraging the concept of gender equality mentioned by the participants below:

“I loved that I could also put men’s clothes on my body because I tend to wear baggy clothes. So, the fact that it’s not limited to gender shows that anyone can use this app.” – Participant 1, Female, 21 years old.

“But yeah, there was a unisex element where you get to experiment with men’s clothes. Yeah, some of the feminine mannequins, you could put feminine clothes on some of the male mannequins, and so forth.” - Participant 5, Female, 25 years old.

Participant 2 recognized that personalization in fashion created an inclusive space. Their response conveyed that fashion is a deeply personal experience that should be accessible and enjoyable for all genders. The AR shopping included the option to trial both women’s and men’s apparel and overall it provided an equitable consumer experience. This implies that in the decision-making process, product choices that navigate away from gender norms can lead to higher product engagement and purchasing intentions.

“It’s a really good idea, and it will encourage not just girls but even men and other genders. So, it’s fantastic. I love that you can personalize it, and that’s why it should be allowed in the fashion industry because fashion is so personal.” - Participant 2, Female, 23 years old.

The need for inclusivity in the fashion space derives from the ever evolving landscape of gender identities and individualism. The participant believed in simplifying the online shopping process for diverse genders. Suggesting that AR enhanced shopping platforms should provide androgynous styles that reduce the challenges that many individuals’ identities encounter.

“It’s not just about men and women, you know, all the genders we have now. Everyone’s body is changing, and everyone has an impact. So it makes it easier. Just make life easier. If you’re investing so much in things, make it worth it.” - Participant 3, Female, 27 years old.

4.4.3 Individual Empowerment

When consumers felt in control, confident, and independent during their buying journey, they demonstrated "individual empowerment" (Huang et al., 2019). The AR technology empowered individuals by giving them autonomy to express and dictate their own unique style preferences. The level of freedom in customising the avatar and clothing contributed to a heightened sense of customer confidence. These quotes from the participants suggested that AR technology, through its personalization features, empowered users during the decision-making process.

“Empowered. Yeah, yeah, it just gives me a lot of confidence.” - Participant 4, Female, 26 years old.

“Being able to dictate how you get to try on clothes and how you’re seen, there’s a level of freedom to which you’re not necessarily granted.” - Participant 5, Female, 25 years old.

4.4.4 Privacy and Data Security

Participant 1 expressed a sense of unease, describing the act of masking one’s face onto a character in an app as "quite scary." This apprehension stems from a perceived advanced capability of AR that raises questions about the potential consequences and uses of the technology. The mention of not knowing "what else can come from that" raises concerns about the future implications and applications of advanced AR technologies, emphasizing the need for careful consideration of data security and privacy safeguards in AR-enhanced online fashion shopping experience.

“It’s quite scary to be able to mask your face onto a whole, like a character almost in an app. It just makes me think that we humans are crazy advanced in these things, and you don’t know what else can come from that.” - Participant 1, Female, 21 years old.

Participant 10 articulates a hesitation rooted in trusting AR, expressing concern about the reliability of facial scanning and recognition software employed by various companies. The participant’s scepticism about trusting companies in handling personal data, especially facial data, exemplifies the fear associated with data security. The mention of a "final trust barrier" emphasizes the critical role trust plays in the decision-making process regarding AR applications. Users, like the participant, may refrain from actively engaging with AR features due to uncertainties about the thoroughness of data scanning and the overall security measures implemented by companies.

“There’s, yet again, that whole trust thing with AR. I know Apple has good features like facial scanning and facial recognition, but not everything is Apple. How can I trust that the company has actually scanned everything properly? So, there’s that final trust barrier where I don’t necessarily try?” - Participant 10, Male, 25 years old.

This quote brings weight to the importance of building and communicating robust data security practices to address user apprehensions and establish trust, especially when dealing with sensitive personal information in AR-enhanced online fashion shopping experiences.

4.5 Balancing Dual Realities

4.5.1 Combination of Both the Real and Virtual World

AR is well-placed for bridging the gap between the real and virtual worlds in the context of online fashion shopping (Zhang & Wang, 2023). Participants expressed a favourable attitude towards AR as it blends the real and virtual world together to improve their online shopping experience. Participant 1 articulated that the mix of the realities would be an new experience that could motivate consumers to adopt AR in the online fashion world.

“But with this, I found that it was almost equal amounts of motivation in terms of in-person shopping and online because it was so new to me, and it was like just the mix of it. Yeah, it was so unique and such a different concept. The idea of being able to see myself in this clothing was so new to me that it was motivational, almost like I would like to keep doing it” - Participant 1, Female, 21 years old.

AR features that resemble real-life experiences can contribute to enhancing consumer confidence in online shopping. This aligns with the exploration of how AR influences consumer motivation. The

participant below sees the potential of AR to recreate real-world aspects without the challenges of face-to-face interaction.

“It would be the best of both worlds. So if online shopping could, you know, incorporate this app and have all those fun features and resemble what happens in real life without having to deal with real people? It would make me feel a lot more confident in selecting clothes by buying stuff straight from the internet.” - Participant 4, Female, 26 years old.

Participant 7 provides insight into how AR addresses a limitation in traditional online shopping—specifically, the lack of a trying-on experience. AR contributes to a more immersive and realistic shopping experience as it brings in the element of a live fitting room. Their experience suggests AR adds value to the shopping process, making it more engaging and akin to in-store experiences. This enhancement is likely to influence consumer motivations positively.

“Well, you take out that element of trying because when you go onto a regular website, you’re just putting it in your basket. You go back and review your shopping cart, whatever. But there’s like this extra element that emulates in-store shopping, which I personally prefer.” - Participant 7, Female, 22 years old.

4.5.2 Engagement and Interaction

The dynamic exchange between the user and the AR application is referred to as an interaction (Ghazwani & Smith, 2020). Participant 1 displayed an eagerness to use the AR app more frequently than other applications, indicating a higher degree of engagement. The app’s capacity to successfully captivate users, promotes long-term interest. AR enhanced shopping platforms offers experiential value, distinguishing it from traditional online shopping.

“The app made me want to use it more. I usually get bored with other apps. It kept my attention in check, and I was so intrigued by everything in the app.” - Participant 1, Female, 21 years old.

Participant 3 regularly toyed with the AR application in their leisure time displaying a high level of engagement and involvement. This advocated for the binding appeal of AR platforms in contrast to conventional online shopping.

“Almost every day when I was free, I would see that app, and I was going to go play around before I met up with her. I would like to see what more information I could get from this app.” - Participant 3, Female, 27 years old.

The interactive environment of the AR shopping platform invoked strong curiosity and exploration in users, expressed by the participant below.

“It almost felt like a creative exercise, like a creation. You don’t often think of your outfit in that way. It’s like a sculpture of, like, you have this model, and then you put the clothes on it. When you’re looking at normal online shopping, you don’t really think of it that way.” - Participant 9, Male, 28 years old.

The analogy between the AR experience and a "creative exercise" indicates a transformative quality. Participant 9 regarded the process of browsing virtual ensembles as a creative and artistic endeavour, stating that the clothing selection is an imaginative experience. The final remark implies a shift from a transactional buying experience to a captivating journey. The AR experience is described by participants as a novel method to think about visual combinations; similar to sculpting artwork.

4.5.3 Gamification

Having a virtual-try on experience sparked a positive and curious response in interacting with the online shopping application. Participant 4 expressed how their unique experience evoked a sense of nostalgia and playfulness. The association with game-like setting implies that the interaction was not only functional but recreational, tapping into a sense of creativity and engagement.

“I felt intrigued because it was not something that I had experienced when interacting for so long. It’s one of those dressing-up dolls kind of games.” - Participant 4, Female, 26 years old.

The initial customer expectations surpassed for the virtual try-on as the AR platform ignited an unexpected enjoyment. A surprising element of ‘fun’ came from Participant 5’s interaction with the application. This positive response contributed to the user’s overall satisfaction with the gamification experience.

“It also hit a spot of nostalgia for me in terms of playing dress-up games. With that, it did add an element of fun to it, which I wasn’t expecting to have as much fun with” - Participant 5, Female, 25 years old.

4.5.4 Innovativeness and Novelty

Participant 3 portrayed a clear preference for the AR app over traditional shopping, citing interest in the dynamic potential of the technology. The statement enforces the participant’s ongoing commitment to utilizing the AR app. This qualitative insight accentuates the participant’s perception

of AR as a progressive and promising tool in the realm of online fashion, capturing the essence of the technology's innovativeness.

“Wouldn't say I was given a choice between traditional shopping and this; I would still choose this (AR app), but I would like to keep trying it until I get to that comfortable level. It's not like I will neglect it. But it's something I would consider because it is new. It is interesting, and in aspects of what you can do, it is the possibilities and what better you could do; I'm sure it doesn't stop at this. After a couple of months, it might get a little more up, it might hype its technology, it might hype with more features, so it doesn't stop.” - Participant 3, Female, 27 years old.

A new way of interacting with fashion products, taps into the innate human desire for discovery and novelty. This adds to the participant's sense of personal fulfilment which causes them to actively engage in their shopping journey. Participant 10 reveals the main factor of what differentiates conventional online shopping with AR online shopping for fashion apparel.

“With the information available, that was more like, traditionally, I'd look at an item and then make a purchasing decision. Whereas this was more like you can actually view an item. That change in flow was an interesting difference.” - Participant 10, Male, 25 years old.

The novelty of the app's features and capabilities caught users attention and curiosity which successively created a need to seek additional products. Participant 3 acknowledged that they are unaware of current trends in the market due to being in a older age group. They found the use of AR interesting, especially because it allowed them to visualize fashion items on themselves rather than on a model. The departure from the conventional viewing method added to the novelty of the experience.

“First of all, I like to work out with a new app. So, I was very eager to go through the app, like what's happening, so I was taking general notes like what's what, what features are there? And then I'm like, oh, you can do this. It's pretty intriguing. I'm a little older, and I have not seen such things. And I may not be aware of everything either, like there are things I don't know in the market.” - Participant 3, Female, 27 years old.

The innovativeness of the AR captured consumer interest. However, the novelty overshadows the purpose of AR in online fashion. The limitation of novelty is that it prevents the serious considerations of users making an actual purchase. This is due to consumers engaging with AR features primarily for the excitement, rather than with a definitive intention to purchase. The idea corresponds with the trend of consumers finding joy in exploring new technologies without and immediate commitment to buy. This is outlined by the participants below.

“I really liked the novelty. because the novelty aspect of this was more of the priority as opposed to seriously considering buying something.” - Participant 5, Female, 25 years old.

“It was interesting. It’s not something I’ve seen before. You don’t normally see it in yourself. You see it on a model. So that’s like one big thing.” - Participant 7, Female, 22 years old.

“I was hyped (excited). I was hyped because it was something new.” - Participant 12, Male, 24 years old.

4.6 AR User-Friendliness

4.6.1 AR Usability

Participant 1’s perception of AR being efficient to use suggests a positive user experience. The participant overcame the assumption that AR might be complicated as the system’s design and interface were intuitive, making it accessible to users without extensive technical knowledge.

“The AR wasn’t hard to use either; you would think it would be complicated, but it wasn’t. It’s daunting in the beginning, but it’s a lot easier to use in general.” - Participant 1, Female, 21 years old.

The inclusion of a virtual closet feature indicates a user-friendly organizational aspect, according to Participant 2. Allowing online buyers to add items to their virtual closet in a streamlined process, creates a structured path for them to manage their clothing items. It resembles to real-life by giving users the ability to quickly change in and out of items while shopping. This suggests that the AR experience successfully mirrors the fluidity of a physical dressing room.

“It made it easier because you could switch the items quickly. There wasn’t much delay, or you add it to your closet and just put it on. It’s as if it’s in real life, like you can quickly change in and out.” - Participant 2, Female, 23 years old.

4.6.2 Graphical Issues

During the browsing stage participants had difficulty with the graphical imaging of the avatar wearing clothes. The participant pointed out a notable discrepancy between the 2D and 3D views of clothing items, specifically citing an inconsistency in the representation of pants’ length. The participant characterized it as "strange" which indicates a lack of confidence in the accuracy of the product offerings. Graphical issues, such as misalignment and inconsistencies in the viewing angles, can

impact the user's perception and confidence during the browsing stage. These challenges and limitations need to be addressed for a more reliable and seamless AR-enhanced shopping experience.

“But I noticed that the fit is completely different between 2D and 3D views. When I looked at pants in the 2D view, they came right down to the shoes, and sometimes the shoes just flipped over. Then you go into the 3D view, and they're above the ankle. I'm like, that's a little strange and inconsistent, which doesn't give me much confidence and the right offering.” - Participant 10, Male, 25 years old.

Participant 4 highlighted the graphical errors of the avatar representation which can lead to a demotivating experience. The participant noted that the avatar did not provide a true reflection of themselves or the intended person. This discrepancy between the avatar and the real person raises concerns about the accuracy and fidelity of the virtual representation. The participant's statement emphasizes the importance of achieving an accurate and realistic avatar representation to ensure that users can make informed decisions about purchasing online items. Addressing these graphical concerns is crucial for optimizing the effectiveness of AR technology in delivering an authentic and reliable virtual try-on experience.

“The avatar is not a true reflection of me or the person.” - Participant 4, Female, 26 years old.

Participant 6 enforces the importance of visual perception in evaluating clothing items in online shopping. Further noting, that the AR presentation provides a different view compared to traditional fashion models. Although the AR product presentation provides a different perspective, it may not always be favourable, potentially leading to a perception that is worse than that of traditional online models. Together, these findings urge the critical role of technical appearance in AR, particularly in the context of visual fidelity and accuracy. The impact of graphical issues on user perception during the online fashion browsing stage is crucial to the decision-making process.

“The technical presentation of the clothes is definitely a huge factor because it's a visual perception. Demonstrating it in an AR way has already shown you a different view. Whereas if it was a traditional model, the view was already made to look good, whereas AR, for me, was worse.” - Participant 6, Male, 18 years old.

4.6.3 Slowness and Lag

The participants describe the AR experience as "laggy," meaning a noticeable delay or unresponsiveness in the application's performance. Slowness and lag can negatively impact user experience. The dissatisfaction with the delays became a significant factor that turned users away

from engaging with the AR application. In this instance, the real-time responsiveness was crucial for an effective and enjoyable AR-enhanced online fashion shopping experience. Optimizing AR technology for prompt interactions can enhance the overall quality of the virtual try-on experience. The participants connected these technical issues to users trust, indicating that a seamless, polished experience contributes to trust in the functionality and reliability of the technology.

“It was laggy. It was really laggy, which turned me off using it. Yeah. That was really the main thing that I noticed.” - Participant 11, Male, 29 years old.

“But the main thing for me was that there was always a little loading delay. There was always a jank animation as the item flopped on. So, it was easy, but it felt unpolished. That fits in with that trust aspect as well.” - Participant 10, Male, 25 years old.

Participant 5 mentioned that the phone was unable to meet the demands of the app and exited out of the application abruptly. The AR application may be experiencing performance bugs however it could be requiring advanced devices with a larger capacity. This could provide a hinderance and disruption to the user experience depending on which device they use to access the AR application.

“The app had difficulty with fluidity, and sometimes, it would exit out. The phone felt a little overwhelmed.” - Participant 5, Female, 25 years old.

The slowness of the AR application could adversely affect the user experience, specifically during activities like trying on clothing items, where quick processing is crucial. Participant 3 desires an efficient application performance which highlights the expectation for a more smoother and responsive interaction. The impact of slowness and lag on user satisfaction emphasizes the need for optimizing AR applications for improved efficiency. This in turn will enhance the appeal and practicality of virtual try-ons in the online fashion shopping experience.

“Second, as I told you earlier, I found the app slow. Still, I think that happens when you’re using the AR because it takes a lot of energy in the app or it sucks a lot of, you know, the technicality usage. Still, if it runs more smoothly, and it’s a lot quicker, I think that would help because, for example, you’re trying on something, you’re putting on something, and it’s taking a long time to process, it’s like not helping - you want it to be quick. So, if it runs a little more efficiently and has a little more work done, then it’s a superb idea to invent.” - Participant 3, Female, 27 years old.

4.6.4 Generational Difference of Use

This perspective of Participant 2 provides insights into generational differences in the use of AR for online fashion shopping. The participant suggests that an older age group may have more experience and established shopping habits, possibly being less inclined to shop online. On the other hand, the younger age groups, are more accustomed to online activities, especially given the circumstances of the COVID-19 pandemic.

“I just said that because I would feel like old adults have more experience and would know how to shop for their specific needs because they’ve done it for longer, and also, I think they’re less likely to go online and shop. They might have a busy life, or they just are used to going out more, whereas in the times of COVID, we are used to staying at home. And many of us have grown to become more homebodies. So, that would be why I think it’s for our generation (young adults).” - Participant 2, Female, 23 years old.

Participant 8 reinforces a potential barrier in the use of AR for individuals who may not be as tech-savvy, particularly older generations. The participant’s recognition of the challenge suggests that the ease of use and user-friendly design of AR applications are crucial factors in ensuring broader adoption. Especially, when targeted audiences are less accustomed to technological advancements. Varying levels of technological literacy can impact individuals’ willingness and ability to engage with AR features in online fashion shopping.

“So, for me, I’m a tech-savvy person. I find it difficult to use it, and if I pass this on to my mom or a grandmother who doesn’t use a phone and would like to buy stuff online, you tell her that you can do that with an app.” - Participant 8, Female, 27 years old.

Users in this research find an agreeable value in AR technology, especially for upcoming generations. Younger individuals may find AR applications particularly beneficial in addressing concerns related to body image and self-consciousness. This perspective contributes to understanding why certain generations may be more inclined to use AR in online fashion shopping, as it addresses specific needs and preferences tied to societal and generational trends.

“Overall, it’s good for the people and our generation, like generations in general, like with our society, people are real. They are not insecure, but they’re more conscious about their bodies and themselves. So it’s a good way to have a preconceived idea, like a notion of what you would look like in an item, before you are forced to put your body in it yourself.” - Participant 1, Female, 21 years old.

4.7 Special Incentives

4.7.1 Price Influence

"Price, Discounts, and Special Incentives" are extrinsic motivators in consumer behaviour and decision-making (Khare et al., 2014). External incentives such as affordability, cost-effectiveness, or perceived value for money, impacted the decision-making process of consumers. Participant 10 revealed how they shop for goods, primarily based on price.

"I would have picked on-sale items to see how they looked instead of full-price items. That'd be my primary motivation. I would be looking at a sale to buy items. I don't genuinely try to buy full-price items that much. I'll save a little bit of coin." - Participant 10, Male, 25 years old.

Discounted sales are one of the most important factors for purchasing online. However, this does not preclude the incorporation of AR technologies. The interview responses found that consumers would still be enticed by discounts regardless of AR features. Purchasing intents primarily funnels down to affordability and the value offered by online platforms.

"Well, when I see a discount, I like to gravitate to it immediately because, as a student, money is tight for me. So, when I see a discount in a store, I go there immediately." - Participant 1, Female, 21 years old.

"Of course, I would prefer someone (brands/companies) have discounted items and everything then created into subcategories of what you are looking at." - Participant 3, Female, 27 years old.

"When there's a promotion or incentive, I'm naturally more inclined to try harder to find something that I want compared to just being nothing." - Participant 7, Female, 22 years old.

Nonetheless, price plays a pivotal role in the evaluation stage of the decision-making process for the AR online fashion app. Whilst choosing one item over the other, participants will still opt for the cheapest option first and plan their virtual try-on journey accordingly. However, it is worth mentioning that other variables such as material information and product quality aids in the participant's decision-making process simultaneously.

"If there were similar prices, it would come down to the item's look. If they weren't similar prices, it would come down to if there's a significant price difference. And if they look similar,

and they're like ones like wool and ones like polyester, I might be motivated for the wool if it's like only 30 bucks, 50 bucks more, but if it's like 100 bucks more, maybe not.” - Participant 10, Male, 25 years old.

“Okay, if it's pricing. If the price is high, why is the price high? The quality must be good, or something about it. I would do some research on my side, but ultimately, the price is too high. I'm not going to go for that.” - Participant 12, Male, 24 years old.

Consequently, price is a significant determinant in consumers' purchasing decisions for online fashion items. Thus, extrinsic motivators can have a strong influence on purchasing decisions and alter the likelihood of a customer abandoning their shopping cart. Their statements exemplify the manner in which consumers reach a decision; through comparisons between price and quality, regardless of AR technology in their purchasing encounter.

4.7.2 Sales, Discounts and Promotions

Discounted sales promotions, encourages the temptation to purchase online fashion apparel, indicated by these participants.

“Deals are very tempting to me. I would say, the free rewards and loyalty stuff matters, right? Especially whenever they did the double-digit sales, because you save a lot of money” - Participant 8, Female, 27 years old.

“Yeah, because I'm always super happy when I go on to, like, an online store, and then it pops up like 20% off if you give me your email or stuff like that.” - Participant 4, Female, 26 years old.

The participants' experiences shine light upon how pricing, discounts and special incentives make the user feel more experiential in their evaluation stage.

“If it's really cheap, then it's like giving me an excuse to make mistakes and try on things you know don't fit me. Then there isn't too much of a cost attached to it, which would make me braver and more open to trying new things.” - Participant 4, Female, 26 years old.

Lowered prices reduced the perceived risk of making mistakes in their decision to purchase. Participants could experiment with different items without being concerned about the financial consequences. Thus, influencing the participants psychological response by encouraging a more adventurous and open-minded approach to trying out new fashion items. The reduced financial risk promoted a willingness to step out of one's comfort zone.

“I will try more variety because I would try something I wouldn’t try, like taking a risk. Every item of clothing is an amount of money spent. I might try a risk on something different.” - Participant 9, Male, 28 years old.

“I would become magically more open-minded to trying different things if they had discounts attached.” - Participant 5, Female, 25 years old.

Participant 5 explains buying clothing items is an indulgence in today’s world rather than a necessity. Therefore, when lower discounted prices are offered in the online market it alleviates consumer guilt and justifies their spending.

“In terms of incentives, buying clothes feels like more of an indulgence. Therefore, having incentives alleviates the guilt of how I feel about shopping for things that aren’t necessarily deemed a necessity.” - Participant 5, Female, 25 years old.

During the purchasing stages, most consumers will be at the check-out ready to purchase items in their cart. At that stage, further incentives or promotional activities will aid their buying decisions for a rewarding and satisfying experience. Participant 12 mentions another app, which places additional discounts at the end of the shopping process. The participant’s motivation derived from the app going an extra mile to benefit the shopper. It created a sense of value and a favourable push towards crossing the finish line of purchasing. Incorporating this incentive could benefit finalizing purchases in the AR fashion application.

“Something that another app does, Temu, is that they always check in additional discounts at the end. Right. So, when an app motivates you to be like, okay, cool. You’ve done everything; you’ve put it in your cart. You’re at the end now. Are you actually going to click it? Before you click it? Hold on? How about this? We’ll go further for you. Something like that would motivate me. 100%” - Participant 12, Male, 24 years old.

Free shipping is considered an extrinsic motivator in the purchasing stage of the decision-making process for online shopping. The participants state that the presence of free shipping acts as a decisive factor to make a purchase. This mirrors the extrinsic nature of free shipping as a tangible incentive that directly affects the overall cost and perceived value of the transaction. When engaging with the innovative features and visualizations of AR, the offer of free shipping adds as an external motivation to support their interest into a purchase. AR complements extrinsic motivators, such as free shipping, which shape consumer behaviour and drive purchasing decisions.

“If there is free shipping, then I’ll buy something.” - Participant 13, Male, 23 years old.

“Free shipping, free shipping. Yeah, that would help.” - Participant 4, Female, 26 years old.

In the purchasing stage, final prices at the cart can manipulate consumer choices. Participant 9 outlines a sequential process wherein they first explored and selected items based on fit and aesthetic appeal. In the dynamic landscape of AR-enhanced online fashion shopping, where visual and experiential elements play a crucial role in engagement, the participant’s approach finalizes with an extrinsic motivator (the best price). Price considerations, even in the presence of innovative AR features, continue to be a paramount factor in shaping consumer choices and ultimately, influencing the decision to add items to the cart. Criteria’s such as fit and visual appeal adds to the final decision-making step, which is contingent upon price as an external motivator.

“Then, I’ll go back and check the prices, and then I will select the best fit and best look. Then I’ll see the best price, and with those aligned, I choose them (put it in the cart).” - Participant 9, Male, 28 years old.

4.7.3 Loyalty Programs

Users describe receiving promotional codes through a loyalty program has a subsequent positive influence on their shopping purchases. The added interest in revisiting emails for promotional codes with an element of luck, drives consumer motivations to explore and potentially make a purchase within the AR-enhanced app.

“Yes! Yes! Say I have a usual store that I go to, and I have signed up for it. Sometimes, you get emails that you need to check. You know, sometimes you get promotional codes and then say I’m shopping, and then I remember I am signed up, I have an account. So, I’m going to check my emails for promotion code, but sometimes it gives you the code to put in, so I’m like, do I have it? And if it is there, it’s lucky enough.” - Participant 3, Female, 27 years old.

The participant displayed enthusiasm and anticipation regarding loyalty programmes. Demonstrating the extent to which consumers are motivated by exclusive discounts obtained through brand membership. Consumers take pleasure in being a part of a rewarding relationship tied to a brand than simply receiving a discount. This reward system presents the thrill of participating in an ongoing lottery game where consumers save money by spending more.

4.8 Purchasing Confidence

Participant 8 vividly illustrates how AR technology instills purchase confidence by addressing the challenge of visualizing clothing items in online fashion shopping. They acknowledge the convincing power of AR to envision how a garment looks on their own body. Personalization is identified as a significant asset, as it mitigates the common issue of online clothes appearing different when worn by a model versus on the consumer. The ability of AR to provide a mirroring representation of how the clothing will look on the individual fosters a sense of confidence in the purchasing decision. This can be extended to the confidence in gift-giving, highlighting how AR can assist in visualizing items for others. AR offers an informative and satisfying experience when making fashion purchases online.

“I guess that gives you that convincing power some, that maybe I should try it because I have those envisions to actually see what it looks like on my body. Sometimes, you know, with online shopping, especially with clothes, even if a different model wears them and it seems to be really nice, but when they show it to you, it does not look good. So that’s the personalization, I think, is going to be the asset of that because it can show you personally what you look like, and it will help them also with people they want to give gifts to.” - Participant 8, Female, 27 years old.

A noticeable improvement was portrayed by a participant in their decision-making process, noting that the integration of AR made the purchasing decision "better". The use of AR instilled a higher level of certainty, contrasting with the lingering doubts the participant experienced in traditional online shopping. When visualizing the products in a personalized context, users gained a comprehensive understanding which reduced apprehensions about the product not meeting expectations. In essence, AR acts as a confidence booster, ensuring a more informed decision-making process in the online fashion shopping space.

“But the purchase decision was made better by this thing (AR). I was surer of my purchase as opposed to previously when I would shop; it would still be back on my mind a little bit. Whether it will be what I hope it will be like or there’s something wrong.” - Participant 9, Male, 28 years old.

4.9 Summary

In conclusion, this section of the findings chapter provides a comprehensive exploration of the impact of AR technology on consumer motivations within the online fashion shopping decision-making process. Utilizing qualitative semi-structured interviews and thematic analysis, the study addresses three sub-research questions related to distinct stages of the consumer decision-making journey.

The initial part examines online shopping behaviour and challenges, shedding light on the increased prevalence of online fashion consumption, notably influenced by the COVID-19 pandemic. Key factors driving this shift include the accessibility of online stores, convenience, and the limited availability of local fashion outlets in New Zealand. Notably, participants expressed a preference for online shopping to circumvent in-store interactions. This is indicative of a changing consumer landscape in response to contemporary challenges.

The subsequent portion delves into how AR technology effectively addresses challenges in online shopping, particularly those related to sizing and fitting issues. Participants voice concerns about these challenges leading to returns. The introduction of AR technology, especially virtual try-on experiences, emerges as a solution. AR facilitates a realistic visualization of clothing items, enabling users to envision themselves in the products, enhancing the decision-making process. The ability to virtually try on clothing items addresses the disconnect often experienced in traditional online shopping; contributing to a more satisfying and confident shopping experience.

The chapter further explores key motivators for AR adoption during the consumer decision-making process, categorizing them into intrinsic and extrinsic factors across the browsing, evaluation, and purchasing stages. Simultaneously, it accounts for demotivating factors, focusing on challenges users encounter during the online fashion shopping experience with AR technology. These demotivators are categorized into themes, highlighting specific challenges and their impact on the overall AR experience.

The findings deeply examined the social influences of AR technology in online fashion shopping, accentuating themes such as body positivity, diversity and inclusivity in AR adoption. The study reveals that AR technology plays a pivotal role in fostering positive body perceptions, embracing diversity, and addressing generational disparities in technology adoption.

The final aspect of the results showcased how special incentives influenced consumer behaviour and purchasing confidence in AR fashion shopping. Extrinsic motivators such as discounts, promotions and loyalty programs are main indicators in making purchasing decisions. Moreover, AR

personalization and visualization empowers consumer confidence and purchasing power of online fashion products.

The findings summarize the transformative potential of AR technology in mitigating challenges, enhancing motivations, and positively influencing the online fashion shopping experience across various consumer demographics. The insights gained contribute valuable knowledge for businesses, developers, and researchers aiming to optimize AR applications for the evolving needs and preferences of online fashion consumers.

Chapter 5: Discussion and Conclusion

5.1 Introduction

The primary objective of this study was to investigate the impact of AR on consumer motivations during the decision-making process in the realm of online fashion shopping. For deeper exploration, the paper dissected the consumer journey into three distinct stages: searching, evaluating, and purchasing. The inspiration behind this research stemmed from the sparked curiosity of technological innovation and how AR could be integrated into online shopping platforms. The overarching goal was to ascertain whether AR influences changes in consumer behaviour, and introduces distinct motivational factors into the decision-making process.

As consumer motivations are inherently subjective, the introduction of AR into the online shopping domain necessitates a genuine exploration of consumers' perspectives. The buyers perception uncovers the potential to significantly benefit the world of online shopping, specifically within the dynamic landscape of the fashion industry. In pursuit of this objective, the following research question was formulated to explore the intricacies of this concept:

“How does AR influence consumer’s motivations into purchasing online fashion products in the consumer decision-making process?”

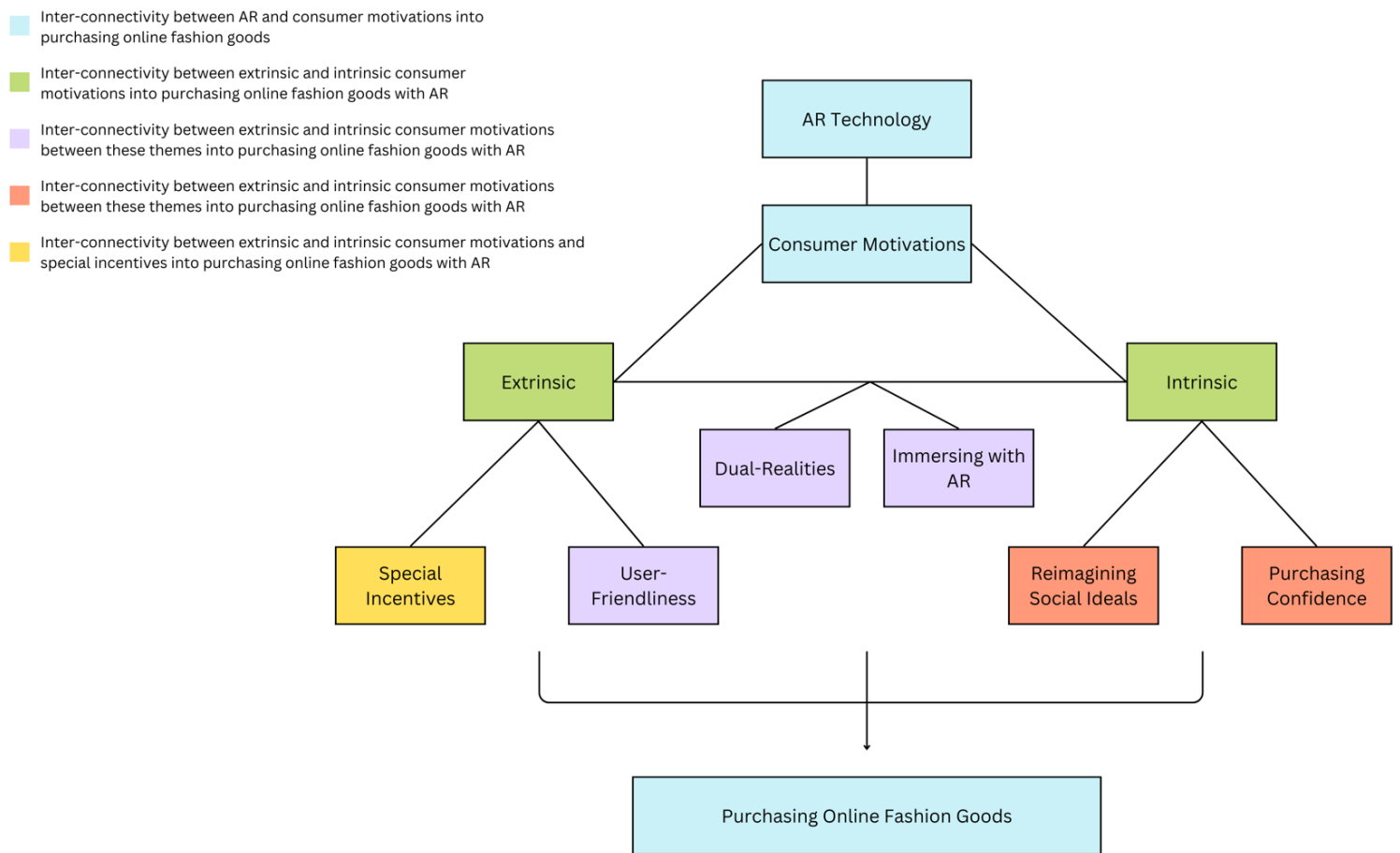
Qualitative data collection methods, including interviews and participant interaction with AR, lead to the identifications of several valuable themes. The findings of this research discuss the existing perspectives regarding the current challenges and benefits of online fashion shopping. By introducing AR to the equation, users emphasized that the technology extends beyond technical aspects; it probes into the social dimensions as well. Consequently, the study brought attention to themes such as immersion, social ideals, dual realities, user-friendliness, and special incentives. These interconnected themes encompass both extrinsic and intrinsic motivators, collectively influencing the decision-making process when purchasing online fashion goods.

In the closing chapter, a conceptual framework is outlined that assisted in providing a thorough understanding of these themes and their interconnections. Furthermore, the chapter will discuss the key contributions made by this analysis, ensued by policy and practical implications. The paper will delineate the limitations of the research and suggest opportunities for future exploration. The thesis is concluded with a succinct summary that encapsulates the essence of this research.

5.2 Conceptual Framework

Figure 1

Conceptual Framework



AR technology influences both intrinsic and extrinsic consumer motivations in the online fashion shopping industry (Figure 1). Intrinsic motivators are the personal enjoyment or satisfaction consumers feel when interacting with AR immersive shopping experiences (Huang et al., 2019; Kim & Drumwright, 2016). By allowing consumers to virtually try on clothing and visualize products in real-world environments, AR satisfies individuals' desires for exploration, novelty, and self-expression. This immersive engagement encourages a sense of enjoyment and fulfilment, driving consumers to spend more time browsing and interacting with products.

On the other hand, extrinsic motivations are influenced by external factors such as special incentives and perceived utility, depicted by Figure 1 (Shang et al., 2005). AR technology amplifies extrinsic motivations by addressing practical concerns and enhancing social validation. By providing accurate representations of fit and style, AR mitigates uncertainties related to online shopping, thereby increasing consumers' confidence in their purchase decisions. The user-friendly interface of AR applications simplifies the shopping process, reducing barriers to entry and facilitates seamless navigation through product catalogues. The ease of use enhances consumers' convenience and satisfaction, motivating them to explore and ultimately, make a purchase. Special incentives, such as discounts or exclusive offers for AR users, serve as external rewards that further incentivize purchase behaviour (Truong & McColl, 2011).

Intrinsic motivations (Figure 1), including re-imagining social ideals like body positivity, individual empowerment, diversity, and inclusion, contribute positively to consumers' purchasing decisions in online fashion shopping with AR (Park & Ogle, 2021; Huang et al., 2019; Taylor, 2020). AR technology enables consumers to visualize themselves wearing different clothing styles and sizes, facilitating a more inclusive and empowering shopping experience. By offering a diverse range of virtual try-on options that cater to various body types and styles, AR enables a sense of acceptance and self-confidence among consumers. This concept of re-imagining of social ideals aligns with consumers' intrinsic desires for self-expression and authenticity, driving them to make purchases that resonate with their values and identity.

Dual realities and immersion with AR contain both intrinsic and extrinsic motivators in the decision making process for buying online fashion goods (Figure 1). The novelty and innovativeness of AR technology, combined with its gamification elements, create dual realities that blend the virtual and physical worlds (Poncin et al., 2017; Alavi et al., 2015). A consumer may have an extrinsic need for a novel and engaging experience if innovative external features motivate them to purchase the product or if they are motivated to pursue it by the prestige or acclaim they receive from others. As an intrinsic motivator, this immersive experience generates a sense of excitement and fulfilment among individuals, thereby captivating their attention and encouraging their active participation. Consumers immerse themselves in AR-enhanced shopping experiences, envisioning themselves wearing different

outfits, planning their wardrobes, and personalizing their style preferences. Buyers may also exhibit extrinsic motivations, such as the pursuit of social approval or status, by adorning their surroundings with aesthetically pleasing objects or environments as a means to demonstrate their affluence, sophistication, or taste to others. Additionally, it may be internally driven by concepts such as self-identity, creativity, or freedom of personal expression. Therefore, the collection of both extrinsic and intrinsic immersive engagement enhances consumers' purchasing confidence and satisfaction, driving them to convert their virtual try-on experiences into tangible purchases.

User-friendliness sets the stage for consumers to engage with AR technology, while dual realities and immersion amplify the allure and impact of the AR-enhanced shopping experience. Together, these themes shape a cohesive ecosystem where consumers can seamlessly navigate, explore, and connect with fashion products in ways that were previously unimaginable. This interconnectedness elevates the online fashion shopping journey, transforming it into a dynamic and immersive experience that resonates with consumers on both practical and emotional levels.

Moreover, the reimagining of social ideals nurtures a supportive and empowering shopping environment that further enhances consumers' purchasing confidence. By celebrating diversity and embracing individuality, AR-enabled fashion platforms develop a community where consumers feel valued and understood. This sense of belonging boosts consumers' confidence in their own tastes and preferences, encouraging them to assert their personal style and elevate the convincing power to make purchasing decisions.

Finally, the connectivity between special incentives and consumer motivations is also evident in the context of value perception and purchasing decisions. Consumers are motivated by the perceived value proposition offered by AR-enhanced shopping experiences, where special incentives play a crucial role in shaping their perceptions of affordability and value for money. Discounts and promotional offers enhance the perceived value of AR-enabled fashion products, making them more attractive and compelling to consumers. This heightened value perception not only motivates consumers to make initial purchases but strengthens loyalty and repeat purchases over time.

5.3 Theoretical Implications

5.3.1 The Complex Dynamics of Shifting Consumer Behaviour in Online Fashion Shopping

By exploring the motivations behind consumers' preferences for online platforms, the study enriches the understanding of how external factors shape consumer choices. It underscores the pivotal role of convenience and availability as primary drivers of online shopping behaviour. This aligns with established theories i.e. the theory of planned behaviour and the technology acceptance model (Cheng, 2018).

Previous research illuminated the implication of accessibility convenience in enhancing consumer satisfaction (Duarte et al., 2018). However, the present study captures the understanding of consumer lifestyles and preferences regarding online shopping. It explores the impact of globalization on consumer preferences (Alden et al., 2006). Particularly, in regions like New Zealand, limited local availability drives consumers to seek a diverse range of products and brands online. While prior research has underlined the importance of flexibility and website availability in defining convenience (Jiang et al., 2013), this paper extends this notion by highlighting how consumers value accessibility to brands, stores, and products not readily available in their local areas.

Consumers prefer to circumvent challenges encountered in physical stores, such as interactions with salespeople, by seeking product information online (Goudge et al., 2017). This inclination may stem from a desire to avoid unwanted persuasion or manipulation from sales staff, as well as frustration with being overlooked or treated with suspicion. In response, individuals often adopt strategies like neutralizing or proactively coping with such situations (Palan & Mallalieu, 2012). The present paper acknowledges these factors and provides valuable knowledge into how sales interactions can mitigate stress. These scenarios contribute to the exploration of psychological factors influencing purchasing decisions in the fashion industry, prompting consumers to turn to online shopping for its reduced 'friction' and more convenient approach.

Additionally, convenience intertwines with pricing considerations. The pandemic's disruptions have led to financial strains for many individuals, altering their spending capacities (Nanda et al., 2021). This study's findings shed light on the psychological factors of consumer constraints in the fashion industry, revealing why individuals opt for online shopping. The allure of sales and discounts online attracts consumers, encouraging them to explore products and make purchases. This emphasis on price outlines the extrinsic aspect of affordability as a pivotal factor in consumer decision-making,

even amidst the immersive and visually captivating environment of AR-enhanced online fashion shopping.

5.3.2 AR's Evolutionary Impact on Online Fashion Shopping

The integration of AR in online fashion shopping applications profoundly influences consumer behaviours and motivations in the decision-making process. Research portrayed a key issue with online shopping experiences where consumers are unable to get a try or feel for apparel items online (Kim & Forsythe, 2009.) The uncertainty of visual information around a fashion item causes consumers to disconnect with the item as a wearer (Jones, 2021). AR enables consumers to visualize fashion apparel in ways that were previously unavailable, offering a unique and immersive experience. This further extends to challenges relating to size and uncertainty in online purchases. Participants expressed how AR tailored their avatar, affording a personalized representation to accurately assess how clothing items would look on themselves, thus serving as a key motivator in their fashion exploration.

AR facilitates a comprehensive understanding of clothing items by offering a 360-degree view, surpassing the limitations of traditional online shopping platforms. This implication extends beyond personal use, benefiting consumers purchasing gifts for others. By enabling accurate sizing assessments without the recipient's physical presence, AR enhances the online gift-giving experience. Furthermore, AR personalization in online fashion encompasses various characteristics such as product recommendations and customization options, all of which contribute to increased user satisfaction, engagement, and overall consumer experience. Participants conveyed that their personalized experience with AR encouraged them to explore more products, create personalized looks, and engage more deeply with the online fashion platform. These actions contribute to an efficient decision-making process and minimising the cognitive load associate with imagining how pieces fit together in online shopping experiences (Kahn, 2017). The research findings, accentuates the transformative potential of AR in shaping consumer behaviour and preferences in the digital era.

Convenience, product variety and competitive pricing are all extrinsic motivations in online shopping (Jiang et al., 2013; Kautish & Sharma, 2018). This study proves that integrating AR adds new dimensions to these motivations. AR introduces factors such as interactivity and engagement, defining the consumer experience as a "creative exercise." Consumers are offered the freedom to manifest personal expression, creativity and individual style preferences. Participants' experiences demonstrated how AR captivated their attention and excited them, ultimately leading to increased engagement and long-term interest. This aligns to the theories of how AR serves as a novel extrinsic motivator that enhances the online shopping experience beyond traditional factors like convenience and pricing. Therefore, the insights from this study contribute to how AR influences consumer

behaviour in online fashion shopping, highlighting its role as a catalyst for engagement and interaction in the decision-making process.

AR addresses a pivotal challenge in the online buying journey. A significant challenge is the inability for shoppers to try on products, often leading to difficulties in envisioning oneself wearing them. The ability to see how a product looks in a virtual space contributes to a more comprehensive and meaningful online shopping experience (Voicu et al., 2023). Studies conveyed that individuals with a heightened visual sensitivity may have a more intuitive understanding of how clothing items will appear on them (Hilken et al., 2017). The ability to visualize clothing items on oneself through AR fosters creativity and imagination, allowing users to become more engaged and connected with the products. In this study, participants' experiences suggested that AR has the potential to provide a unique and highly personalized image of oneself, enhancing the efficiency of the decision-making process and instilling greater confidence in purchases.

Prior research depicts that AR enhances the effectiveness of conveying how a garment will appear when worn, providing a more accurate representation compared to traditional online product images (Baytar et al., 2020). This study dives deeper and showcases that AR fosters a comprehensive and meaningful online shopping experience by providing a realistic touch to the process. It permits users to visualize how clothing items fit on a virtual human form. The technology's ability to emulate aspects of in-store shopping, eliminate the uncertainty associated with sizing, and offer a personalized, immersive experience which contributes to a paradigm shift in how consumers engage with fashion online (Liangchao, 2022). AR facilitates outfit planning, enabling users to try out different clothing combinations and express their individual style preferences. The satisfaction derived from planning an outfit aligns with intrinsic motivations, further enhancing the overall shopping experience. The potential of AR-enhanced apps can reshape consumer behaviours in online fashion shopping, ultimately leading to increased consumer trust, motivation to buy, and satisfaction with their purchasing journey.

Consumers are motivated by the prospect of discovering and acquiring products that are distinct, cutting-edge, or offer a new and exciting experience. This intrinsic motivation is often linked to the individual's innate curiosity and the inclination to explore and embrace new trends or products (Hur et al., 2012). Novelty can supply a sense of excitement and satisfaction in the consumer decision-making process (Alavi et al., 2015). Participants of this study have vouched for the novelty and uniqueness of being able to see oneself in clothing items through AR. It suggests a wider desire for experiences that resemble in-person shopping without the challenges of face-to-face interactions. This preference for features that emulate real-life experiences indicates that AR contributes to enhancing users' confidence in online shopping, aligning with the exploration of how AR influences consumer motivation. By eliminating the need for physical try-ons, AR provides a solution to a limitation in

traditional online shopping. The addition of "extra elements" like the fitting room, visualising oneself and planning outfits are reminiscent of in-store shopping. These features accent the appeal of AR, making the online shopping process satisfying and enjoyable for consumers.

Gamification introduces the interactive and playful elements to make the online shopping experience more enjoyable, immersive, and rewarding (Poncin et al., 2017). In the participants' experience, they found the AR interaction to be unique and different from their regular online interactions, explaining that AR brought a fresh and enjoyable element to their shopping experience. Their expressions of intrigue and nostalgia indicated that the AR experience evoked a sense of playfulness reminiscent of dress-up games, tapping into a creative and engaging aspect of their mind. Similarly, participants noted an unexpected enjoyment from the virtual try-on experience. The element of "fun" surpassed their initial expectations and influenced their overall satisfaction with AR. This example positively links to the recreational aspect of AR, highlighting its potential to enhance user engagement and enjoyment in online fashion shopping. In essence, these discoveries underscore the revolutionary impact of AR in offering consumers dynamic and enjoyable purchasing experiences.

5.3.3 AR's Societal Reshaping in Online Fashion Shopping

The theoretical implications of AR in online fashion shopping, in regard to reimagining social norms, are multifaceted and profound, as elucidated by the findings in the following sections.

Body positivity has a huge impact in online shopping specifically in fashion, as seeing models or advertisements with diverse body types can increase purchase intentions (Tsawaab, 2023). By enabling users to create avatars that align with their own body perceptions, and visualize clothing on them, fosters a more inclusive and empowering online shopping experience. This aligns with the broader societal movement towards body acceptance and conversely, challenges restrictive beauty standards by creating a space for users to appreciate their unique bodies. The study links to how virtual try-ons can encourage users to embrace diverse body types, sizes, and shapes. It promotes a affirming representation of how clothing items may look on different individuals, encouraging body positivity (Park & Ogle, 2021).

AR embraces the real-world variety of identities and preferences, emphasising diversity and inclusivity through its online shopping platform. Previous research stated that diversity and inclusivity in AR involves developing virtual try-on experiences that showcase a rich variety of clothing options suitable for different cultural backgrounds, body sizes, and gender expressions. It encompasses features that grant users the ability to customize avatars or models to reflect their unique characteristics, ensuring a tailored and relatable shopping experience (Zak, 2020). This study reinforces that using AR features for buying fashion apparel can contribute to an authentic and

relatable virtual try-on experience for users from all cultural backgrounds and gender expressions. AR promotes a more equitable representation within the online fashion space, aligning with the principles of diversity and inclusion.

Recent studies (Huang et al., 2019; Taylor, 2020) highlighted the emergence of individual empowerment as a significant theme in online fashion shopping. AR plays a critical role by empowering users to personalize their shopping experiences and articulate their unique style preferences with full autonomy. By instilling a sense of confidence, control, and freedom during the browsing phase, AR elevates individuals' agency in the decision-making process. This study aligns with prior theoretical research on "individual empowerment" in online fashion (Midha, 2012; Narula & Latha, 2021). It validates how AR empowers consumers by granting them full control over their shopping experience to express their unique styles and eventually, make informed purchasing decisions.

By understanding and addressing these implications, stakeholders in the fashion industry can harness the transformative potential of AR to create more inclusive and empowering online shopping experiences for consumers.

5.3.4 Enhancing User Experience in Online Fashion Shopping

The findings on AR user-friendliness in online fashion has important theoretical implications, tackling topics such as usability, graphical difficulties, slowness and lag, and generational disparities.

A seamless process is essential for users to explore various options quickly, facilitating efficient virtual try-ons of multiple items without causing frustration (Schell, 2022). AR usability involves the ease and efficiency with which users can navigate the virtual fitting room, interact with the AR interface, and seamlessly switch between different clothing items (Pachoulakis, 2012). Finding of this study, gives importance to creating an intuitive design that ensures a positive user experience and encourages adoption among a broader user base. The inclusion of features like a virtual closet accents user-friendliness by providing a structured and accessible way for users to manage and try on various virtual clothing items, mimicking the fluidity of a physical dressing room.

On the topic of AR usability, prior research has enquired into graphical issues encountered in AR-integrated applications. These studies have identified several challenges, including visual imperfections, rendering issues, and difficulties in accurately overlaying virtual elements onto the real-world which negatively impacts the user experience (Fernandes & Morais, 2021; Koulieris et al., 2019). Furthermore, it diminishes the quality of visual presentation, hindering the effectiveness of AR in delivering a realistic and immersive online shopping experience (Wu & Kim, 2022). This study

highlights that AR is still in the developmental stages, as it continues to emerge as a growing technology. Graphical issues pose a major challenge, especially during the decision-making phase, where participants encounter discrepancies viewing the clothing items. Such inconsistencies can undermine user confidence and trust in the accuracy of virtual representations. For a reliable and seamless AR-enhanced shopping experience, graphical issues need to be addressed. The present study identified that slowness and lag has significant drawbacks to the user experience. AR requires performance optimization to guarantee swift and responsive interactions. Aligning with prior research conducted by Wang et al. (2023), this will result in an effective and enjoyable online fashion shopping experience.

These discoveries emphasize the complex relationship among usability, graphical quality, performance, and user characteristics in influencing the user's AR experience in online fashion retail. Tackling these theoretical aspects can guide the creation and advancement of AR apps that emphasize ease of use, dependability, and inclusiveness, ultimately enriching the online shopping journey for consumers from diverse backgrounds.

5.4 Practical Implications

5.4.1 AR Interface Design and Performance

The usability and interface design aspect of AR applications for online fashion shopping holds substantial implications for practical implementation. Designing useful AR apps that provide functional benefits with enjoyment-oriented elements such as gamification, outfit planning and customizable experiences will encourage consumers to engage in fashion retail. Through this method, consumers can interact with products and receive more information (Xue et al., 2022). Developers should give paramount importance to intuitive design and user-friendly interfaces to increase user engagement and satisfaction. Investing in extensive user testing and interface optimization emerges as a crucial step to ensure accessibility across all technical proficiency levels. By prioritizing such efforts, fashion retailers and AR developers can effectively enhance adoption rates and cultivate positive user experiences. This proactive approach not only facilitates smoother interactions but strengthens user confidence in AR, consequently bolstering satisfaction and retention.

Graphical fidelity and performance optimization stand out as indispensable considerations in the development of AR applications. If virtual fitting rooms utilize depth scanning techniques to create accurate 3D models, filter out non-fitting items, and allow real-time assessment of styling and matching, this would enhance both online and in-store shopping experiences.

As users interact with virtual representations of fashion products, graphical issues and optimizing performance become imperative to deliver a seamless shopping experience. Participant's feedback regarding slowness and lag in the AR application highlights the critical importance of optimizing performance for seamless interactions. By refining graphical representations and enhancing application performance, retailers and developers can mitigate common frustrations such as slowness and lag. This optimization effort not only enhances user satisfaction but instils trust and reliability in the technology. Users are more likely to engage with AR applications that offer swift and fluid experiences, thereby reinforcing positive perceptions and encouraging continued usage.

AR adoption is highly targeted to millennials and Gen Z generations as they are the most connected with the digital world, and more likely to use technology such as AR than older generations (Schawrz, 2022). Understanding generational differences is crucial for businesses and developers to tailor AR applications to meet the diverse expectations and preferences of consumers across various age groups. Furthermore, generational considerations play a central role in shaping inclusive AR experiences. Recognizing disparities in technology adoption and literacy across different age groups brings the need for tailored approaches. Designing AR applications that cater to diverse demographics, including older generations less familiar with technology, fosters inclusivity and broadens the user base. Providing adequate user support and intuitive interfaces can effectively mitigate barriers to adoption among less tech-savvy demographics, thereby facilitating smoother onboarding and sustained engagement. By accommodating generational differences, fashion retailers and AR developers can unlock new markets and maximize user reach, ultimately driving long-term success and relevance in the evolving landscape of online fashion shopping.

5.4.2 Incentive Strategies

The findings regarding price incentives in the context of AR-enhanced online fashion shopping highlight several practical implications for retailers and developers seeking to optimize consumer engagement and conversion rates.

Price was a determining factor in consumer decision-making as participants preferred on-sale items. It is now one of the most important motivators for customers in traditional buying (Bagga & Bhatt, 2013). This statement stresses the need of incorporating competitive pricing strategies and special incentives to attract and retain customers. Practical implications can include implementing dynamic pricing mechanisms, incentives and promotional activities within AR applications to capitalize on consumers' price sensitivity.

This research boosts the enduring appeal of discounts and promotions in influencing consumer behaviour, irrespective of the presence of AR features. The value of saving money through discounted

sale promotions, influences consumer temptation (Kapitan et al., 2021). Price-related incentives remain a key driver of consumer engagement and purchase decisions in online fashion shopping. Retailers and developers can leverage this knowledge by integrating promotional elements and exclusive offers within AR integrated platforms to enhance user motivation and encourage conversion.

The participants' observation regarding the psychological impact of lower prices is key in encouraging product experimentation. Further incentives or promotional activities can aid justifying consumer buying decisions (Jiang & Rosenbloom, 2005). Utilizing price incentives urges a sense of exploration and risk-taking among consumers. By offering discounted prices, retailers can create a more inviting and low-risk shopping environment within AR applications, promoting greater consumer engagement and satisfaction.

Free shipping was an external factor that complemented AR's engaging features to convert participants' interest into a purchase; aligning with practical studies exploring the effects of external factors that drive consumer decisions in the final online purchasing stage (Konarzewski & Reiner, 2023; Paas et al., 2018). In addition, price consideration held a high regard in this study, therefore, retailers should ensure that price incentives are prominently displayed and easily accessible to consumers in AR platforms. Consequently, it would minimize cart abandonment rates and maximize conversion opportunities in online shopping experiences. Participants articulated that additional discounts at the end of their shopping journey, will give a further push to complete the transaction. Retailers can incorporate this incentive in AR shopping applications to improve the conversion rate of purchases for their target market. By strategically integrating discounts, promotions, and other price-related incentives, retailers and developers can attain results with user engagement and brand loyalty in the competitive e-commerce landscape.

5.4.3 AR Visualization Enhancing Consumer Confidence

AR-enhanced applications poses practical implications for increasing consumer confidence and satisfaction. Participants' encounter with the app provides key solutions to increasing purchases through visualization and personalization in the online fashion shopping journey.

Integrating AR into online fashion shopping applications enables consumers to visualize information not typically available on traditional websites (Baytar et al., 2020). The technology bridges the gap between online models and real-life appearances, heightening the confidence in purchasing decisions. AR adds the element of envisioning oneself, compared to consumers taking a gamble on imagining if the products will yield desired results. A beneficial aspect of AR shopping platforms is the ability to assess how apparel fits the consumers' avatar. It include features such as measurements, face shape,

and complexion. In the current fashion market, finding the right apparel is often challenging, and AR provides consumers with a deeper envisioning capability (Lu & Smith, 2007). AR presents a solution to challenges associated with buying gifts online (Lee et al., 2019). Crediting the visual representations in the technology, consumers can ensure sizing accuracy without requiring the physical presence of the recipient. As AR delivers a customized shopping experience to consumers, it cultivates a heightened sense of purchase confidence and reduces the uncertainties around the product fit and appeal. Therefore, fashion retailers should consider integrating AR in their platforms as it aids in consumers visualization of product information, increasing their confidence to buy.

Furthermore, the personalization aspect of AR plays a crucial role in enhancing user satisfaction and engagement. AR platforms cater to individual needs and desires, increasing consumer motivation to explore and purchase products. As the technology supports the process of evaluating looks and envisioning outfits, it creates a positive trajectory of the customer shopping journey. This creative aspect of outfit planning invokes enjoyment and favourable emotions whilst reducing the cognitive load associated with decision-making. It provides a sense of individual empowerment as consumers have full autonomy over their shopping experience. By harnessing the immersive and interactive capabilities of AR to tackle traditional hurdles faced by online shoppers, retailers and developers can instil trust, confidence, and contentment among consumers.

5.4.4 Inclusivity in Fashion

In fashion, body positivity can substantially impact the online shopping experience. Consumers viewing models or advertisements with diverse body types will ultimately increase purchase intentions (Tsawaab, 2023). Virtual try-ons can encourage users, retailers, and brands to embrace different body types, sizes, and shapes that are not widely represented. AR promotes a realistic and affirming representation of how clothing items will look on different individuals. It offers users the tools to create avatars that reflect their own body perceptions. This personalized experience supports users to visualize and appreciate how fashion items complement their unique body shapes. In summary, AR contributes to an inclusive shopping experience, challenging traditional beauty standards and promotes acceptance of diverse body types.

The flexibility to explore and trial clothing items associated with other genders encourages an inclusive and diverse representation of fashion choices (Plotkina et al., 2021). Incorporating diversity and inclusivity into AR-driven platforms nurtures a sense of belonging and acceptance among consumers. AR has the capability to reflect the identities and characteristics of the consumers reality, thereby celebrating the diversity of users. This is achieved by being able to customize avatars or models according to their preferences. Therefore, ensuring a personalized and relatable shopping experience for individuals of all backgrounds and identities.

The integration of AR into online fashion shopping applications offers retailers and developers valuable opportunities to promote body positivity, diversity and inclusivity. Retailers can create a welcoming and empowering experience to their consumers in the online fashion space which will resonate with users of all backgrounds and identities and lead to increased engagement.

5.5 Policy Implications

5.5.1 Privacy Regulations and Standards in Online Fashion Shopping

Users' reluctance to expose personal data stems from concerns regarding possible misuse, unauthorized access, or data breaches (Sequella, 2020). These apprehensions extend to the uncertainty of the privacy and security of sensitive information, including personal details, body measurements, and images. This information is necessary for precise virtual fitting and styling (Lebeck et al., 2018). In light of the concerns raised around privacy and data security in AR-enhanced online fashion shopping, policymakers need to implement extensive regulations and standards. These regulations should aim to ensure the privacy and security of user data, mitigating the risks associated with the collection, storage, and handling of sensitive personal information on AR applications.

Policymakers should mandate transparent data handling practices on AR integrated online shopping platforms (Hilken et al., 2017). This practice could consist of companies outlining clear and concise privacy policies that include how a user's data is collected, used, and protected. Due to this transparency, users' can make informed decisions about sharing their personal information and discern the measures in place to safeguard their data.

Policymakers could enforce adherence to cybersecurity protocols to protect user data from unauthorized access, breaches, and cyber threats (Marali et al., 2019). Implementing industry-standard encryption methods, secure authentication processes, and regular security audits will ensure the robustness of AR platforms' cybersecurity measures. Mandating strict cybersecurity protocols enhances the security posture of AR-integrated platforms. In turn, reducing the likelihood of data breaches and unauthorized access to user information.

Additionally, policymakers could establish accountability mechanisms for data breaches within AR applications. It would require companies to promptly report any data breaches to regulatory authorities and affected users (Caldwell, 2012) and apply methods that mitigate the impact of the breach to prevent future incidents. Holding companies accountable for data breaches strengthens data security and user trust in AR-enhanced online fashion shopping platforms.

In the realm of AR-enhanced online fashion shopping, policymakers hold a pivotal position in safeguarding user privacy and data security. Policymakers can effectively mitigate risks associated with the collection and management of sensitive information with the defined methods. This proactive approach creates a secure and trustworthy environment, empowering users to confidently interact with AR. Building and communicating trust through thorough data scanning and security measures is crucial for encouraging users to engage with AR features without compromising their privacy and personal information.

5.5.2 Consumer Protection of Inaccurate Representations

Incorporating AR into online fashion shopping applications introduces unfamiliar dimensions to the consumer experience, particularly in terms of visualization, personalization, and style assessment. On the contrary, these advancements raise concerns about the potential misrepresentation or inaccuracies of the products displayed. When users utilized AR to visualize clothing items on virtual avatars, graphical issues appeared to affect the consumer decision-making process. To address these concerns and protect consumers from misleading representations, policymakers may consider implementing regulations and standards aimed at ensuring transparency, accuracy, and accountability within the AR integrated online fashion platforms.

Policymakers will require disclosures about the limitations of AR to manage consumer expectations effectively (Wu & Chien, 2021). Constraints of AR abilities such as colour accuracy, fabric texture and sizing precision should be made transparent to the user. A clear and upfront statement to consumers can alleviate misunderstandings or dissatisfaction resulted from unrealistic expectations.

Adding procedures for addressing consumer complaints or disputes related to misrepresentations can enhance users trust in AR shopping platforms. This entails introducing channels for reporting inaccuracies or discrepancies between visual presentations and actual products. In a case of consumer harm or dissatisfaction, applying procedures for remediation or recourse could increase consumer retention in AR platforms. Offering avenues for consumers to seek redress can enhance consumer confidence and trust in AR-enhanced online fashion shopping platforms which promotes a fair and equitable marketplace.

5.5.3 Digital Literacy

AR technology potentially presents challenges for individuals that are inadept in digital proficiency, which can cause marginalization. Education is key to solving this issue, as humans have the capability to acquire new skills. An individuals' willingness to learn new technologies depends on their self-perception and social environment, potentially leading to rejection of use (Barnard et al., 2013). To

ensure effective navigation of these technologies, governments and educational institutions should prioritize investments in digital literacy education initiatives. By empowering consumers with the necessary skills and knowledge, individuals can better understand how to utilize AR applications, recognize potential risks, and make informed decisions about privacy and security.

The positive perceptions of AR usability of participants in this study, suggests that AR is user-friendly. With proper education and training, consumers can overcome initial apprehensions and effectively engage with AR-enhanced online shopping experiences. Digital literacy initiatives should focus on familiarizing individuals with AR interfaces and functionalities, highlighting the ease of use and accessibility to users without extensive technical knowledge.

5.6 Limitations and Directions for Future Research

This research faces significant limitations that impact its generalization and the authenticity of participants' responses. Firstly, the narrow age range of participants (18-30) may limit the applicability of findings to broader demographics of online fashion shoppers. By focusing on a specific age group known for heavy technology usage, the study may overlook insights from older or younger demographics, potentially skewing the understanding of online shopping behaviours and preferences across different age groups. To address this, future research should adopt an inclusive recruitment strategy to capture diverse age groups and broadly enhance the representation of various perspectives within the study (UyBico et al., 2007).

Secondly, the absence of special incentives, such as sales or discounts, within the AR application used by participants may have influenced their responses and perceptions during the interview sessions. Without real-world exposure to these incentives, participants possibly idealized or speculated responses based on hypothetical scenarios rather than actual experiences. To mitigate this limitation, researchers could integrate special incentives (Kim & Shin, 2015) directly into the AR application to create a more realistic and immersive experience for participants. Conducting follow-up studies on the AR shopping application could examine deeper insights on the impact of incentives on consumer behaviour.

The study's scope on the New Zealand population restricts its application to other locations with distinct consumer behaviours and dynamics of markets. The unavailability of fashion brands in this location, fails to capture the complexities of consumer attitudes and behaviours in areas with a broader selection of retail outlets. Future studies should widen their scope to bigger geographical regions such as Asia or North America, where fashion stores are more prevalent (Brandão & Costa, 2021). Cross-cultural comparisons can help researchers understand how different levels of local store

availability influence online shopping preferences and AR adoption (Nam et al., 2020). This will provide a valuable understanding of global consumer behaviour in the context of fashion retail. Investigating how cultural influences interact with technological decisions may provide significant insights for organizations looking to customize online purchasing experiences to diverse customer segments.

Since qualitative research relies heavily on human interpretation, there is a risk of researcher bias influencing the analysis and findings. Different researchers may interpret the data differently, leading to inconsistencies in the results. Additionally, participants may provide responses that are influenced by social desirability bias or may not fully articulate their thoughts and motivations accurately. To address these limitations and provide direction for future research, incorporating quantitative methods such as surveys or experimental designs could help validate qualitative findings and provide a more comprehensive understanding of the relationship between AR and consumer motivations in online fashion shopping (Cleland, 2015). Additionally, longitudinal studies could explore how consumer motivations evolve over time with continued exposure to AR technology. Integrating diverse samples and exploring cultural differences in consumer behaviour could also enrich our understanding of the topic.

As a researcher, the study's results have prompted consideration of prospective research topics such as the implications for consumer motivations in in-store virtual try-on experiences and the collective integration of smart technologies (AR, VR and AI). This involves investigating the impact of incorporating AR into physical retail settings on the motivations and decision-making processes of consumers. One way in which in-store experiences are distinct from online experiences is that customers can practically try on fashion items. Nevertheless, it is intriguing to ascertain whether AR continues to impact consumer motivations and purchasing decisions despite the presence of physical surroundings. This may also investigate peer recommendations and social-sharing aspects (Chakraborty et al., 2021), in which users can photograph their try-ons using a digital mirror and share the images with their networks. Further investigation in this field may provide valuable insights for retailers and marketers regarding the most effective ways to optimise in-store virtual try-on systems in order to increase consumer motivation and generate favourable results in retail settings.

An area that merits further investigation is the examination of the potential synergies that may exist among AR, VR, AI, and 3D modelling (Hoyer et al., 2020). Such synergies could serve to improve the overall influence of these technologies on consumer motivations and purchasing decisions. Scholars can gain innovative understandings of the collective impact of these technologies on consumer behaviour by examining the seamless integration of these technologies in order to generate personalised and immersive purchasing experiences. Potential directions for investigation include

empirical enquiries into the impacts of recommendation systems propelled by artificial intelligence introduced into AR-enhanced virtual shopping environments, as well as the combination of VR simulations and AR product visualisation tools to generate shopping experiences that are exceedingly realistic. Moreover, an examination of the potential of 3D modelling to augment consumer perceptions and motivations can yield valuable insights regarding its capacity to improve the accuracy and realism of AR-rendered environments and products. Through a comprehensive analysis of the complementarity between these technologies, scholars can contribute to the formulation of novel approaches to utilising AR in e-commerce environments to successfully sway consumer incentives and foster favourable results in decision-making.

5.7 Conclusion

This thesis explores AR influences on consumer motivations in the decision-making process for online fashion shopping. It investigates the extrinsic and intrinsic motivations in each stage of the customer journey: search, evaluation and purchase. Through qualitative analysis, the current research identifies key themes that shape consumer decision-making processes, including immersion, social ideals, user-friendliness, and special incentives. Furthermore, the integration of AR enhances the online shopping experience by addressing challenges related to sizing, uncertainty, and inclusivity. Theoretical implications regarding visualization, consumer perceptions and social ideals are key factors in catering to a wider user base. Practical implications for retailers and developers include prioritizing intuitive design and transparent pricing structures that to elevate confidence in purchasing decisions. The policymakers' involvement is essential in tackling privacy and security concerns to promote engagement and innovation in AR shopping. Future research can explore the effectiveness of AR in online fashion shopping in a global context and consumers response to special incentives.

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Appendices

Appendix A: Ethics Approval



Auckland University of Technology Ethics Committee (AUTEC)

25 August 2023

Yingzi Xu

Faculty of Business Economics and Law

Dear Yingzi

Re Ethics Application: **23/239 How augmented reality influences consumer motivations in the decision-making process for purchasing online fashion products**

Thank you for your responses to AUTEC's conditions.

Your ethics application has been approved for three years until 25 August 2026.

Non-Standard Conditions of Approval

1. Please reconsider the use of a USB as a long-term data storage option as they can be unstable. If you do change the device, please update the Information Sheet.

Non-standard conditions do not need to be submitted to or reviewed by AUTEC unless requested but must be completed before commencing your study.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the [Auckland University of Technology Code of Conduct for Research](#) and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online <http://www.aut.ac.nz/research/researchethics>

For any enquiries, please contact ethics@aut.ac.nz

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat

Auckland University of Technology Ethics Committee

Cc: shayalrupalireddy@gmail.com; Amy.errmann@aut.ac.nz

Appendix B: Information Sheet, Consent Form and Participant Invitation

(i) Information Sheet



Participant Information Sheet

Date Information Sheet Produced:

16/08/2023

Project Title

How augmented reality influences consumer motivations in the decision-making process for purchasing online fashion products.

An Invitation

I, Shayal Reddy, would like to invite you to participate in this study for the Master of Business Thesis research program.

What is the purpose of this research?

The study's goal is to discover how augmented reality (AR) impacts consumer motivation while purchasing online fashion products during the decision-making process. To participate, you do not need any prior expertise in augmented reality. This research will concentrate on your online buying experience, and you will be asked questions based on your encounter with the AR shopping tool a week before the interview. Understanding how consumers react to new technologies being brought into their shopping experiences is vital and analysing this behaviour will help companies to understand and satisfy your desires and expectations while purchasing online.

Participant Inclusion Criteria:

To be a participant of this study, you must meet the following criteria:

- Are between the ages of 18 and 30.
- Are currently residing in Auckland, New Zealand.
- Have previously purchased fashion goods online.

You will be asked to consent to be audio recorded while participating in the interview, this is so we can adequately capture what you tell us.

How was I identified and why am I being invited to participate in this research?

If you meet the above requirements, you can accept the invitation by reaching out to the contact listed on the flyers and/or social media posts. Consequently, you will be provided an Information Sheet and Consent Form via email so that you may evaluate the research and decide whether you want to continue contributing to this study. Participation is entirely optional, and you may withdraw at any moment.

How do I agree to participate in this research?

This provided information sheet clarifies the research in full. It contains what is involved, who is participating, reimbursement details, crucial information concerning privacy and security regarding your personal data and contact information for further information. Before you take part, I recommend that you discuss this research with your friends, family, or others to ensure your participation.

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

You can accept this invitation by sending the signed Information Sheet and Consent form via the contact email, after which you will be notified by email for further information on how to begin participating in this study.

What will happen in this research?

If you agree to participate, you will be given a link to an AR website/application to explore in your free time for a week before the interview. The interviews will take place in Auckland, between you and the researcher, me, Shayal Reddy. The interview will be performed in English at the following location: AUT City Campus, Library Study Rooms, WA.

The meeting is scheduled for 60 minutes.

The interview will consist of you openly expressing your ideas and opinions on numerous themes related to AR technology in online shopping. There are no right or wrong answers. The views you hold are unique to you. The interviews will be audio recorded so that we can effectively capture your every word. This recording will be transcribed using automated software, and you will receive a digital copy after the collection of the data to check the accuracy and also to keep. Your input is highly significant to us, and we appreciate your time and efforts.

What are the discomforts and risks?

You have a choice to leave the interview and withdraw from the study at any time. If you do not want to engage or answer any interview questions that are asked by the researcher, you are able to do so. Although I, Shayal Reddy, will be performing this study, you will be in full control of your process in this. We want you to feel comfortable when participating, so you may pose questions at any moment, and they will be answered with complete honesty.

What are the benefits?

Following the interview, you will be granted a \$30 Prezzie Card as a thank-you for your time and effort in participating in this study.

How will my privacy be protected?

You will have full autonomy over your data. After the interviews, your personal information will be treated with confidentiality, and the recordings will be securely stored. All records are safeguarded at AUT, and digital documents will be stored in an external memory stick that will be locked away at AUT for 6 years before they are destroyed. Any information that could potentially identify you will be handled with utmost confidentiality and will not be disclosed to anyone outside the research team. Your identity will be disclosed and only be referred to as Participant 1, 2, 3, ..., etc. Your information will be used solely for the purposes of this project.

What are the costs of participating in this research?

There are no additional costs for participating in this research.

What opportunity do I have to consider this invitation?

You will be given a period of 2 weeks once receiving an invitation to respond.

Will I receive feedback on the results of this research?

Your transcribed interview as well as a one-page summary of the study's findings will be forwarded to you to the email address you provided on the consent form. This is to ensure your insights were appropriately reflected in the research.

What do I do if I have concerns about this research?

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH,
ethics@aut.ac.nz , (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Shayal Reddy, shayalrupalireddy@gmail.com

(ii) Consent Form



Consent Form

For use when interviews are involved.

Project title: *How augmented reality influences consumer motivations in the decision-making process for purchasing online fashion products*

Project Supervisor: *Yingzi Xu, Amy Errmann*

Researcher: *Shayal Reddy*

- I have read and understood the information provided about this research project in the Information Sheet dated 16 August 2023.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one): Yes No

Participant’s signature:

Participant’s name:

Participant’s Contact Details (if appropriate):

.....
.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 25 August 2023 AUTEK Reference number 23/239

Note: The Participant should retain a copy of this form.

(iii) Participant Invitation



PARTICIPANTS NEEDED!

AUT

Masters Research Study

Interested in fashion and want to contribute to the future of online shopping? Come along, take part in a face-to-face interview at AUT City Campus and receive a \$30 Prezzie Card!

You can qualify if you:

- Are between the ages of 18 and 30.
- Are currently residing in Auckland, New Zealand.
- Have previously purchased fashion goods online.
- Consent to be audio recorded while participating in an interview

CONTACT FOR MORE INFORMATION:

☎ 021-112-1483 ✉ shayalrupalireddy@gmail.com

55 WELLESLEY STREET EAST, AUCKLAND CBD

11-17 SEPT

60 MIN

The poster features a dark blue background with white and light blue text and graphics. At the bottom, there is an illustration of people interacting with various digital devices like laptops, tablets, and a large lightbulb, symbolizing online shopping and research.



AUT

MASTERS RESEARCH

PARTICIPANTS NEEDED

Interested in fashion and want to contribute to the future of online shopping? Come along, take part in a face-to-face interview at AUT City Campus and receive a \$30 Prezzie Card!

If you have shopped online before, staying in Auckland and between the ages of 18-30, we encourage you to participate in this study!

LENGTH 60 MIN

DATE 11-17 SEPT

SIGN UP NOW

The poster features a dark blue background with a hand holding a smartphone in the foreground. The phone screen shows various icons and a calendar. The text is in white and light blue. A large blue arrow points to the right with the text 'SIGN UP NOW'.

Appendix C: Qualitative Coding Process

Themes	Descriptions	Codes/Sub Themes	Code/Sub Theme Description	Example Quotes	Participant No.
Online Shopping Challenges and Behaviour	Participants' current challenges/difficulties when purchasing for fashion goods online.	COVID-19	The challenges and considerations related to the ongoing pandemic and shifting consumer behaviours.	"Due to COVID, a lot of people are still not back to their regular pay, or they're just getting by, so the things they used to afford before the pandemic are not the same. Inflation has gone up as well. So, that's also another factor, and availability, you know, if you're more available online, then most likely people will buy there."	Participant 8
		Consumer Convenience	Refers to the accessibility, simplicity, and efficiency provided by online shopping platforms.	"I shop online because I'm a working professional, and I don't get time to choose and get that hard work done. So, whenever I have to, especially with your clothes or bags or whatever accessories, it's online." "I don't have to leave the house. And it would save bus fares, parking if you have a car, you know, like going to the shops. It could be the convenience of it as well. That's the reason why someone would do online shopping." "I think online is more accessible."	Participant 4 & 8
		Availability and Accessibility	The existence and ease of use of online shopping platforms, emphasising the flexibility and reach afforded to customers in discovering and purchasing items or services online.	"Well, I prefer in-store shopping, but an advantage or a reason why I shop online is because it gives me access to things I can't find locally."	Participant 1
		Limited local fashion stores	Highlight the scarcity or restricted number of brick-and-mortar fashion establishments in a particular area, underscoring potential challenges in accessing diverse and locally curated fashion choices for consumers in that region.	"So, the reason why I don't shop traditionally is because of the New Zealand fashion wardrobe." "New Zealand has a very limited quantity of variation in the fashion sense. So, there's only one Zara store in the entire New Zealand. Especially in men's fashion, you're limited to a certain level of shops, or most local designers are more oriented toward females, whereas the male is more Australian, Asian designers." "Also, when I go in, I don't want to communicate (with staff or people). Sometimes, you don't want to go in and be approached by someone randomly"	Participant 6 & 7
		Salespeople avoidance	The intentional bypassing of traditional in-store interactions with sales staff, as consumers increasingly opt for self-service and autonomous exploration of products or services through digital platforms.		Participant 12
Immersing with AR	Actively observing and visualizing items associated together with the use of AR technology in the virtual-try on fitting room.	Visualisation	The integration of AR technology to provide consumers with immersive and realistic visual representations of products, enhancing the online shopping experience by enabling users to virtually visualize items before making a purchase	"It gave me a proper look at how it would look like being on me, like visualizing it. Especially sizing, that will be a great help because I haven't had that opportunity before"	Participant 2
		Personalisation	The use of augmented reality technology to tailor the shopping experience for individual consumers, providing personalized and interactive features that cater to their preferences.	"Well, it made it more personal. I wanted to look around more, especially when I found out that I could make myself. I really wanted to dress myself and like everything that caught my eye and make outfits. That was pretty cool as well." "The highly personalized aspect. I thought that was really cool."	Participant 2 & 5
		Envisioning Oneself	AR technology features in the application addresses the barrier that allows consumers to envision themselves in the clothes when online shopping allowing them to see what it may look like on them as opposed to current online shopping methods.	Before, you can't really see what it would look like on you or, you know, like, and what angle, so with online shopping before, you can't do that. I can't see or feel what it would be like. You can get a feel for it. You see what you look like, and that's pretty good."	Participant 12
		Visual Representation	To present and display information, objects, or environments in a visually enhanced and interactive manner, providing users with a more immersive and realistic experience	"The product showcase was good. If I put them into even the fitting, then it still looks really natural. Looks very real. And that gives me the confidence to say, yes, I will put that into my cart. Oh, this looks comfortable. You know, like, I'm just going to put it in my cart. Because even the showcasing of the app is very important, it shouldn't be too much. It shouldn't be too less. You know, it should be just the perfect amount. And that was what it is. I don't want to read too much information. I don't want to lead to less information. Just the right amount of it helps."	Participant 3
		Visual Cues	Visual elements and signals that guide and assist users in understanding information, interacting with the environment, or making decisions, enhancing the overall user experience in various applications.	"I think maybe for me, I am quite visual. I have a good understanding of my body, what I wear, and how things will look on me. So, I can understand how it would help someone who has less of an idea and isn't as visual and can imagine those sorts of things."	Participant 7
		Outfit Planning	The motivating activity of designing "looks" leveraging fashion goods associated with one another to create an "outfit" while using the AR virtual-try on function in the online shopping experience.	"It was really interesting that you could layer up, and it makes total sense. I had a lot of fun with pairing outfits."	Participant 5
		Mix and Match	Enable users to experiment with various combinations of clothing, accessories, or other products virtually.	"It was being able to go back and forth through it. It's easier to pair things, especially when they're from different sites because I noticed that a lot of things were from different sources." "It allows you to mix and match, and then you could choose that look, and then you could go to another look."	Participant 7 & 12
		Size and Fit	Provide users with accurate and personalized assessments of product sizes and fits addressing challenges of confidence of purchase and certainty of online shopping.	"Colours, how it looks on the avatar, like where and how it fits, whether it's full-length or mid-length, the patterns, etc. I have a bigger body, so it was nice to see that it (apparel) expands a little when you put it on things which are realistic, and the smaller body patterns will stay the same. It's mainly how the clothes look and how they fit on the avatar. Those are the things that drew me in."	Participant 2

Reimagining Social Ideals with AR	Utilizing AR technology to transform and enhance societal norms, interactions, and values, fostering innovative ways to perceive and engage with the world.	Body Positivity	Body positivity is a social movement advocating self-acceptance, appreciation, and respect for all body types, challenging societal beauty standards and promoting a positive body image.	"The models provide different body sizes. That's what's helpful. Not like, you know, everybody is super skinny, and that would not be a true reflection of how people are. That's quite nice."	Participant 4
		Diversity and Inclusivity	Encompasses the recognition, acceptance, and celebration of a broad range of individual differences, fostering an environment that values and includes people of various backgrounds, experiences, and identities.	"I mean, you feel so much more included. Your perspective and experiences are being valued. Yeah, as opposed to seeing yourself as relative to whoever's wearing the garment on the page."	Participant 5
		Gender Equality	Advocates for the fair and equitable treatment of individuals across the gender spectrum within the fashion industry, challenging stereotypes, promoting inclusive representation, and ensuring equal opportunities for all.	"I loved that I could also put men's clothes on my body because I tend to wear baggy clothes. So, the fact that it's not limited to gender shows that anyone can use this app."	Participant 1
		Individual Empowerment	Empowering consumers by providing personalized, informative, and interactive experiences, enabling individuals to make more informed choices and enhancing their sense of control and satisfaction in the online shopping process.	"Being able to dictate how you get to try on clothes and how you're seen, there's a level of freedom to which you're not necessarily granted."	Participant 5
		Privacy and Data Security	Because AR is a new technology that is being deployed in the online fashion industry, there are concerns about what this may entail for consumer privacy and data security risks while utilizing the online fashion shopping application.	"It's quite scary to be able to mask your face onto a whole, like a character almost in an app. It just makes me think that we humans are crazy advanced in these things, and you don't know what else can come from that."	Participant 1
		Consumer Trust	AR building confidence and reliability in online shopping experiences, fostering transparent and immersive interactions that contribute to consumers' trust in the authenticity, quality, and overall integrity of products or services.	"There's, yet again, that whole trust thing with AR. I know Apple has good features like facial scanning and facial recognition, but not everything is Apple. How can I trust that the company has actually scanned everything properly? So, there's that final trust barrier where I don't necessarily try?"	Participant 10
Balancing Dual Realities	Entails merging novel and engaging AR experiences with the real online world, fostering innovation by seamlessly combining interactive elements to enhance the overall shopping experience.	Combination of Real and Online world	involves the integration of AR technology to seamlessly blend elements from both the physical and virtual realms, creating immersive and interactive online fashion shopping experiences.	"It would be the best of both worlds. So if online shopping could, you know, incorporate this app and have all those fun features and resemble what happens in real life without having to deal with real people? It would make me feel a lot more confident in selecting clothes by buying stuff straight from the internet."	Participant 4
		Engagement and Interaction	The level of user participation, attention, and active engagement with the AR application during online fashion buying, which contributes to overall interactivity.	"It almost felt like a creative exercise, like a creation. You don't often think of your outfit in that way. It's like a sculpture of, like, you have this model, and then you put the clothes on it. When you're looking at normal online shopping, you don't really think of it that way."	Participant 9
		Gamification	AR introducing interactive and playful elements, turning the shopping experience into an engaging game-like environment, enhancing user participation and enjoyment.	"It also hit a spot of nostalgia for me in terms of playing dress-up games. With that, it did add an element of fun to it, which I wasn't expecting to have as much fun with"	Participant 5
		Innovativeness	The innovative and pioneering use of augmented reality, providing ground-breaking features in a variety of situations to improve user experiences and promote breakthroughs in how information is displayed, interacted with, and experienced.	"First of all, I like to work out with a new app. So, I was very eager to go through the app, like what's happening, so I was taking general notes like what's what, what features are there? And then I'm like, oh, you can do this. It's pretty intriguing. I'm a little older, and I have not seen such things. And I may not be aware of everything either, like there are things I don't know in the market."	Participant 3
		Novelty	The introduction of fresh, unique, and inventive AR features that captivate users, offering a distinct and exciting shopping experience that goes beyond conventional online interactions.	"It was interesting. It's not something I've seen before. You don't normally see it in yourself. You see it on a model. So that's like one big thing." "I was hyped (excited). I was hyped because it was something new."	Participant 7 & 12
AR User-friendliness	Refers to the ease of use, accessibility, and intuitiveness of augmented reality applications, ensuring a seamless and enjoyable experience for users, regardless of their level of familiarity with the technology.	Ease of Use	The ability of AR to provide intuitive interactions to ensure a seamless and straightforward experience for individuals in online fashion shopping.	"The AR wasn't hard to use either; you would think it would be complicated, but it wasn't. It's daunting in the beginning, but it's a lot easier to use in general."	Participant 1
		AR usability	The ease and efficiency with which users may navigate the virtual fitting room, interact with the augmented reality interface, and fluidly swap between different clothing items.	"It made it easier because you could switch the items quickly. There wasn't much delay, or you add it to your closet and just put it on. It's as if it's in real life, like you can quickly change in and out."	Participant 2
		Graphical Issues	AR technology may still be immature in terms of higher resolution product display and visual representation, which may discourage certain consumers from shopping for their wanted fashion products online.	"But I noticed that the fit is completely different between 2D and 3D views. When I looked at pants in the 2D view, they came right down to the shoes, and sometimes the shoes just flipped over. Then you go into the 3D view, and they're above the ankle. I'm like, that's a little strange and inconsistent, which doesn't give me much confidence and the right offering."	Participant 10
		Slowness and Lag	AR technology is still plagued by buffering, latency, and smooth software development, all of which need to be addressed in order to improve the user experience when searching for fashion products in online shopping.	"It was laggy. It was really laggy, which turned me off using it. Yeah. That was really the main thing that I noticed."	Participant 11
		Generational Difference of Use	The differences in how various age groups interact with and may assimilate AR technology into their daily lives, reflecting distinct preferences, attitudes, and behaviours across generations.	"So, for me, I'm a tech-savvy person. I find it difficult to use it, and if I pass this on to my mom or a grandmother who doesn't use a phone and would like to buy stuff online, you tell her that you can do that with an app."	Participant 8

Special Incentives	The promotional activities displayed in online shopping experiences when first searching for products, which includes price changes, discounts or special incentives such as reward or loyalty programs that influence the consumer decision making process.	Price Influence	The impact of pricing strategies on consumer behaviour, affecting purchasing decision.	<i>"Okay, if it's pricing. If the price is high, why is the price high? The quality must be good, or something about it. I would do some research on my side, but ultimately, the price is too high. I'm not going to go for that."</i>	Participant 12
		Sales, Discount, Promotional Activities	Involve leveraging special offers, and promotions to stimulate consumer interest, encourage purchases, and enhance the motivation for online shoppers to make buying decisions	<i>"If it's really cheap, then it's like giving me an excuse to make mistakes and try on things you know don't fit me. Then there isn't too much of a cost attached to it, which would make me braver and more open to trying new things."</i>	Participant 4
		Shipping Costs	The fees associated with delivering purchased goods from online retailers to consumers, influencing purchasing decisions	<i>"If there is free shipping, then I'll buy something." "Free shipping, free shipping. Yeah, that would help."</i>	Participant 13 & 4
		Loyalty Programs	Involving structured reward systems offered by online shopping platforms to incentivize and retain customers, providing benefits, discounts, or exclusive perks in exchange for ongoing patronage, fostering customer loyalty and repeat business	<i>"Yes! Yes! Say I have a usual store that I go to, and I have signed up for it. Sometimes, you get emails that you need to check. You know, sometimes you get promotional codes and then say I'm shopping, and then I remember I am signed up, I have an account. So, I'm going to check my emails for promotion code, but sometimes it gives you the code to put in, so I'm like, do I have it? And if it is there, it's lucky enough." "But the purchase decision was made better by this thing (AR). I was surer of my purchase as opposed to previously when I would shop; it would still be back on my mind a little bit. Whether it will be what I hope it will be like or there's something wrong."</i>	Participant 3
Purchasing Confidence	Involves leveraging AR to instill a sense of assurance and certainty in consumers during the decision-making process, providing immersive and informative experiences that enhance their confidence when making purchases	Certainty of Purchase	AR providing consumers with a heightened level of confidence and assurance in their purchasing decisions through their virtual try-on experiences.	<i>"I guess that gives you that convincing power some, that maybe I should try it because I have those envisions to actually see what it looks like on my body. Sometimes, you know, with online shopping, especially with clothes, even if a different model wears them and it seems to be really nice, but when they show it to you, it does not look good. So that's the personalization, I think, is going to be the asset of that because it can show you personally what you look like, and it will help them also with people they want to give gifts to."</i>	Participant 9
		Convincing Power	The persuasive impact of virtual experiences, influencing consumers by providing compelling and immersive presentations of products to boost confidence and encourage purchasing decisions.		Participant 8