

Blurring boundaries between physical and digital: Consumer perception of emerging technologies in the fashion landscape.

Student Name: Chantalle El Sharkawy

Student Number: 631657

Supervisor: Izabela Derda

Master Media Studies - Media & Business

Erasmus School of History, Culture and Communication

Erasmus University Rotterdam

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Abstract

The COVID-19 pandemic has accelerated the adoption of technology across various sectors in contemporary society, including the fashion industry. Lockdown and social distancing measures resulted in the inability for individuals to visit physical stores and purchase products. Therefore, a disruption to traditional retail operations was made evident. This led to fashion brands becoming creative and innovative, by turning to digital solutions to maintain their consumer base, aiming to provide a positive consumer experience while generating revenue through sales. Additionally, digital fashion has increasingly become a topic of significant interest to fashion marketers, brands, and academics. This research intended to understand the perception of Gen Z consumers and how they engage with emerging technologies, particularly virtual try-on (VTO), within their shopping experience post-pandemic. UAE Gen Z residents were the chosen demographic, and a qualitative study was conducted with eleven semi-structured interviews being held. Gen Z are a crucial demographic to examine due to their substantial purchasing power and digitally savvy nature. Their influence could greatly impact the success of established fashion brands and the emergence of new ones in the competitive market. The UAE was chosen because of its strong position in the e-commerce sector, being identified as the fastest growing among the GCC nations. The research intended to gain an in-depth understanding of how the current technology is responded to by consumers by accounting for their opinions, views, and perspectives. The thematic analysis revealed that VTO, consisting of augmented reality and virtual reality technology, can enhance the consumer shopping experience and gravitate the fashion industry towards becoming more sustainable. However, concerns were found surrounding the unreliability, inaccessibility, and safety of VTO technology. Despite these concerns, the study found that consumers are open to using VTO as a fashion shopping tool and would be more inclined to use the features provided the issues are addressed. This research provides valuable insights for fashion marketers, fashion brands, developers, and psychologists and contributes to the existing literature on consumer experience and technology acceptance.

KEYWORDS: Digital fashion, VTO, consumer experience, consumer decision-making, sustainability.

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1. Introduction

Online shopping has significantly increased due to the COVID-19 pandemic. Research has reported on the surge in sales “52% of respondents who are merchants with an online platform in the UAE stated that the level of online shopping did increase in comparison to before the COVID-19 crisis” (Alsop, 2022, para.1). The global pandemic has therefore, made purchasing online the new norm (Kim & Ha, 2021, p.1). Consequently, the restrictions that existed on visiting physical stores has led to the fashion industry offering new affordances of technology to enhance the consumer experience and support consumers with their decision-making process (Kim & Ha, 2021, p.1). This trend is particularly notable in the UAE, which has emerged as one of the world's fastest-growing retail markets, with the UAE becoming a leader among the GCC nations in e-commerce sector (Geronimo,2023, para.4). Consumer spending in the UAE's retail economy increased by 14% in 2023, highlighting the sector's rapid expansion (A Perspective Based on Full-Year Market Data and Consumer Behaviour 2024, p.4). This has led to research reporting on the UAE retail market which is found to previously be valued at USD 30.17 billion in 2023. It is anticipated to grow at a robust CAGR of 6.2% through 2029, making it a regional hub for shopping and commerce (Sharma, n.d, para.1).

The UAE's online market in 2022 is predicted to consist of 1.5 trillion people (Geronimo, 2023, para.7). Most of the UAE population has been found to use the internet for purchasing online, which generates 70% of the existing e-commerce transactions (Geronimo, 2023, para.6). It is expected that “the e-commerce sector in the UAE will generate \$8 billion in sales by 2025” as reported by The Dubai Chamber of Commerce and Industry (Geronimo, 2023, para.6). The prominent use of mobile phones and the predicted revenue generated within e-commerce highlight the vitality of the internet and technology in today's world when it comes to shopping; this means that for consumers and fashion retailers that the shopping journey does not only begin in the shopping center or on the high street; it can start from anywhere due to the portability and accessibility that digitalization provides (Alexander & Alvarado, 2014, p.29) Research suggests that retailers should offer consumers a blend of the positive aspects of more traditional stores and the online shopping experience. An example is that while physical stores offer a sensory and more emotional experience, there is the element of convenience and ease which comes with online shopping (Alexander & Alvarado; 2014,

p.29). Several examples of technological affordances and developments that can help in achieving this and are evidently present within the fashion sphere include augmented reality (AR), virtual reality (VR), and mixed reality (MR) (Kim & Ha, 2021, p.1). These developments do not intend to replace in-store purchasing. Instead, they behave as an extension to the physical experience (Song et al., 2019, p.1217).

The fashion industry is the world's second-largest polluter, responsible for 10% of the carbon dioxide produced, surpassing that of international flights and the shipping sector combined (Mesjar et al., 2023, p.2; Liu, 2022, para.5). Leveraging digital technology presents a potential solution to fostering a more sustainable supply chain from production to the end stage of purchasing which is useful for the industry and consumers (Mesjar et al., 2023, p.3). Technological advancements such as VTO enable consumers to visualize how garments appear on them before making a purchase; therefore, it can aid in producing items on demand, preventing material waste and overproduction (Chan et al., 2023, p.19). The digital try-on process can also reduce the chances of buying items that do not fit correctly, consequently decreasing the volume of returns (Lee & Xu, 2019, p.1). High frequency of returns has often been associated with logistical and financial problems for e-commerce sellers and, in turn, shrinks companies' margins (Glasheen, 2019, para.2-4). According to Lee & Xu (2019, p.1), "\$62 billion are in returns annually, and 70% of these are due to fit-related problems," illustrating the financial benefit of combatting fit-related issues and reducing the volume of returns through such technological affordances (Liu, 2022, para.8; Gültepe & Güdükbay, 2014, p.31).

Generations are known to be influenced by the environments in which they grew up. For example, Gen Z is widely interested in seeking truth and alignment with the brands they invest in (Francis & Hoefel, 2018, para. 5; Agrawal, 2022, 4-5). Both Gen Z and Millennials are the primary generations making sustainable purchases compared to other population segments. Younger generations consistently search for sustainable solutions and brands to improve their shopping habits (Manley et al., 2023, p. 313-327). Gen Z is born into a 'virtually connected' space and are categorized as digital natives, making them valuable when researching technologically driven tools (Thangavel et al., 2019, p.712).

This paper will focus on the active collaboration between technology and the fashion industry (Särmäkari, 2021, p.93). Over the years, there has been a growing interest in a fragment of digital fashion, known as virtual try-on platforms (VTO), this has been recognized as a valuable element of the consumer experience that is implemented using VR or AR technology (Hwangbo et al., 2020, p.1). VTO behaves as a tool that assists consumer decision-making and as a communication and marketing tactic (Chan et al., 2023, p.19). It allows for consumers to browse collections and try on garments through online channels (Alfredo & Rodriguez, 2016, cited in Lee & Xu, 2019, p.1).

The target group of focus will be Gen Z UAE residents, as this generation is constantly seeking new innovative ideas that push existing boundaries, which is reflective of technological advancements and the benefits VTO brings to the fashion space (Tamim, 2022, para. 7). Furthermore, Gen Z is projected to wield over 100 billion dollars in spending power globally within the next ten years (Tamim, 2022, para. 5). The significant purchasing power obtained by Gen Z and their habits, therefore, impact the ecosystem. Hence, it is essential to study what they think (Manley et al., 2023, p.314).

Understanding Gen Z's shopping habits, consumer experience, and technology acceptance could provide valuable insights to academics and various stakeholders. From brands and marketers, to psychologists, developers and advertisers.

Thus, this research will explore: *How do Gen Z consumers perceive and engage with emerging (VTO) technologies in their post-pandemic consumer experience within the fashion industry?*

1.1 Academic Relevance

Noris et al. (2020, p.32) states that there has been scholarly interest in consumer-facing digital solutions in the fashion industry. However, more attention must be paid to understanding how consumers perceive the emergence of technologies in the fashion experience (Noris et al., 2020, p.38). Additionally, literature has mentioned that the acceptance of digital fashion needs to be examined from a consumer perspective using the technology acceptance model (TAM) (Chan et al., 2023, p.31). This presents a noteworthy knowledge gap that this thesis will address through the selected framework.

Furthermore, while some past studies have been conducted within the Middle East region, Al-Naqbi and Alshannag (2018, pp. 570-571) have highlighted an area which is lacking in research. Indicating that more studies need to be conducted on pro-environmental behaviors and fashion choices that UAE residents make, a topic of significant importance in today's world. This research intends to shed light and explore this area in some depth, thereby contributing to the understanding of sustainable fashion choices in the Middle East region.

It has been found that most academic literature surrounding digital fashion and VTO has been fixated on the sample of females. Therefore, there remains a lack of understanding of the male consumers in the fashion landscape (Blázquez, 2014, p.103). This research will include both genders to gain more insight into both demographic groups (Blázquez, 2014, p.103). When it comes to research surrounding VTO, most of the studies focus on the beauty sector, e.g., trying makeup, accessories, sunglasses, and jewellery; this cannot entirely reflect VTOs' incorporation into the fashion space. Therefore, this research will aim to be inclusive and explore the usage of VTO beyond those domains (Plotkina & Saurel, 2019, p.1-3).

1.2 Societal Relevance

The COVID-19 pandemic has significantly impacted various aspects of people's lives, including how they interact, work, and invest in certain goods and services (Gu et al., 2021, p.1-2). In light of this, technology has been a crucial tool that has augmented and facilitated the consumer shopping journey (Romano et al., 2020, p.3-7). The decision to focus on the tool was because acquiring physical garments through digital retailing transports individuals into a more immersive and imaginative landscape (Silvestri,2020, as cited in Casciani et al., 2022, p.4).

The societal relevance of research into this topic is evident, as it offers significant benefits for various stakeholders. Technology is becoming more prominent and widely adopted in the marketplace, which makes it vital to understand how consumers perceive and engage with technological advancements (Alexander & Alvarado, 2014, p.32).

This research provides valuable insights for retail management operations, as they can gain information into how technology can be leveraged to improve their operations and increase their competitive edge (Blázquez, 2014, p.2). Retailers seek methods to increase their generated revenue (Blázquez, 2014, p. 2). Therefore, the paper can inform retailers about consumers' values, habits, and perceptions surrounding technological advancements within the fashion domain (Blázquez, 2014, p.30).

Furthermore, it could provide retailers with information about how the tool can assist in reducing the waste generated and the amount of pollution inflicted on the environment (Liu, 2022, para.7-8). Digital fashion can promote more sustainable consumption habits and reduce the demand for physical samples; it could also reduce the culture of purchasing and returning products (Rathore, 2021, p.55).

Secondly, research into VTOs is beneficial to tech developers as consumers will address both positive and negative aspects of the body scanning tool, and consumers will report on their perceptions surrounding the reliability and accuracy of augmented reality (AR/VR). Leading to tech developers being able to ensure that aspects highlighted as not optimal can be improved to optimize the tool's effectiveness and use (Chan et al., 2023,12-22).

Lastly, this research also has implications for advertisers and marketers as Gen Z consumers are studied. Therefore, valuable insights will be proposed based on consumers' acceptance of technology in their fashion experience, which could inform brands on how to

produce targeted messages for the demographic of Gen Z female and male consumers who reside in the UAE (Rathore, 2021, p.55).

1.3 Thesis Overview

Based on the academic literature, a theoretical framework will first outline critical terms and aspects vital to exploring digital fashion and VTO. These include VTO as digital fashion, digital fashion as a purchase-supporting technology, Gen Z and sustainability, consumer experience and decision-making, customization, and the technology acceptance model (TAM).

The methodology section will outline why qualitative research is deemed the most suitable. This will consist of in-depth interviews, which will assist in understanding Gen Z consumers in the UAE and how they perceive and engage with technological advancements post-pandemic within their fashion experience.

A thematic analysis will also be conducted to interpret and identify connections between interview findings and academic literature. The results will present the selective codes of VTO under the theme of 'perception' please refer to appendix C for more detailed information displayed within a coding tree.

After that, the conclusion and discussion section will summarise the findings and answer the research question. The limitations of the research and its implications will be presented. The findings of this research can eventually be used to help guide and inform future research within digital fashion and the consumer experience.

2. Theoretical Framework

The theoretical framework presents core concepts explored in this research, including digital fashion, sustainability, consumer experience, consumer decision-making, and customization. These chapters are linked to the Technology Acceptance Model (TAM), which serves as a framework for understanding how consumers respond to technology, and how accepting they are of using it. More specifically, this study focuses on how consumers perceive and engage with emerging technologies within the digital fashion space.

The chapter will begin by presenting an outline of virtual try-on platforms as digital fashion, followed by a detailed explanation of digital fashion and its role as a tool in contemporary shopping. This will lead to discussions on the perception and engagement of Gen Z consumers' sustainable habits within the fashion sphere. The following section will explore consumer experience and the decision-making process to help capture what the consumer experience comprises and how an individual decides what to purchase; this will then be followed by a discussion of customization, outlining the tailored aspects within VTO.

2.1 Virtual Try-on Platforms as Digital Fashion

The topic of digital fashion has recently gained significant popularity (Särmäkari, 2021, p.90). According to academics, digital fashion is an intersection between technology and fashion, offering benefits for both consumers and brands by utilizing 3D technology in "product development, visualization, distribution, and marketing" (Särmäkari, 2021, p.93). In simpler terms, digital fashion involves a product's virtual development and the visualization of garments (Chan et al., 2023, p.156).

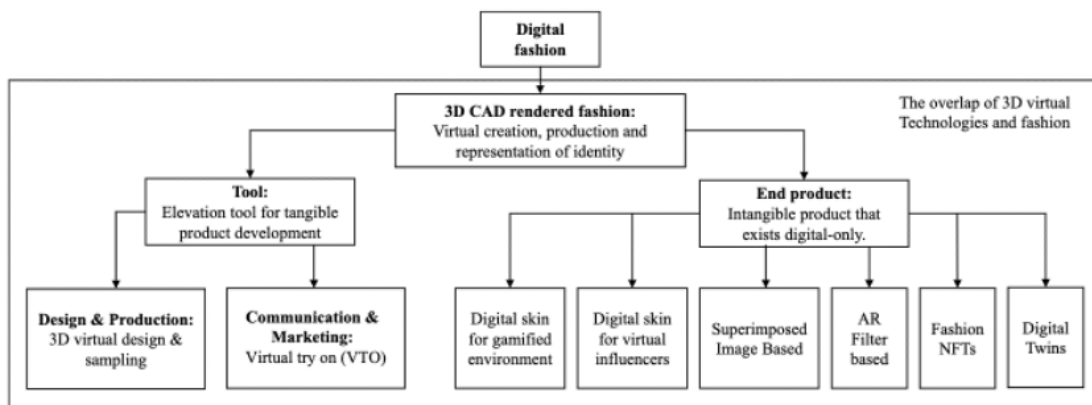


Figure 1. “Definition of digital fashion in 3D virtual technologies field” (Chan et al., 2023, p.19)

Figure 1 proposes two differentiating ways of understanding the term digital fashion. Firstly, the figure indicates that digital fashion is a tool that can assist in obtaining a tangible product, an example being for design and production. With this, retailers and manufacturers can view designs virtually during the early stages of design and sampling, and can amend them accordingly (Chan et al., 2023, p.18-19). Digital fashion can also act as a tool for communication and marketing by allowing consumers to see the fit and style of a garment virtually before purchasing through VTO (Chan et al., 2023, p.18-19). The second way digital fashion can be perceived is as an end-product that has exclusive existence online (Chan et al., 2023, p.19). Therefore, an example of an intangible digital-end product would be NFTs or digital skin for virtual influencers (Zhang et al., 2023, p.1976; Plotkina & Saurel, 2019, p.24-26). This paper will focus on digital fashion as a tool for communication and marketing purposes and the use of VTO technology. The reason as to why this field of research is imperative is because understanding how consumers perceive and interact with digital fashion allows for predictions to be made about their purchase decisions. Figure 1 illustrates the broad range of areas digital fashion covers (Hirschman & Holbrook, 1982, as cited in Childers et al., 2001, p.513). According to literature, consumers either like to solve problems or want to experience fun, simulation, and enjoyment. Several perspectives surround shopping and technology usefulness (Childers et al., 2001, p.514-517). As mentioned by Hirschman and Holbrook, problems consumers face can be solved through an engaging and exciting process, by using up-to-date applications and systems (Childers et al., 2001, p.513).

Technological advancements have great potential to significantly impact fashion industry’s future through dematerialization of resource-intensive practices in the fashion-

supply chain, with the desire of co-creating value across a range of sustainability dimensions (Casciani et al., 2022, p.773). Furthermore, recent literature has highlighted the transformative impact of digital technologies on the traditional fashion supply chain. This transformation has been classified and categorized across three clusters (Casciani et al., 2022, p.778).

Cluster 1 is associated with partial digitalization of the supply chain. Simply put, virtual garments are utilized to support their traditional physical production line (Casciani et al., 2022, p.778). According to Figure 1, this would be ‘Design and Production’, or ‘Communication and Marketing’ (Chan et al., 2023, p.19).

Cluster 2 entails digitalizing the entire supply chain process and curating both physical and digital garments; the ability to virtually present products help support the on-demand physical production process making customization feasible (Casciani et al., 2022, p.780-782). As illustrated in Figure 1, this would also be ‘Design and Production’, or ‘Communication and Marketing’ (Chan et al., 2023, p.19).

Lastly, Cluster 3 is digitalization, where only virtual garments are produced, focusing on the non-physical space and the digital economy (Casciani et al., 2022, p.780). According to Figure 1, this would be an ‘end-product’ also labelled as the ‘intangible’. An example of this would be ‘digital skin for the gamified environment’ (Chan et al., 2023, p.19). These clusters will respectively be adopted as a model for this research, as they account for digital transformation in the fashion industry and consider innovation offering a multi-dimensional perspective on VTO, Digital Fashion and sustainability (Casciani et al., 2022, p.774).

Digital fashion, in this context, is presented primarily as a tool to inform physical purchasing (Särmäkari, 2021, p.90). As a result, this research will fixate on clusters 1 and 2, which incorporate partial digitalization and entire digitalization of the supply chain. This comprises of digital fitting and personalized sizing options and allows individuals to try the garment through AR/ VR features (Casciani et al., 2022, p.780-786). Therefore, cluster 3 will be disregarded as it is more in line with definitions of ‘virtual fashion’ rather than ‘digital fashion’ and is not a supporting tool (Casciani et al., 2022, p.780).

Digital fashion blurs the boundaries between the physical and the virtual. It encourages creation and innovation in unconventional ways; digital fashion enables the process of creating products and services that could be titled as disruptive to traditional fashion practices (Casciani et al., 2022, p.783). It presents a broad perspective surrounding digital design and

the presentation of clothing, an example of which is VTO features which is contrary to virtual fashion which focuses on the intangible (Bieńkowska, 2023, p.106).

2.2 Digital Fashion as a Purchase Supporting Technology

VTO is a key aspect of digital fashion which can enhance consumers' purchasing experience by allowing consumers to visualize clothing and accessories on themselves prior to purchasing. This reduces the likelihood of an item fitting the customer incorrectly and eventually being returned (Periyasamy & Periyasami, 2023, p.5). However, according to 3D LOOK, an AI powered technology company that specialises in scanning software, "no means of body measuring - be it a mobile body scanning app, 3D booth or a measuring tape- can guarantee the numbers to be 100% accurate and always remain the same because the human body does not" (The enormous impact of daily physiological changes on the accuracy of our body measurements, n.d., para. 22). This more simply encapsulates that scanning methods are beneficial and increases accuracy. However, it does not always guarantee that the measurements provided will be perfect. This is because bodies are complex, and therefore, a person's breathing state, posture, and other factors could alter the measurements detected. This is a crucial aspect to consider when using terms like 'accuracy' surrounding body-scanning technologies (The enormous impact of daily physiological changes on the accuracy of our body measurements, n.d., para. 15). Further research should be conducted on human autonomy to increase the accuracy level of the measurements obtained and the detection features embedded into the scanning software (Khorsand, 2023, p.17).

AR/VR are in VTO, they are outlined as tools to enhance and improve the consumer experience. It is essential not to be ignorant and account for the areas of concern that stem from such technological developments. As without accounting for both strengths and weaknesses, retailers cannot decide to integrate VTO services into their shopping experiences (Youn et al., 2023, p.2). A prominent example of an identified concern revolves around data collection and the lack of protection for users' privacy. AR/VR scans consumers' faces, for example, when virtually trying on sunglasses and beauty products, therefore, this means the consumer is giving their biometric information away (Carter & Egliston, 2020, pp. 10-11; Youn et al., 2023, p.2). Consequently, this can be argued to be a form of surveillance (Bierend, 2018, p.3-5). A data protection solution has been proposed for companies to

publicly mention what type of personal information they obtain access to and share with any third parties since some companies tend to encourage a “no share” data law option. This enables users to reject and protect their data from being collected and circulated to other companies (Slater et al., 2020, p.10). Another issue independent from biometric information being collected is that mobile applications that have AR and VR features embedded can detect real-world locations when used (Carter & Egliston, 2020, pp. 10-11). This would mean that geographical data can be used for advertising (Carter & Egliston, 2020, pp. 10-11). Computer scientists have proposed that there should be an encryption tactic implemented with privacy algorithms being put into place to protect the personal information surrounding consumers’ body measurements, biometric information, and geographical locations (Youn et al., 2023, p.2). However, there remains a serious concern from the consumer’s end regardless of such proposals being discussed (Youn et al., 2023, p.2). Therefore, it is a tool that should be studied to understand how consumers see best to overcome these existing concerns. This insight will have the potential to help shape the future of the 3D body scanning technology (Youn et al., 2023, p.2).

The privacy calculus theory is when new technology and service is implemented that is invasive, in the sense of requiring personal information to be shared, an individual faces a ‘privacy paradox’ this means they are aware of the privacy concerns, but also the benefits that this technology can offer (Youn et al., 2023, p.3). At this level, an individual must identify the costs and benefits to make an informed decision and maximize the positive output while reducing the negative outcome they face (Youn et al., 2023, p.3). The positive outcome or ‘gain’ in this case would be using VTO as a tool to assist the shopping experience if offered by the retailer, and the negative result, also known as the ‘cost’, would be the exchange of their data that the retailer gains access to (Pentina et al., 2016, p.410). This research attempts to capture how consumers respond to technological developments and whether privacy is a term referred to or discussed within the interview process. Very few scholars have obtained data surrounding consumers’ concerns with body scanning technologies while accounting for customization (Youn et al., 2023, p.2). Therefore, there is an existing gap that needs to be attended to. Although privacy and accuracy are a weakness, scanning software in VTO technology, which falls under the category of digital fashion, can still be used to address fit-related problems for the most part but also contribute positively to sustainability issues. Sustainable fashion is popular among consumers concerned with the world's ecological and social state (Shaik et al., 2022; Bieńkowska, 2023, p.105). Sustainability and fit-related

solutions, such as scanning techniques available through VTO, can be suggested to be related to one another, as informed by Periyasamy & Periyasami (2023, p.5). The importance of sustainability will be illustrated in closer detail further on in the theoretical framework.

2.3 Gen Z and Fashion Sustainability

In the context of the fashion landscape, sustainability refers to not being wasteful of resources at various stages of fashion design, production, and consumption to reduce the negative environmental impact this may have on individuals and the environment (Mesjar et al., 2023, p.1). This section sheds light on VTO platforms as having many benefits, offering the potential to reduce the industry's waste by decreasing the frequency of garments returned and mitigating the environmental impact at the level of consumption (Periyasamy & Periyasami, 2023, p.3-6). VTO becomes a useful solution, as clothing is the most frequently returned e-commerce purchased item at 26%, followed by shoes, bags, and accessories which rank as the least frequently returned category in the fashion sphere (Bashir, 2024, para.1).

Gen Z has been identified as more caring than any other generation regarding fashion sustainable practices in purchasing clothing (Brand et al., 2022, p.15). Therefore, they may be interested in exploring environment-friendly solutions to contribute to the growing landscape of fashion sustainability (Pradeep & Pradeep, 2023, p.2). Gen Z consumers are increasingly concerned with environmental and climate issues (Pradeep & Pradeep, 2023, p.2). This has been presented by Deloitte who conducted a survey across 44 countries which covered areas of North America, Latin America, Western and Eastern Europe, Middle East, Africa, and Asia specific (Deloitte, 2024, p.2). Findings revealed that sustainability is an area of concern influencing the respondents' behaviours, 30% of Gen Z consumers stated that they research the environmental impact of a company prior to investing money into any product or service they offer (Deloitte, 2024, p.16). This presents that across nations, sustainability is a topic that is gaining significant attention and has begun to shape the brands in which Gen Z consumers prefer to associate themselves with. Although, it is worth understanding that Gen Z consumers have been more concerned with brands aligning with current topics, such as sustainability, significantly in Western nations compared to other areas of the world (Amed et al., 2019, p.47). Studies by Al-Naqbi & Alshannag (2018, p.570-571) have found that undergraduate students within the UAE have presented a positive attitude, and behaviour

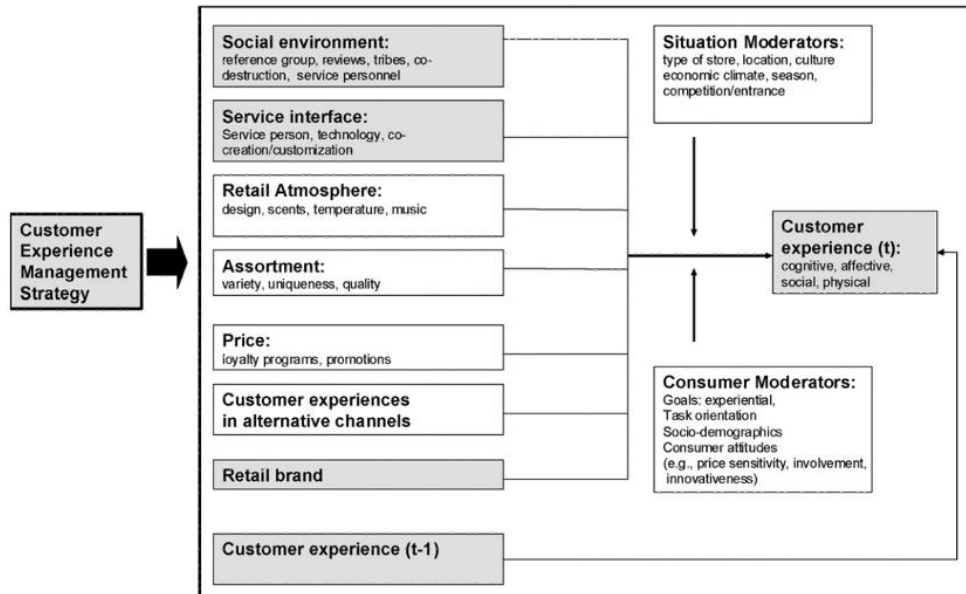
towards sustainable developments. However, according to Pradeep & Pradeep (2023, p.2) there is not sufficient research obtained surrounding consumers attitudes, knowledge and pro-environmental behaviours of Gen Z, UAE residents when making more sustainable fashion choices. The effects of digitalization on the sustainability of the fashion sector is a rising topic of research, one that is constantly lacking in a holistic outlook due to not enough attention being given to developing cultural awareness (Malin & Ryder, 2018, as cited in Casciani et al.2022, p.774). More curiosity should be assigned to culture as this could help digest existing ideologies surrounding sustainability, especially since fashion is “one of the most culturally intensive industries” (Bertola et al., 2016; Martin & Vacca, 2018, as cited in Casciani et al.,2022, p.774).

The next section will unpack what the term consumer experience means, this will help in understanding Gen Z’s perceptions and engagement with the emerging technology when it comes to the fashion space by comprehending what the ‘experience’ truly entails.

2.4 Consumer Experience and Decision-Making

Consumer experience, in academic literature, is understood as "a strategic process for creating holistic consumer value, achieving differentiation, and sustainable competitive advantage" (Pine & Gilmore, 1998, p.2; Verhoef et al., 2009, p.31; Carbone & Haeckel, 1994 as cited in Jain et al., 2017, p.642). This can be further demonstrated through Figure 2, which depicts the consumer experience to be incorporative of various elements that engage the consumers' cognitive (think), affective (feel), physical responses (act), and social identity (relate) toward the brand (Verhoef et al., 2009, p.32; Verhoef et al., 2018, p.70).

Conceptual Model of Customer Experience Creation



'Conceptual model of consumer experience creation' - Figure 2

(Verhoef et al., 2009, p.32).

A core difference between traditional marketing and experiential marketing is that traditional marketing focuses more on the benefits and features of the product, such as the product's primary purpose (Schmitt, 1999, p.55). On the contrary, experiential marketing is more customer-centric; therefore, the internal values (e.g., sensory, emotional, cognitive, behavioural, and relational) tend to displace the more functional values, such as what the product serves as a primary purpose (Schmitt, 1999, p.57). Experiential marketers know that consumers are rational but also emotional beings; therefore, they aim to curate an overall pleasurable experience for individuals (Schmitt, 1999, p.53). The widespread interest in experiential marketing currently exists due to the extensive adoption of technology (Urdea et al., 2021, p.3). In the context of digital fashion and VTO, it must be considered that new opportunities become available for consumers as technology evolves. Therefore, a more current definition is necessary to increase the temporal validity. Consumers expect brands to meet their needs and for this to be achieved, retailers must stay informed and up to date, since each experiential marketing feature can have a significant influence on the consumers' decision-making process (Urdea et al., 2021, p.3-4). Current trends that are being integrated into consumer experiences include artificial intelligence, augmented reality and omnichannel experiences these features are delivered through a personalised manner to consumers (Urdea

et al., 2021, p.1-3). An "experience" is the outcome of interaction between a company and a customer often triggered by the retailers who drive the interaction process (Mehmetoglu & Engen, 2011, p. 241; Verhoef et al., 2009, p.32). It is important to recognize that brand experiences are subjective. Consumers' reactions are often based on unique internal sensations evoked, meaning one person's experience is likely to differ from another (Verhoef et al., 2009, p.32; Schmitt, 1999, p.53-58).

Examining consumer experience is a significant research challenge that continues to grow due to the intricacy of customer touchpoints (Lemon & Verhoef, 2016, p.69-70). There are various touchpoints within the consumer journey, some of which retailers can design and control. These are known as 'brand-owned touchpoints' and include in-store and online aesthetics, assortment, and pricing (Lemon & Verhoef, 2016, p.76). The aesthetics encompass layout, design, decorations, and installations (Alexander & Alvarado, 2014, p.32). Assortments can be defined in relation to brands that should obtain familiar items for the consumer. However, these items should also have a unique selling point to make them worth investing in (Verhoef et al., 2009, p.32). Lastly, pricing is self-explanatory, but sustainability will be considered in this research to understand if consumers are willing to invest more in a higher priced sustainable option and what this means for their consumer experience (Urdea et al., 2021, p.1).

On the contrary, other elements become increasingly difficult for retailers to create, manage, and control in each consumer's journey within the fashion sphere and these are known as 'customer-owned touch points.' (Lemon & Verhoef, 2016, p.69).

An example of a 'customer owned touch point' include social influence from other people surrounding purchasing or not purchasing an item. Another example is the occasion for which the consumer is shopping. Additional factors that can influence the experiences include an individual's "personality traits, socio-demographics, location, and situational circumstances" (Verhoef et al., 2009, p.33).

To comprehend a person's shopping habits, situational moderators could be a suitable method for forming a foundational basis towards the start of the interview process. This section will begin by asking questions about shopping habits and purchasing choices, followed by brand-owned touchpoints and consumer-owned touchpoints (Verhoef et al., 2009, p.33). Lastly, questions surrounding consumers' multi-sensory experience will be

outlined, as well as what atmospheric cues individuals enjoy seeing when shopping either online, offline, or both (Alexander & Alvarado, 2014, p.35).

Lee & Xu (2019, p.1) notes that there is an upheld belief that a positive consumer experience leads to better sales, increased consumer loyalty, and positive (e) word of mouth (Lemon & Verhoef, 2016, pp. 69-70). Since control is no longer easily obtained over consumer experiences, developing awareness through research can help brands better understand consumers, providing valuable information that could result in businesses thriving.

The selected questions help inform our understanding of customers' habits, perceptions, and drivers before delving into their technological acceptance. Eventually, this research will focus on VTO and explore this further to create a holistic overview.

Verhoef (2009) and Alexander & Alvarado (2014) inspired and adopted the main aspects of the questions for this segment. The factors included and considered have also been informed by the previous academic definitions alluded to earlier in this section.

Numerous studies have explored the consumer experience and digital fashion, although few have focused on the meanings behind consumer behaviours (Hwangbo et al., 2020, p. 4).

Therefore, this study will use Figure 2 to help interpret the qualitative meanings linking this back to digital fashion. This is to determine how technological advancements influence an individual's purchase intention and shopping journey by discussing factors such as assortments, pricing and location.

Consumer experience alludes to the importance of both attitude towards a product, and the intention of purchasing the product through an online space. The added emphasis differentiating this definition from others is that it accounts for the digital sphere (Hwangbo et al., 2020, p. 4). Achieving seamlessness between the physical and digital worlds is critical to transforming the consumer experience (Alexander & Alvarado, 2014, p. 32). Companies can offer a virtual experience in order to contribute to a positive consumer experience, enabling engagement and personalization (Urdea et al., 2021, p.6). The physical and digital worlds will be essential to this research as we examine the post-COVID era. Technological advancements have resulted in more complexity when defining the term consumer experience. As the world progresses in the direction of digitalization, consumer behaviour and their responses correspondingly shift and change over time (Lemon & Verhoef, 2016, p. 89). This has resulted in more attempts to define the term and reflect reality today.

To keep up with the existing trends and manage consumer experience more effectively in the current fragmented market, retailers must remain flexible in their approach within the marketing domain (Lemon & Verhoef, 2016, p. 89). Retailers must understand that the definition of consumer experience is dynamic and will continue to evolve with time and technological change.

Technology integration in the shopping sphere has significantly impacted the interaction between retailers and consumers, allowing for more personalized services, optimized logistics, and a better understanding of consumer preferences (Bharadwaj et al., 2009, as cited in Alexander & Alvarado, 2014, p.32). As companies strive to become more customer-centric and implement new marketing tactics, further research is necessary to understand what consumers prioritize in their shopping journey (Lemon & Verhoef, 2016, p. 89).

Consumer experience has been found to link closely to the decision-making process. It accounts for how consumers respond to a product or service and what influences their purchase behaviour. Consumer psychology plays a core role, including both cognitive and emotional aspects. Moreover, it entails how consumer touch points, such as family or friends, impact consumer motivations and decisions toward products or retailers. (Stankevich, 2017, p.7). Schmitt (1999, p.58-59) states consumer experience is a multi-dimensional, holistic construct. It encompasses accumulating feelings, attitudes, and perceptions (Lee & Xu, 2019, p.4). While the concept of customer experience has been widely discussed in previous academic literature (Alvarado, 2014; Lemon & Verhoef, 2016; Lee & Xu, 2019) more clarity is needed on what the consumer experience entirely entails as there is a lack of consistency in the definition across disciplines, from academic conceptualization to business application (Jain et al., 2017, p.658). Therefore, this section defines consumer experience incorporating various supporting definitions to capture the concept comprehensively and consistently. This will assist in accurately recording Gen Z experiences post-pandemic in the UAE during the qualitative interviews that will commence.

The consumer decision-making model could provide a basis for understanding consumers' shopping habits, and perceptions that surround digital fashion and sustainability, and the ethical implications they pose.

For the purpose of this research the most suitable model found in academic literature is proposed by (Voramontri & Klieb, (2019, p. 213-214). Although, the consumer's decision

process consists of various stages; There are three relevant stages identified for this research; ‘need for recognition’ and ‘information search’, as well as the ‘evaluation of alternatives’ (Voramontri & Klieb, 2019, p. 213-214). Technology has been found to play a vital role, particularly in the evaluation stage of alternatives and, therefore, contributes to shaping the purchasing decisions made (Voramontri & Klieb, 2019, p.214).

The need for recognition is the first stage of the buyer decision process. This stage is precipitated by either an internal stimulus—such as physiological demands of hunger or thirst triggering necessary attention—or an external stimulus, which often extends beyond primary needs, such as exposure to advertising (Voramontri & Klieb, 2019, pp. 213-214). This leads to individuals acknowledging a difference between their current and desired state, affecting the purchase decision process (Voramontri & Klieb, 2019, p.213-214).

Next is the information stage, when the consumer searches to identify available options. The internal knowledge should be sufficient for the external search to occur effectively. External sources could include trusted individuals within our network, commercial sources, and reviews through online sites. These come together to create a bigger picture and a more reliable assessment. Information gathering only stops when there is a saturation of knowledge obtained (Voramontri & Klieb, 2019, p.214).

After the information has been gathered, the evaluation of alternatives takes place; the consumer assesses the other available product choices and eventually arrives at a purchase decision (Voramontri & Klieb, 2019, p.214). This is intertwined with the previous stage. The aim is to narrow down the options to make a final decision; in this stage, beliefs, attitudes, and intentions influence and impact purchases (Voramontri & Klieb, 2019, p.214).

This suggests consumers have a rationale for specific variables influencing their decisions and perceptions. Questions can, therefore, be framed using this model to examine perceptions surrounding sustainability and purchase intent.

The next section will explore the term ‘customization’ and what this means with digital fashion, this will also reveal how data collection and differentiation lead to a more personalised consumer experience.

Consumer experience is operationalized for readers to digest what the consumer experience entirely entails, and Figure 2 will be used to guide the researchers; understanding of the term as defined by Lemon & Verhoef (2016).

2.5 Customization

Customization is closely associated with fashion-driven technological advancements, and it is presented to be a significant marketing tool. By the year 2030, the entire shopping experience is predicted to become highly personalized and customized due to the availability of data gathered on individuals (Canarslan & Bariş, 2021, p.1; Nobile & Cantoni, 2022, p. 665). The interactivity between consumers and brands is a catalyst for obtaining knowledge about the consumer's tastes and preferences (Srinivasan et al., 2002, p.43). This assists the retailer in successfully tailoring their products to the individual, and recommendations are formed based on the products consumers have shown previous interest in, making the shopping experience easier and more seamless for consumers (Srinivasan et al., 2002, p.43; Rathore, 2021, p.56).

Consumers have a wide range of options when shopping online, and can easily access different retailers, as a result, switching or choosing one retailer over another is a simple process (Srinivasan et al., 2002, p.43). There are “millions of websites clamouring for attention” (Srinivasan et al., 2002, p.41). Through customization, retailers can present their brand and products as distinctive, triggering a strong desire among consumers to purchase from the brand that considers this tactic over one that does not (Ribeiro et al., 2017, p.160, as cited in Nobile & Cantoni, 2022, p.667). However, customization extends beyond just the tangible product, and it involves e-retailers differentiating themselves through their services and the curated shopping environments they provide consumers with (Srinivasan et al., 2002, p.42-43). VTO technology is an example of a tool in which brands can adopt to achieve customization. This advancement enables consumer to try on a range of products and they can assess how the product would look on them by opening an application and pointing a camera at themselves (Liu et al., 2020, p.2; Nobile & Cantoni, 2022, p.667). The AR overlay technology depicts a visual representation of how the product would appear over the real world setting that the consumer is located in (Virtual Try-on for Clothing: The Future of Fashion? n.d., para.5).

Customization is vital because consumers want VTO options that fit their body intricacies and expect the camera to detect the best size and fit for them (Virtual Try-on for Clothing: The Future of Fashion? n.d., para.22-26). Having a self-reflective feature is deemed a solution

to overcoming consumers' hesitancy when purchasing garments online (Merle et al., 2012, p. 45). In order for brands to be successful, integrating data from various touchpoints can help improve efficiency and innovation. Utilizing technology and incorporating new advancements means that brands can stay competitive and successful longitudinally, as they would have presented their awareness of their consumers' wants and needs (Rathore, 2021, p.54).

2.6 Technology Acceptance Model (TAM)

TAM is a theoretical framework that helps explain and understand users' acceptance of technology. Two factors have been outlined as essential; the first is 'perceived usefulness,' which is whether an individual believes that using the technology within a particular domain would enhance their experience (Davis, 1985, p. 2; Davis, 1989, p.320). Secondly is 'perceived ease', and this is defined in relation to whether the individual believes using the technology within a particular domain would result in a reduced or eliminated mental and physical effort from being exerted (Davis, 1985, p. 26; Davis, 1989, p.320). The TAM suggests that 'perceived usefulness' and 'ease of use' have an impact on an individual's (1) attitude towards the use of the technology (ATU) (Davis, 1985, p.24). ATU is the individuals' reaction to and beliefs surrounding technology. This means, if technology is perceived as useful and easy to use, this results in a positive attitude and a higher (2) behavioural intention (BI) towards using the technology (Davis, 1985, p.24). BI can be defined as how likely an individual will use the technology (Davis, 1985, p.17). The BI of a person informs the next stage (3), which is actual use (AU) (Davis, 1985, p. 2-55). This means that if technology is positively perceived, it is useful and easy to use, this curates a positive attitude and an increased intention towards using the technology, in turn, results in the adaptation and the actual use of the technology within a particular domain (Davis, 1985, p.17-24). Figure 3 presents a simplified overview of the factors and two out of the three mentioned stages.

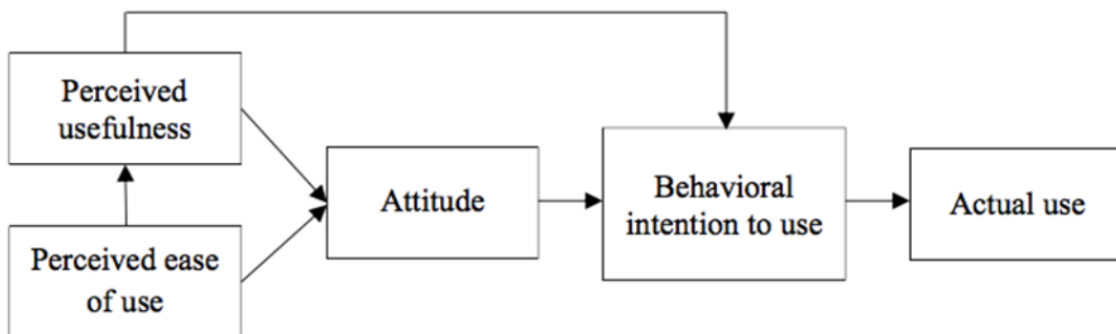


Figure 3. “Technology Acceptance Model” (Davis, 1989, as cited in Rasull et al., 2019, p.4)

The TAM will guide this research, informing potential questions for the interviews. The primary motivation for using this model is to improve the existing understanding of users’ acceptance process (Davis, 1985, p.2). Additionally, it provides “user acceptance testing,” enabling the examination and evaluation of new systems such as VTO before they are adopted and implemented by brands and retailers (Davis, 1985, p.7).

TAM has been found to be helpful in an array of settings and is valuable across different disciplines where technology is part of the context (Davis, 1985; Baron et al., 2006, p.117). Digital fashion incorporates technology, making this model relevant for understanding Gen Z consumer perception and engagement with emerging technology as an assisting tool to support fashion purchasing. Furthermore, the model can be further expanded to examine a broader range of variables and to gain deeper insights into consumers’ acceptance and behavioural habits (Davis, 1985; Baron et al., 2006, p.116-117).

3. Methods

3.1 Research Design

In this chapter, the methodology for the research will be outlined, drawing upon the design, sampling, data collection, and operationalization of key terms. Lastly, the data analysis process is introduced, and ethical considerations are accounted for.

The data collection method for this study was in-depth interviews that took a semi-structured approach which was chosen as qualitative interviews are fundamentally conversational and involve the interchange of dialogue between two or more people surrounding a topic of mutual interest (Birkman, 2020, p.425). It involves the interviewees talking while the researcher listens to learn about the samples' experiences of the world, their thoughts, and feelings surrounding in this case, VTOs (Birkman, 2020, p.424). In-depth interviews consist of open-ended questions that encourage detailed accounts to be shared by the interviewees (Rutledge & Hogg, 2020, p.2). This approach was helpful as the researcher could gain insights into the interviewee's subjective perceptions and experiences (Birkman, 2020, p.425). Descriptive elements are revealed through delving into participants' existing views, opinions, and perspectives (Branthwaite & Patterson, 2011, p.439). Furthermore, qualitative in-depth interviews are instrumental in understanding attitudes and the underlying beliefs that have informed the existing perceptions (Branthwaite & Patterson, 2011, p.439). It is insightful to capture the context, as this provides a holistic, comprehensive understanding of what the respondent is trying to express (Branthwaite & Patterson, 2011, p.439).

Qualitative methodology was found to align closely with the intentions of this research as this paper intended to encapsulate Gen Z consumers' perceptions and experiences surrounding the use of VTO technology as an assisting tactic in fashion shopping post-pandemic. If quantitative methodology was adopted, this would divert the focus of the research and reduce diverse experiences into a numerical form, which would limit vital insights from being obtained (Sebele-Mpofu, 2021, p.1-12). Qualitative research was deemed favourable to this study due to the approach being detail-oriented, adaptable and it provides space for anything ambiguous to be addressed.

The interviews were conducted using a semi-structured approach, which allowed for a relatively extensive pre-planned interview guide to be produced based on the literature review. This guide served as a flexible tool, providing a guideline for the direction the

conversation should flow (Sheetal et al., 2022, p.57). The semi-structured approach was chosen for its ability to provide space for clarification, particularly in the case of this complex topic that may require further explanation and elaboration to ensure interviewees correctly understand the questions or critical concepts (Flick, 2018, p.324). This approach also allowed for the freedom to ask follow-up questions if an interviewee mentioned an interesting point that could be beneficial for further analysis (Chan et al., 2023, p.9). Participants were encouraged to share other concerns or ideas that were not mentioned in the interview questions towards the end of the interview process. The interview guide can be found in the Appendix labelled as B.

Prior to the data collection stage, a pilot interview was conducted with the set of questions presented in the interview guide. This way, any issues found in the research questions clarity or lexical choices were spotted early on and altered before the beginning of the data collection process. There are a different number of questions per theme. However, as this took a semi-structured approach, additional remarks were made, as well as explanations and prompts to enhance the depth and clarity obtained on the interviewee's perspective (Rutledge & Hogg, 2020, p.2).

3.2 Sample and Sampling Method

The criterion used to determine eligibility of participants for this research considered three key factors, 1. Generation 2. Readiness to interact with VTO features, and 3. Residency. These will be thoroughly explained within this section.

The first criterion was that the participant had to be a Gen Z, which can be defined as individuals born between the years 1995 and 2010. Gen Z was selected as a demographic due to their significant buying power, which has increased with the outbreak of COVID-19; according to research in 2020, they represent "40 % of global consumers". (Kahawandala et al., 2020, p.158). Therefore, they are an essential segment to examine to offer insights for businesses to position themselves better (Susanto et al., 2023, p.190). Gen Z are born as 'digital natives' (Susanto et al., 2023, p.188); therefore, having interacted with any form of digital fashion or VTO is also a highly realistic requirement. However, to ensure that the experience is still fresh in the participant's mind whether or not they have attempted this in the past. All the selected participants were sent a link to use a VTO feature of the Farfetch application before the interview; the use of the Farfetch feature was mandatory as this meant

participants could reflect on and share their experiences, increasing the accuracy of the self-report given as this would still be fresh in their mind. If, for any reason, participants did not manage to use the Farfetch VTO feature or could not access the link provided, there will be time allocated for participants to do this in real-time during the interview.

This leads to the second criterion, which was informed by Plotkina & Saurel (2019, p.1-3), who found, AR research has primarily focused on jewellery, glasses, or makeup. Therefore, this research sample included interviewees who have interacted with any form of digital fashion or are willing to interact with features not limited to just jewellery, glasses, and makeup. The interviewees, therefore, were presented with the Farfetch feature of Nike Dunks to encapsulate consumers' fashion experience beyond accessories and beauty as these are the segments that have been researched the most, and those areas of research cannot necessarily be generalised to reflect the rest of the fashion sphere. Another reason the Nike Dunks were selected is because it is a product that could be appealing to both a male and female consumer making it a good option for experimentation, this point is expanded upon further in the ethics section.

Lastly, the country of research was the UAE due to accessibility to the sample and involvement in the e-commerce sector. Between 2019 and 2021, there was an "84.6% surge in online sales, which was enhanced by the global pandemic that took place, making this a relevant nation to examine (Geronimo, 2023, para.5). Previous research based in the UAE has found that majority of the UAE's population consists of immigrants (Aw et al., 2011, p.1642). As a result, there are constant changes in the number of expats entering and exiting the country, which could result in the sample not necessarily being entirely representative in the long-term. This paper does account for that, and therefore, the main criterion surrounding geographical location is that participant must either currently live in the UAE or have lived there in the past; however, this must be during/post the global pandemic period (Seetharaman et al., 2017, p.406).

The UAE's leading e-commerce segments ranking based on the market share in 2023 found that fashion was the second highest at 27%, with toys and DIY being the only segment that was more highly rated by a difference of 2% (Statista Research Department, 2023, para.1-2). According to Cambridge dictionary DIY stands for 'do-it-yourself,' in other words, it is defined as an activity that includes either decorating or repairing items for yourself rather than paying someone else to do it for you (Cambridge Dictionary, n.d., para.1). The high

rating this category received can be partially explained by the restrictions surrounding COVID-19 (Statista Research Department, n.d, para.1-2). This illustrates the prominence and vitality of exploring the e-commerce sector in the UAE based on the statistics and findings presented post-pandemic.

The sample for this research were recruited through social media platforms, and the topic of study was mentioned with personalised messages offered to those who have presented an interest in taking part, those individuals were filtered further in order to only include suitable candidates that fit the criteria for this research.

The sampling method that was implemented is purposeful sampling, which involves selecting participants based on a specific criterion that makes them relevant for this research (Emmel, 2013, p.33-34). This method's rationale ensures that information-rich participants are selected to learn significant information about digital fashion and consumer experience (Emmel, 2013, p.33-34).

Snowballing was also used as a sampling method alongside purposeful sampling. This technique enabled the researcher to ask participants for recommendations of other individuals who may be potentially suited or relevant to the research topic explored (Mweshi & Sakyi, 2020, p.13). The participant sample size grew as more recommendations of potential participants were made (Mweshi & Sakyi, 2020, p.13).

This research was inclusive of both males and females to prevent gender bias and ensure that the results present various perspectives, preferences, and experiences across the genders. Moreover, previous research on fashion purchasing focused primarily on students or females (Blázquez, 2014, p.103). Therefore, this research wanted to broaden the sample of individuals examined as there are few empirical and theoretical studies when it comes to men's fashion consumption habits (Barry, 2015, p.147).

3.3 Data Collection

There were around 200 potential participants contacted and invited to take part in the research. The message sent to the potential participants provided an overview of the study's goals, the duration of research and the format of the interview. There was also information provided to participants surrounding the confidentiality of their personal information and how they can withdraw from the research at any given time.

The final sample recruited consisted of eleven participants and all eleven interviews were scheduled between April 10th and April 22nd, 2024. The duration of each interview ranged from 45 minutes to 70 minutes each. The link to the Microsoft Teams was sent to the interviewees via email, which they had provided the researcher with before the date of the interview.

Interviewees were asked for permission before a voice recording of the interview took place. An icebreaker question was presented at the start of the interview in order to encourage participants to share their perceptions, opinions, thoughts, and recommendations surrounding the topic.

All the interviews were conducted online through Microsoft Teams; this was chosen as a software as it enables the interview to be recorded and offers access to a transcribing tool embedded into the program, which is used for transcribing verbatim, however, the transcribing was also manually checked on the same day after the interviews took place, to ensure the information is still clear in the researcher's mind and to ensure it is accurate. The researcher verbally summarised the key points made at the end of each theme during the interviews, this assisted in increasing the descriptive validity and ensured that the data was understood and interpreted correctly increasing the accuracy. Furthermore, notes were taken during the interviews and used to support the transcriptions. This provided in-the-moment experiences, which were beneficial in making the interpretations and offering insightful information (Qu & Dumay, 2011, p.248). In accumulation, 321 pages of transcripts were generated. In appendix A, the most relevant characteristics of the participants are presented.

The interviews were conducted online because of the geographical access this provides as the researcher is not based in the UAE. Therefore, completing this face-to-face would have been very expensive and time-consuming (Opdenakker, 2006, p.4). The researcher is aware of the benefits that face-to-face interviews offer when it comes to providing social cues such

as space for assessing the voice, body language, and facial expression of the respondents, as this could provide the researcher with a significant amount of information which can contribute to the analysis and interpretation (Opdenakker, 2006, p.3).

The ability to physically see the other person during the interview as well is beneficial when it comes to creating an ambiance because the interviewee this way has an awareness of where the individual is situated, which can be more difficult when interviewing through exclusively audio; this also makes it more challenging to make the situation standardized in nature (Opdenakker, 2006, p.4-8). However, regardless of the benefits, the decision to use audio only for this research was informed by academics who argue that online interviews are just as effective as face-to-face interviews (Rutledge & Hogg, 2020, p.2). Furthermore, it has been found that a lack of non-verbal cues could be beneficial when examining an international country like the United Arab Emirates because it reduces miscommunication and misinterpretation (Opdenakker, 2006, p.4). UAE has diverse nationalities coexisting within one country. Therefore, the facial expressions or body language cues that may have been presented could mean one thing in one country and something completely different in another, making it more complex to interpret accurately across such an international nation (Opdenakker, 2006, p.4). However, audio only recordings still enabled attention to be paid to social cues such as voice and intonation, which are crucial in qualitative research (Opdenakker, 2006, p.5).

3.4 Operationalization

To examine consumers' perceptions and engagement with emerging technology (VTO) within the fashion space, an interview guide was created to assist in the interview process. The guide has been informed by relevant literature and examples of questions and corresponding themes can be found in Appendix B (interview guide).

This guide is divided into three themes: (1) general questions about demographics and fun icebreaker questions, theme (2) is shopping habits. This examines consumers' experience in the fashion shopping domain on a broad spectrum. Individuals were asked to describe what influences their purchasing intention, what stores they tend to prefer, and what would influence an individual to purchase from one place over another.

Sub-themes within theme (2) of shopping habits, is 'Fashion and Technologies' and 'Digital fashion and VTO'. Here, individuals were asked questions about their use of technology when shopping and their level of dependence on technology. It addresses the interviewee's understanding of digital fashion and their perception of VTO platforms. The two sub-themes are somewhat connected, as an individual's perception of technology could impact their response to digital fashion and their desire or lack thereof to use VTO.

After this, (3) consumer experience is presented with questions surrounding using VTO platforms, whether the interviewee believes there is value in using VTO to enhance their shopping experience, and how this would potentially impact their current shopping behaviour.

The section on sustainability was removed. This is primarily to see if it is mentioned organically to avoid being leading, as this could result in social desirability or demand characteristics arising.

Therefore, prompts have been prepared for what questions can be asked if an interviewee mentions anything relevant to ethical purchasing, the frequency of returns, thrift stores, or second-hand fashion.

Appendix E contains the operationalization table, which presents how the theories have informed the researchers' understanding of key terms and how they can be used for the research. Example questions are also provided for each key term, as this operationalization table will act as a measuring tool to turn-key concepts into measurable observations.

3.5 Data Analysis

Thematic analysis was selected for the data analysis process as this was found to be suitable for uncovering patterns within consumer behavior, allowing for the grouping of these opinions, perspectives, and experiences (Clarke & Braun, 2016, p.297-298).

Thematic analysis is a systematic process to derive codes and themes from qualitative data. According to Clarke and Braun (2016, p.297), codes represent the smallest element of analysis and capture critical data features relevant to the research question. These codes serve as building blocks for themes. Themes are broader patterns of meaning that reflect a common important idea (Braun & Clarke, 2006, p.10). In other words, a theme essentially is a frame that encapsulates something vital about the data in relation to the phenomenon or the research

question explored. However, it is worth realising that not all aspects of the data are relevant (Clarke & Braun, 2016, p. 297).

Another reason for the choosing of thematic analysis is because, although pre-existing frameworks can form a foundation for our understanding, emerging themes and patterns are still derived from the data gathered (Nowell et al., 2017, p.2). Themes help researchers stay organized and present their findings meaningfully, but thematic analysis also provides researchers with a flexible and interpretive approach to data analysis. Especially when exploring understudied areas (Nowell et al., 2017, p.8-10). In this case, an example is digital fashion.

This research combined both deductive and inductive analysis. The deductive analysis (top-down/theory-informed approach) is illustrated through the column ‘dimensions of concepts’ in the operationalization table which can be found in appendix E. It has been developed based on the academic literature synthesized in the theoretical framework prior to the interviews commencing (Braun & Clarke, 2006, p.12).

The decision to incorporate inductive analysis had been informed by literature that stated data that primarily is informed by deductive analysis (theory-based pre-conceptions), tends to be less rich in description and presents a more reductionist perspective in the analysis obtained (Braun & Clarke, 2006 p.12; Byrne, 2021, p.1396). Therefore, to offer an academically rich foundation, a deductive approach was used to depict how theory helps in recognizing appropriate data that could fit into the existing bridging themes.

Data-driven analysis was also presented to provide in-depth consumer accounts, which are deemed just as essential. Both deductive and inductive analysis complement one another in uncovering emerging themes that the theory alone would not have captured (Braun & Clarke, 2006, p.7). This is when vague theoretical concepts can be turned into more meaningful inductive categories (Hwangbo et al., 2020, p.8).

There are six phases identified by Braun & Clarke (2006, p.16-23) for thematic analysis.

The first phase is ‘familiarizing yourself with the data.’ The researcher familiarized themselves with the data through conducting the interviews. The researcher immersed herself in the 321 pages of generated transcripts, which were given close attention to ensure alignment between what was said in the recordings and the written transcripts to increase

accuracy. To ensure the depth of the data was processed and familiar to the researcher, all the recordings were listened to, and repeated reading of the notes and summaries from each interview took place, intending to find patterns and meanings before the coding stage occurs (Braun & Clarke, 2006, p.16)

The second phase was 'generating initial codes.' The researcher made a list of initial ideas about what interests them within the data and identified initial and open codes. The researcher also highlighted aspects of the data that were deemed valuable or relevant for the research in different colours, which, in turn, assisted in narrowing the data down and identifying specific segments of the data (Braun & Clarke, 2006, p.19). Examples of open codes generated include 'enhanced level of convivence' and 'improves stylistic visualisation'.

The third phase was 'searching for themes.' At this stage, relevant data was organised into broad themes and more focused sub-themes that were informed by the codes. There was a total of five selective themes and fourteen axial codes. An example of a broad theme is 'VTO as unreliable' and an example of a subtheme within that is 'fit trust'. This depicts the researchers' thought process about the relationship between themes and the existing sub-themes within them. It is worth noting that some of the codes were eventually discarded as they were deemed invaluable in directly answering the research question (Braun & Clarke, 2006, p.19-20).

The fourth phase is 'reviewing themes.' The themes were reviewed and refined in terms of the wording to ensure they captured and encapsulated what was necessary; the themes were grouped according to how relevant they were to one another. Two separate themes, such as VTO as sustainable and VTO as consumeristic. Were found to be overlapping and, therefore, ended up collapsing together to form one theme titled 'VTO and sustainability' addressing both perspectives of how it increases sustainability, and how it is also perceived to promote over-consumption (Braun & Clarke, 2006, p.20).

After that was phase 5, 'defining and naming' - at this phase, the researcher defined and further refined the existing themes; this is where the essence of what each theme is about was identified and what aspect of the data in each theme attempts to capture (Braun & Clarke, 2006, p.22).

Lastly is phase 6 which is when the final report was produced (Braun & Clarke, 2006, p.16-23). The findings were written out to simplify the complex story of the data and this offers a concise and logical account of the story offering evidence and quotes within each theme, this does not only report on the data but also provides supporting theoretical backing

up and statistics to support the narrative and story told with the intention of making an argument that assists in responding the research question at the concluding stage.

3.6 Ethics, credibility, and reliability

The researcher involved in the data collection is the same researcher that analysed the data; therefore, they will already have pre-existing knowledge of the data, and potentially have specific analytic thoughts that begin to formulate during and after the interview has been conducted and throughout the size identified phases of thematic analysis (Braun & Clarke, 2006, p.16).

Participants who intend to participate in the interviews will need to obtain informed written consent. Consent forms were distributed to interviewees prior to the day of when the interviews took place. This provided participants the freedom to go over their rights and their role in the interview process and clarify any concerns prior to signing the consent form to ensure everything is clear. In the consent form it also states in simple terms, what the study is about, outlining the aims and objectives. An unsigned copy of the consent form that was distributed to participants can be found in the thesis appendix titled D. Consent ensures participants are aware of their freedom to decide if they want to participate in research or not; this means it is voluntary and not against their wishes in any way (Klykken, 2021, p.795).

At the start of the interview, an introductory text was read out to participants, providing them with a reminder of their rights and their ability to withdraw their results from the research at any given moment, it also provided space for participants to ask any questions they may have. Furthermore, participants were guaranteed that the study will hold strict confidentiality regarding the data the interviewees provide during the interview process (Sheetal et al., 2022, p.57).

Before data collection, conducting the pilot interview brought to the researcher's attention that not all individuals would feel comfortable using VTO when it comes to clothing; the concept of pointing a camera at themselves may be uncomfortable. Furthermore, the literature surrounding privacy concerns, geographical detection, and biometrical information being collected also helped inform the researchers' decision to use shoes as the

VTO feature participants would use (Carter & Egliston, 2020, pp. 10-11). This is to avoid privacy risks and concerns arising during the interview process and to closely abide by ethical standards.

Another ethical implication is that descriptive validity is important in qualitative research; this ensures that the researcher does not distort the interviewees' information, experiences, or situations (Hayashi et al., 2019, p.100). Therefore, the descriptive validity of the data obtained during the interview process will be increased as the researcher will summarise the main points they understood after every category of questions; this allowed interviewees to either confirm the researcher's interpretation or deny what has been said. At times, the respondents contributed further to what has been summarized by discussing, correcting, or adding further perceptions, experiences, and feelings that helped with improving the interpretation process and beyond that at the coding stage.

Reliability can be defined in relation to how consistent the results obtained are and how accurately they represent the sample of individuals investigated (Golafshani, 2015, p.601). This research takes a qualitative and semi-structured approach to interviewing; therefore, the findings are not likely to be identical if replicated by other researchers. However, to increase the reliability, an interview guide with the set interview questions that were asked during all eleven interviews is provided in the appendix B. Furthermore, to increase the reliability of the interview process as a whole, audio recordings were made of the interviews, and transcription was generated from every single interview verbatim, with notes made throughout the interviews to capture the details and ensure the researcher is actively listening and focused throughout the process, this also helps provide a basis and understanding for future researchers to grasp where the interpretations or conclusions derived came from.

4. Results

Consequent to the data analysis process the results identified the singular theme of 'perception.' The TAM guided the identification of themes, in the exploration of participants' views surrounding VTO technology usefulness, ease of use, and how these factors influence their attitudes towards using digital tools. These factors also impact their behavioral intention and, eventually, their actual use of the technological advancements.

The theme and selective codes are partially informed by the concepts introduced in the theoretical framework chapter; however, new ideas and findings are also drawn upon and are informed by the interviews. The table below presents the core codes.

Figure 4 – Coding tree displaying core codes

selective	axial
VTO as enhancing shopping experience	Brands become more accessible
	Helping assess style
	Merging of both worlds
	support decision-making
	time-efficient
VTO as sustainable	More conscious assessment of garments
	Could led to less frequent returns
	Brands can reallocate resources
VTO as unreliable	Not useful in recreating the physical experience
	fit trust
	worries surrounding realism
VTO as inaccessible	Not commonly implemented by existing brands
VTO as not safe to use	Privacy issues

To contextualise the results, it is worth noting the number of individuals who attempted to define what they believe digital fashion is and the individuals who claimed to have had an experience with either VTO or digital fashion. It was found that most of the total sample 9/11 were familiar with the concept and were able to define the term in their own words. At the same time, the remaining two participants claimed to not have any knowledge as to what the term means and asked a follow-up question, hoping for assistance and direction from the researcher in defining the term.

It was also found that 6 out of the 11 individuals had used digital fashion or interacted with VTO in the past, all of whom were female. Interestingly, all the males in the sample had no experience with VTO in the fashion domain. However, 2/3 of the males mentioned past experiences with VR and AR technologies, particularly in furniture and interior design. This could mean that males are open to using technological advancements in the shopping sphere since they have used VR or AR. However, the utilization of these advancements has not extended into the fashion space.

4.1 VTO as Enhancing the Shopping Experience

The findings reveal that participants perceive VTO as an enhancer of the shopping experience, stating this tool makes brands more accessible, helps with the assessment of style and visualization of branded products, provides seamless online-offline experience, supports decision-making, and time efficiency.

Several interviewees expressed they perceive VTO as a tool that enhances their consumer shopping experience. R3 shared that she believes that if “companies adopt this technology, they would, yeah, it would definitely be better for them as well and better for the consumer”. This presents that R3 is accepting of companies adopting such technological advancements and perceives such digital tools as advantageous to both companies and consumers.

R3 went on to question the possibilities of such technological tools, expressing she views them as very advanced and is curious to see how far VTOs can extend in enhancing the consumer shopping experience.

Across data, respondents revealed they perceive technological advancements as tools which can be utilized and incorporated into their shopping journey to enhance their experience. Exemplifying this is the response of R6, who stated VTO’s could help with sizing: “[VTO’s] definitely helps get a better understanding [...] if it is a right fit

[clothing size] for you or not”. This finding is in line with literature of Agrawal, (2022, p.3) who describes Gen Z to be the most tech-savvy generation thus it is expected they perceive VTO to be an enhancer to their shopping experience (Agrawal, 2022, p.3)

All interviewees reported on their experience and engagement with the VTO feature of the Farfetch application which was provided to them prior to the interview. Respondents highlighted the ease-of-use aspect of VTO’s, claiming it enhances their overall shopping experience. All respondents claimed they perceive the VTO feature of Farfetch as a tool that provided them with both ease and comfort within the app. R7 highlighted the use of the tool to be “super quick and fluid, like, it felt natural”. R4 shared an interesting perspective, claiming the use of the tool was “pretty easy” because she is “a Gen Z”. These responses further emphasize and confirm the pre-existing knowledge obtained on the Gen Z demographic, described as a group of individuals with a high technological affinity. This is due to their lifetime experience surrounded by technological devices and tools. Literature defines Gen Z as inseparable to the technological tools in their lives, describing Gen Z to view technology as an "indiscernible instrument and partner"(Moore, 2012; Ozkan and Solmaz, 2015, as cited in Agrawal, 2022, p.3). Thus, the findings on their perceptions are expected, given respondents view them as highly convenient, as R9 puts it “[VTO’s] have everything you [...] look for, right in front of you”.

All the participants interviewed agreed that VTO has the potential to enhance the consumer experience significantly, thereby also benefiting fashion brands and the fashion industry more broadly. When asked how they would perceive VTO’s from a fashion perspective, findings revealed VTO was unanimously perceived as a marketing tactic and a communication tool that increases reach and fosters a closer bond between consumers and the brand. R9: "people might really enjoy virtual try on and that's a consumer I don't want to lose, so I would implement it and I would also probably devote a lot of resources to invest in technologies that would make it better. [...] increase my consumer base”. R7 shared how he would perceive VTO’s as a fashion brand owner claiming VTO’s " could potentially increase (...) our [the brands’] image as a tech Company." Notably, both R7 and R9 are male respondents, who mainly focused on discussing how their target consumer would perceive them positively if VTO was implemented in this discussion depicting their view of the tool as an enhancer.

4.1.1 Assessment of Style

According to the interviewees, VTO is an effective method for analysing fashion styles. R4 states “if I like a style, and it is not going to look good on me virtually, then what are the chances that kind of look is good on me in real life, (...) it's just a very useful tool [with assessing style]”. Aspects from the TAM have been identified as evident within this example, as R2 has presented a positive attitude towards using technology and a positive behavioural intention towards using virtual try-on features more specifically (Davis, 1985, p. 2-55).

Other respondents who have had a similar outlook on VTO include, R10 who says, VTO is “really helpful in terms of being able to match [an outfit with the item you are virtually trying on in this case sneakers] and see how it would look on your foot”. R11 said “It could also help with identifying what colours [of sneakers that were virtually tried on through Farfetch] are the most suitable”. These insights highlight that VTO is perceived to be useful in examining stylistic choices, aesthetics, design, and colour. As VTO has customizable features which transport consumers into a more immersive and imaginative space (Silvestri, 2020 as cited in Casciani et al.,2022, p.3).

The VTO tools, as described by R2, “help consumers digitally visualize how an outfit, or a fashion item would look”. One way in which VTO helps with assessing style is through 'digital visualization', the visual representations, is helpful in further informing consumers of the available garments the brand offers. R4 says, “I’m very much a visual person, so being able to see it on myself um. Is helpful”. This is not an unusual claim, as more than half of the world’s population are visual thinkers (McCue, 2013, para.1).

R5 goes on to say: “I think that virtual-try-ons is something that would make the experience very different, because you can actually visualise what that product is going to look like on you and how you can wear it and not just imagine it on its own”. The interviewee's responses and academic literature illustrates the ability to virtually present the garment onto the consumer's body, helps consumers decide if the product suits them and differentiates the consumer experience offered.

4.1.2 Merging of Both Worlds

Interviewees engaged with digital fashion as it offered them an opportunity to grasp as stated by R8: “a blend of both”: this means combining elements consumers appreciate from both the physical and digital shopping experiences. R8 expands by stating:

“Snapchat integrated (...) metal maps, which is a way for metallics to look more realistic in AR and brands like Tiffany and Cartier and other jewellery brands picked up on that because of its aesthetic effect. You saw like, a bunch of campaigns that came out of that”.

This highlights how leading brands are staying ahead of the trends and developments by adopting the latest innovations to ensure they remain at the forefront of the market. This aligns with literature that surrounds consumer experience, in particular ‘assortments’. This term is defined in relation to how brands maintain some familiar elements for consumers; although, innovation and creation still remains identifiable for the brand to stand out in a saturated market (Verhoef et al., 2009, p.32). In this case the social media platform, Snapchat is familiar, and the brands mentioned by R8 have existed for years and are reputable, the merging of the social media AR features of Snapchat with the timeless luxury jewellery brands is the unique and innovative aspect identified.

R2 goes on to discuss their perception and claims that “[VTO] creates a gate like a like a bridge between the physical store and the online store”. this refers to a seamless and integrated experience implying that it allows for a smooth and effortless transition to occur between both landscapes. A combination of both the physical and digital becomes useful as it diversifies the experience beyond the conventional shopping experience into a multi-dimensional one (Lee & Xu, 2019, p.4). Since brands aim to provide a seamless and holistic consumer experience (Jain et al., 2017, p.642). This illustrates digital fashion as an extension, and an expansion of the brick-and-mortar stores by merging both worlds together to offer a seamless transition between both worlds.

4.1.3 Support Decision-Making

Gen Z are emerging consumers with “distinctive ways to research, consider, purchase, and use products” (Kim et al., 2020, as cited in Agrawal, 2022, p.6). The sample of participants outlined the factors influencing their decision-making when purchasing a garment or accessories, these included price point, material, brand credibility, sustainability, and social media presence. Most of the sample believed that VTO technology would be beneficial in informing their decision-making process beyond the outlined factors. R11 explains this by saying, “For me, it's just seeing [the sneakers] on a white background is hard to envision it but being able to see it on my feet [through VTO] helps me make a decision”. This suggests that although online shopping can be beneficial in visualizing the product, more is required to inform a decision and the outcome, which could lead to a potential purchase. Therefore, this is where the advancement of VTO becomes a valuable tool for consumers to engage with, as they can point the camera at themselves and see how it looks on them in opposed to on a model. When it comes to technology, it has been found that Gen Z consumers have expectations that more electronically driven tools and solutions should be available for them to make informed shopping decisions and quicker transactions by engaging online with their desired brands (Agrawal, 2022,4-5). Therefore, this advancement takes online shopping to a different level.

Furthermore, R5 says that an advantage of VTO is when people can "try on the product virtually, and then you're able to take a screenshot of it and send it to other people, and they can also help you make a decision”. This is in line with the literature, as brands are presented to have the power to control the operations and backend aspects of how the VTO technology is implemented and integrated within their application. However, there are certain aspects within the consumer experience that the retailer will not have control over, and this includes the social influence that could contribute to the decision a consumer makes regarding an item, this is classified to be a form of ‘customer-owned touch point’ (Verhoef et al., 2009, p.33). Furthermore, the consumer-decision making process involves several stages, however, the two most relevant for the illustrated quotes are “information search” and “evaluation of alternatives” (Voramontri & Klieb, 2019, pp. 213-214).

4.1.4 Increases Time Efficiency

More than half of the participants expressed that their engagement with VTO features would be influenced by the desire for a more time-efficient shopping experience. This is in contrast with the time wasted in physical stores, trying on products, commuting, and potentially having to return items. These sentiments were commonly shared by majority of participants (R1, 2, 5, 6, 7, 9, 11), highlighting the efficiency of VTO in saving time and effort.

R2 describes her engagement with VTO by saying, " [VTO] "it's straight to the point and I can also use it from anywhere I want, so it's very portable as well". The portability and ability to use the feature from any location makes this a time-effective tool. R6 went on to make a statement: "[VTO] would just save a lot of time and effort when I'm looking for some specific item rather than casual shopping where I would just be kind of browsing for (...) fun". This refers to certain occasions in which VTO may be deemed more beneficial than in others, depending on what the consumer is seeking. R7 says it is also helpful in the circumstance in which the consumer does not want to commute or have the time capacity to physically try on items in-store. This is when it is seen to be "a big time save". Online shopping provides time and location freedom, which aligns with existing literature (Agrawal, 2022, p.6).

4.2 VTO as Sustainable

Findings reveal respondents perceive VTO as sustainable, this is illustrated by R8, who compares VTO's to the unsustainable nature of physical fashion: "(VTO) doesn't generate waste the way physical fashion does". R9 further reinforces the perception, stating:

"In terms of sustainability, virtual try on (...) technology being used means items wouldn't need to be sent to certain stores (...) unnecessarily, (...) that would be less transportation and result in less cost (...). So, there would be more efficiency in selling items."

This outlook both participants have could be because of Gen Z consumers having high environmental awareness and valuing sustainability (Manley et al., 2023, p. 314). This is a paradox considering they also stand out for their high levels of fast-fashion consumption

(Domínguez et al., 2023, p.2-3). This is exemplified across data, with 45% of the Gen Z interviewees claiming they purchase from fast fashion brands (R:1, 2, 4, 6, 8). All those who claimed they still shop at fast fashion stores mentioned that this is attractive to them due to the 'price-point'; furthermore, R6 adds "sustainability tends to be more expensive". This is in line with the literature, which puts forth that Gen Z consumers are at times limited from transitioning their existing opinions and intentions surrounding sustainable habits into actual purchases due to the lack of affordability (Dragolea et al., 2023, p.17). Regardless of this 27% of interviewees claimed they are moving away from fast-fashion brands and no longer buy from them as they are now focusing more on the quality, sustainability, and durability of the items they purchase, which is not typically found in fast-fashion brands (R: 5, 9, 11). Dragolea et al. (2023, p.17) states that Gen Z consumers have more financial awareness and assess items more closely before investing in them partially to save money, but also to move away from the mindset of prioritising quantity to quality. This suggests that although fast fashion is still the main source of fashion consumption of Gen Z UAE residents, many respondents actively and consciously attempt to shift their purchasing habits toward sustainability. Thus, respondents perceive VTO's as a sustainable tool, revealing they are open and accepting to learning more about this tool, because of their growing inclination towards shifting their habits into becoming more sustainable. Such motivations could be easily achieved through the use of VTO's, since they are a tool that does not require monetary investment directly by the consumer, but instead by the retailer, and many claimed monetary factors influence their inclination towards fast fashion.

Most of the perspectives offered a positive outlook towards VTO as a solution to sustainability and conscious buying, however, there was one negative outlook from a sustainability point of view. Specifically, R3 perceived the landscape of digital fashion and the usage of VTO's to be consumeristic, non-environmentally friendly, and a feature that pushes consumers towards purchasing more frequently, stating: "in my opinion, it has gone out of control, that it's just it makes it so much easier for people to shop. Without thinking though, so it's not really conscious shopping anymore, it's just consumerism at this point and over consumption, which isn't very positive."

An important factor to note is that R3 is an incredibly sustainable consumer, who claimed she exclusively purchases online second-hand vintage and is passionate about sustainable shopping.

This quote references VTO in the fashion landscape to be perceived as an unhelpful development when it comes to improving the world's environmental state.

Interviewee 4 was presented to have a more positive outlook on VTO for the most part but did make a statement that closely aligns with R3. "If I was able to constantly look at the items on myself, I don't know how many items I fall in love with. I kind of fear for my bank account if that becomes an everyday thing *laughs a little* But. Yeah, I think I would be spending a lot more time on it. I'd probably buy a lot more". This encapsulates a common perspective on how VTO could result in promoting consumerism and the purchasing of more items instead of using the garment for as long as possible, or repurposing/ re-wearing already existing pieces available to the individual (Zhang et al., 2019, p.4-5).

4.2.1 More Conscious Assessment of Garments

VTO could contribute positively to sustainability by allowing consumers to consciously assess garments. R3 states: "[VTO] helps a lot in what people can do (...) change the way you shop (...); I think that will get people to be more conscious about what they're buying because they can see themselves in it". Brands adopting technological advancements and innovative tactics that offer an element of customization can help consumers see if they can picture themselves in the product or push them to find something else, they believe might be more suitable for them (Rathore, 2021, p.54; Voramontri & Klieb, 2019, p.214). Another respondent says, "in person, I'm quite a spontaneous shopper (...) I'm just gonna buy it [fashion items] because I don't want to be standing in line or be in people's way. So, I tend to, like, just impulsively buy" (R4). This suggests that VTO platforms and features could enable consumers to take their time and make conscious decisions about what to purchase without worrying about the disorder in the traditional shopping experience. R11 reported on her use of VTO by describing her experience with trying on some shoes:

"I don't like the shoes, so I don't think I'm gonna get them, but I'm glad I got to see what it would look like before me just rush into ordering them (...) we [Gen Z] like things to be easy. We like things to be convenient, so having something easy like this is much more likely. I would say push someone to a purchase. Um, or push them away from it."

This aligns with the TAM, which refers to how the usefulness and ease of technology impacts an individual's attitude towards using it (Davis, 1985, p.24).

A critique has been identified, and that is VTO does not allow individuals to see if the shoes physically feel good on their feet and are comfortable. R1 says "it felt weird because I was like I should be feeling them on me. But they're not there" [this is in relation to interviewees' experience with VTO on the Farfetch application]. The importance of the sensory experience in assessing if the item feels good when it is physically tried on has also been mentioned by other participants (R5, R7, R8, R9, R11).

4.2.2 Less Frequent Returns

VTO is perceived to support the shopping experience by offering a solution that leads to less frequent returns in comparison to when using e-commerce sites; this is illustrated by R5, who expresses their personal view "100%. I know [VTO] will impact the frequency of how often I return a product because I would actually have a vision of what this product would look like [on herself]". VTO is portrayed as a positive innovation that can help increase consumers' confidence in investing in a given product, preventing the need to return a garment. According to scholarly literature, the fashion industry has shown a growing interest in sustainability and digitalization. Technological advancements such as AR are being explored to help meet sustainability objectives (Zhang et al., 2023, p.1971-1972). Similarly, to R5, R6 states, "yea, I think [VTOs] would (...) decrease the number of times that I would, you know, return things [fashion products] because I would have a better idea of how it would look like". Interviewees have expressed their understanding of the environmental impact of returns in the fashion industry, one respondent even described returns to be a "relatively carbon intensive" process (R7). As more parcels are sent back to merchants, increased carbon emissions are being generated, exacerbating the existing environmental impacts (Liu, 2022, para.5; Liu, 2022, p.1). Furthermore, literature outlines that e-commerce results in a significant amount of returned products, ranging from 34% to 46%, mainly due to issues surrounding fit, size, and colour (Berthene 2019, para.2; Periyasamy & Periyasami, 2023, p.4). Therefore, it is an issue within the fashion industry that needs to be attended to.

VTO can be beneficial for the sustainability goals of the fashion industry, and it can also prevent the negative emotions and experiences consumers encounter when it comes to returns. Consumers describe the process of returning items as a ‘hassle’ (R1), ‘frustrating’ (R2), and a ‘headache’ (R7). Therefore, implementing VTO would enhance the consumer experience by reducing these negative experiences. Addressing consumer concerns can be beneficial, as noted by Lee & Xu (2019, p.1), in offering a positive consumer experience, which would increase the chances of the consumer staying loyal to the brand and having a positive e-word of mouth (Lemon & Verhoef, 2016, pp. 69-70).

4.2.3 Reallocating Resources

It has been found that some respondents believe implementing VTO features into the shopping landscape provides room for brands to rethink, reprioritize, and reallocate their resources. This can be illustrated by R1:

"So, I think technology and like, online shopping and websites definitely have the power to minimise that in person contact and therefore cut costs and you could put that money into something better. Into better quality and to better pay for your employees, etcetera".

The fashion industry's emissions, resources, and waste have recently resulted in more government attention. Prominent discussions have focused on the digital sphere, and tech is now a catalyst to solve these issues within the post-pandemic fashion landscape (Mesjar et al., 2023, p.1). This presents Gen Z awareness surrounding existing concerns and an understanding of what areas require more focus from corporations. R8 states:

"Have creators [for example, content creators and public figures who can use their social media presence to influence the public] post with the virtual try on. Um making it a sought-after product before it's even released, maybe before it's even produced, right? So, Um helps you kind of validate your numbers as a brand before you go into execution, like production because you have an expected demand for it, so you don't over produce or under produce".

This quote focuses on the control of the production cycle, and if individuals can try on garments before production, this will increase the chance that all are sold. By investing in advancements such as VTO, brands can cater to consumer demand and focus on factors that interest them the most. This approach fosters an enhanced customer experience that addresses a wide range of factors. As R11 says “you know how [fast fashion brands] make their clothes and how they pretend to be sustainable, but really aren't, so I'd say it's more about focusing on ethics than the size of the brand”. Ethics in this context refers to [labour conditions and pay, and how the materials were sourced]. These are three aspects are also outlined by Mesjar et al. (2023, p.1) when it comes to defining what the term ‘sustainability’ entails. Catering to consumer expectations through the re-allocating resources helps offer a better narrative to consumers, thereby making them feel valued and considered which can potentially increase the loyalty they have towards the brand Lee & Xu (2019, p.1).

To conclude the sustainability section, the three main factors that were perceived to enhance the consumer experience. This included less frequent returns enabled with technological advancements such as VTO. Secondly, more conscious assessment of garments providing consumers with the time to assess and decide on if the garment is right for them, and reallocation of resources. This is when brands can invest their time and energy to meet consumer demands.

4.4 VTO as Unreliable

The VTO features have gained a fair share of criticism. R9 mentions "I find it difficult to compare to, I guess reality of trying on the item, um only because there's so many different things within the item itself that can't be expressed through (...) current technology such as texture”. The implementation of such a tool was found to be perceived as unreliable. This is because, participants believed that the issue would lie in the recreation of the physical consumer experience in the online domain. The core worry stems from the texture and the material of the garment not being consistently reproduced or represented in the digital sphere. Half of the participants mentioned that the garment's material and or the texture was essential to them (these are respondents' numbers: 1, 5, 7, 8, 9, 11).

A key insight of this segment is that the females were more concerned than their male counterparts when it came to physically feeling or holding the garment R11 states: “I really

like to be able to feel the fabric and see how it fits”. This is also interesting as the females in this research had more experience using VTO than the males who took part therefore, it would have been expected for the females to be less concerned.

Past research has found that the consumer experience does involve various elements to engage the consumer, these do include the feel or the physical response that the individual experiences when interacting with the brand (Verhoef et al., 2009, p.32; Verhoef et al., 2018, p.70). Therefore, this value being important to some Gen Z participants is not completely unexpected.

4.2.4 VTO and Fit Trust

Another reason consumers perceived VTO as unreliable was due to the lack of trust surrounding how the garment would fit the consumer. One participant, R5, mentioned, “the imaginary fit of the product [through VTO] might not actually be accurate at all, and it could result in a loss of purchase”. This was a re-occurring perspective found among interviewees as R4 also states, “[VTO] doesn't take into consideration like your whole body if that makes sense, like it won't completely fit true to size”. The discussion around VTO brings to the forefront the importance of precision in enhancing the consumer's shopping journey. It also highlights the potential of personalization and customization. For instance, R4 expected the VR/AR feature to reflect their body shape accurately. This desire for a tailored experience is crucial to VTO's potential and has been depicted through pre-existing blogs that claim consumers want their figure to be accurately accounted for and that they have the expectation that the camera should detect the most suitable size that would fit them the best (Virtual Try-on for Clothing: The Future of Fashion? n.d., para.22-26).

The analysis, guided by R4's insights and the researchers' understanding, explores the increasing customization of the shopping experience. This transformation is primarily driven by rapid technological advancements and the consequent ability for extensive data collection (Canarslan & Barış, 2021, p.1; Nobile & Cantoni, 2022, p. 665).

This perspective aligns with R5's assertions, underlining the crucial role of the reliability of fit and the trust in the feature or brand as perceived and conveyed by participants.

It is worth noting that consumers also expressed concern about the fit whilst online shopping as we know it today. Therefore, the question of reliability in sizing is not exclusive

to VTO but responds more generally to technological advancements in the shopping sphere. R1 mentions 'deceiving' when explaining how brands present clothing online regarding sizing which summarizes consumers' outlook on VTO when it comes to trusting the fit.

4.2.5 VTO and Realism

Some consumers perceive VTO as unreliable. R6: "The only worry I would have is if it [the fashion garment] wasn't realistic enough (...) if it looks great in the virtual try on and then you get it and it's not, you know, like how it was looking on like virtually then it might be an issue". This was a common perception as other participants shared similar views. One other participant that in particular stood out was R10, he stated that if he could change one aspect of VTO it would be surrounding how "It looks a bit artificial, so it looks like (...) a cartoon type of picture. So maybe a bit more realistic". The lack of realism could be a reason that other participants like R11 also believe VTO to be "very gimmicky," as stated in her own words; this is expanded upon further, as she said, "I think it would be fun to see and fun to try, but I don't think it would actually affect my shopping habits". A theoretical basis to help break down the quotes mentioned and understand it more holistically, can be outlined by Hirschman and Holbrook they claim that consumers tend to either want to solve a problem or experience fun and enjoyment from the purchases they intend to make (Childers et al., 2001, p.513). VTO according to the literature review provided, has the initial role of solving an existing issue and behaving as a tool. Although some consumers see this to be more of a fun game, R5 goes as far as to describe this as "adult play time". It makes it an area that requires further consideration regarding how it is being perceived and received by consumers.

4.3 VTO as Inaccessible

Some participants have perceived VTO as in-accessible, as most existing brands have not implemented this feature, and it can still be perceived as a niche development. However, those who have interacted with VTO features embedded in fashion brands have provided examples of Pretty Little Thing (R4), Ray-Ban (R1), and Farfetch (R1-11). Some participants stated they came across or interacted with VTO through VR/AR adverts on social media channels such as Snapchat and Instagram (R:1, 5 ,6 ,11 ,8). This was a larger

sample than those who have used the features embedded within a brand's application. R5 was an example of a participant who claimed that Instagram informed her purchase of a pair of sunglasses, and she ended up buying the product she had virtually tried through the social media application. This suggests that although it is not broadly accessible, it is successful in informing shopping habits when it is used and that consumers would like to have this option made more available to them, which is communicated by the following quotes R8: "In the brands that I have shopped with, they offer limited experience, but I would be interested to have it [VTO] integrated into a seamless customer experience." Another participant, R5 says: "I feel [VTO] it's something that I would really like to see more of." This perspective was commonly found as R9 agreed, saying, "I feel like (...) [VTO] it's a great technology and I look forward to its progression".

The accumulation of responses depicts that the sample of consumers familiar with the development of VTO obtain the desire for technological advancements to be further integrated into the shopping sphere. The reasoning for this could be informed further by academic literature; Gen Z consumers are described as lazy; they seek solutions that provide convincing answers to almost everything. This includes portability and accessibility for online shopping since they would opt for electronic methods of exploring available options to increase the speed at which a transaction occurs (Wood, 2013; Ozkan & Solmaz, 2015; as cited in Agrawal, 2022,11-12). This supports why the Gen Z interviewees presented to be open and accepting of this advancement to be made more readily available and accessible.

4.4 VTO as Unsafe

Some participants have perceived VTO as not safe to use, and this is due to privacy concerns that arise surrounding data collection. From the entire sample of participants interviewed, 3/11 indicated this was a worry; R3 states:

"I do have some concerns about, I guess the privacy. When it comes to specific items, like I said, lingerie *laughs a little*, I think they're it shouldn't be that accepted. And I also think that there should be an age. Not limit, but like I'd said 18 plus, or at least you have to be a consenting adult".

The concern was evident among other participants as well, R5 says: “you are pointing a camera at yourself and sometimes that's a little bit uncomfortable”. R9 expands on all the made points by mentioning: “I just I'm just not comfortable with the with the fact that that my MY information's going to be shared with third parties”. Although the implementation of VTO is positively responded to by most interviewees when it comes to safety, a portion of Gen Z consumers still hold doubt and are unaccepting of VTO.

Gen Zs' are often referred to as the generation that were born into a virtually connected landscape, and as a result, they are constantly seeking new innovative tools to integrate into their day-to-day life. Their high proficiency in using these emerging tools is a clear indication of their technological fluency (Thangavel et al., 2019, p. 712; Tamim, 2022, para. 7). However, this also means that existing concerns surrounding technological advancements and data collection are often overlooked when it comes to this generation (Youn et al., 2023, p.2).

Interviewees' who perceived digital fashion as 'unsafe' were asked a follow-up question; surrounding how brands or retailers can make this less of a concern for them. Respondents mentioned that implementing laws and regulations that could guarantee the safety of those using the feature would help, and end-to-end encryption was also mentioned. Lastly, the vitality of transparency from and between brands and consumers was referred to.

The remaining respondents did not perceive VTO to be associated with serious privacy concerns. An example of two respondents is R4 and R8 [who have a background in Journalism and Design and Technology]. They believed if brands and retailers wanted to collect data, they could do so through various methods, such as connecting to Wi-Fi in public areas and more general e-commerce experiences. R2 shared a similar view of not being concerned she said, “I'm not because I am a media student, and I am aware that a lot of the media has information about us”. These three participants have presented their understanding of data collection being accessible and available to companies, the media, and retailers. The participants' knowledge might be informed by their fields of study as being strongly related to this topic compared to the average consumer, which may have somewhat shaped these perceptions. Furthermore, these insights have exposed that the sample of individuals in this research with a creative background of study had presented a more prominent positive attitude towards using technological advancements and were more accepting of the technology in the fashion space in comparison to the rest of the sample.

To conclude it was found that participants perceive VTO both positively and negatively. Most participants had some knowledge of what digital fashion was and attempted to define the term. Additionally, all participants perceived VTO as positive for the most part, except for R3 who outlined the benefits she believed VTO to have and how it can result in conscious assessment of garments, but also had a contradicting view and this was that digital fashion and VTOs pushes people towards over-consumption and consumerism through how easy the shopping experience becomes when technology is implemented.

Respondents presented their awareness of how VTO can enhance their shopping experience and make brands more accessible and available to them. It was also found that most participants wanted to understand more and expand on their already existing knowledge surrounding these technological advancements. This presents excitement and the desire to see what happens next and how technological advancements further becomes integrated into the shopping experience.

This theme also portrayed some respondents' concerns regarding the recreation of the physical experience, realism, accuracy, and fit of the garment. A small minority of participants also mentioned privacy issues being an area of concern. This section suggests that VTO is perceived positively.

Still, the feature's functionality and utility should be perfected so that Gen Z consumers feel that it can be a more reliable tool. Regarding privacy, laws or discussions should support the consumers' best interest through transparency in what data is collected and how it is being used so that consumers feel more comfortable using it.

The research studied how Gen Z consumers perceive and engage with emerging technology in their post-pandemic fashion experience. This final chapter intends to answer the proposed research question by reflecting on both the literature and the interview results.

This section will begin by highlighting the key findings, outlining how the study was conducted, and bringing attention to the limitations of the primary research. It will propose areas of improvement and implications for future research in response to the proposed research question.

5. Conclusion

To conclude, this study aimed to investigate how Gen Z consumers perceive and engage with VTOs in their post-pandemic fashion practices.

The findings revealed five themes on how consumers perceive VTOs, namely (1) VTO as enhancing the shopping experience, (2) VTO and sustainability, (3) VTO as unreliable, (4) VTO as inaccessible and lastly, (5) VTO unsafe to use.

Notably, the research findings highlighted that Gen Z UAE residents use technology more frequently for fashion related activities post-pandemic in comparison to pre-pandemic. Furthermore, the participants were found to have a positive perception of technological advancements therefore, it is understandable why they are inclined to embrace the transformative potential of technology and VTO. Gen Z UAE residents have been identified to appreciate innovation and out-of-the-box ideas. The majority of the respondents were presented to have some basic knowledge surrounding the development. However, a significant portion had never engaged with VTOs before this research. For VTOs to be used in the intended manner as an assisting tool made to inform the purchasing of a physical end product, developers and brands need to consider addressing the identified limitations. This is to increase the positive perceptions and the engagement levels with the VTO technologies bridging the gap between the physical and digital worlds.

To answer the research question, findings reveal that overall, digital fashion is perceived by consumers as a tool that can enhance their consumer experience, as they deem it valuable in assessing the stylistic choices, design, colour, and overall aesthetics of fashion products. The TAM has helped identify how users perceive technology based on "usefulness" and "ease of use" (Davis, 1985, p.24). Eleven participants unanimously communicated that VTO is a straightforward feature that is simple and easy to use, given this advancement allows consumers to try on a variety of branded items by utilizing an application and pointing a camera at themselves (Liu et al., 2020, p.2; Nobile & Cantoni, 2022, p.667). However, the 'ease of use' and 'usefulness' of the tool has been interpreted to be negatively influenced by the current state of VTOs, this is due to privacy concerns and hesitation found among several respondents. Findings revealed that VTOs are also perceived as a tool that lack realism and described as a gimmick, by a minority of participants. Furthermore, the accuracy of how the clothing fits, in terms of size, the inability to feel the material and texture are aspects

identified to be of concern. It is worth noting that the accuracy of clothing size and fit was a frequent concern consumers had when discussing the implementation of tech within the fashion space more generally for example in relation to purchasing a garment from an e-commerce website. Thus the (negative) reference made to (in)accuracy of fit and sizing is possibly not a direct criticism of the VTO feature or digital fashion, but rather a question of how technology can become more reliable and accurate in order to ensure consumers feel comfortable with the integration of it across the fashion domain. This could explain why previous research has focused on more commercially and widely accepted areas of VTO that are non-garment focused and therefore, sizing does not become integral to areas e.g., sunglasses and accessories such as earrings (Youn et al., 2023, p.2).

While Gen Z consumers generally hold a favourable view of technology, the data reveals a contradiction. It shows that an individual's positive attitude towards a product or service does not necessarily guarantee the individual will use said product or service, which challenges the underlying assumptions of the TAM. The model communicates that 'ease of use' and 'usefulness' would result in a more positive attitude towards the technology, thereby also increasing the likelihood of its adoption (Davis, 1985, p.2). It is crucial to address the areas of concern to ensure that individuals' attitudes towards technology in the fashion domain are aligned with their actual use in order to understand and predict consumer behaviour (Davis, 1985, p.2). Participants claim VTO can be more valuable, and individuals could be more inclined to use it when looking for a particular product rather than for the purpose of browsing. This the case even if the tool is deemed easy and helpful, this suggests that behavioural intention can influence and inform the actual use of the technology more than anticipated.

While some consumers enjoy the social aspect and the ability to browse by physically shopping, this was not favoured by all; many respondents believed that when three primary areas of concern have been addressed: (1) the accuracy of the measurements is improved within the technology, (2) that the visual garment looks realistic and (3) existing privacy concerns are tackled participants would be willing to shift into using VTO as a tool that does indeed assist their decision-making surrounding fashion products. Although, it has been found that the implementation of VTO remains limited within the fashion landscape. Gen Z participants suggested brands should implement VTO to assist in differentiating brands in a

competitive market to make them unique and different as if this was more readily available, they would be willing to use it (Verhoef et al., 2009, p.32).

Gen Z UAE consumers have expressed curiosity about VTO, highlighting their appreciation for such a development. This is because, beyond the practical benefits that VTO provides, it can be time efficient, reducing the frequency of commuting to a physical store and the need to stand in queues to try on garments. VTO was also perceived as a potential solution to tackling more severe challenges surrounding sustainability. This is an incredibly relevant finding as it provides the consumers perspectives on sustainability choices in fashion consumption especially given that the fashion industry is one of the most destructive industries in the world (Liu, 2022, para.7-8). VTO's holds the potential to move the fashion sphere towards a more sustainable path, because they offer consumers the ability to more consciously assess garments and thus reduce the rate of returns. Ultimately the tool enables brands to allocate resources more efficiently towards causes and narratives that consumers are most concerned with such as better pay for labour workers and safe working environments and reduced waste.

Moreover, the findings reveal participants to be concerned with sustainability and ethical issues of the fashion industry, particularly waste reduction, safe working environments and better pay for fashion labour workers. Further, they showcased that participant view of VTO as a tool that brands can utilize to solve these issues to some extent.

In summary, findings disclose the implementation of VTO should be approached thoughtfully, balancing the benefits of digital innovation with the values of traditional shopping experiences that the consumers perceive. This approach can offer consumers a seamless experience between the physical and digital worlds and allow fashion brands to leverage these digital innovations both from a sustainability and profit standpoint. Importantly, participants have expressed openness and a strong willingness to invest time in learning how to navigate the features of VTO's. This optimistic response presents the potential for VTO to significantly enhance the consumer experience and move towards the direction the industry is exploring with the intentions of being efficient, effective, and sustainable.

5.1 Research Implications

Previous research has presented an interest in digital solutions being integrated within the fashion industry; however, there has yet to be much research surrounding the acceptance of technology using TAM in the fashion landscape (Chan et al., 2023, p.31). Therefore, this research has used the TAM framework to inform the researchers' understanding of consumers' perception of VTO as an emerging tool that could benefit consumers within the fashion industry. It has accounted for ease of use and usefulness. In turn, this has informed the researchers' understanding of how this influences consumer attitude towards using VTO, their behavioural intention, and their actual use of this tool.

Additionally, there is a lack in past research on the role of culture when examining sustainability (Malin and Ryder, 2018, as cited in Casciani et al.,2022, p.774). This was deemed a crucial factor that requires attention since fashion is a culturally informed industry (Bertola et al., 2016; Martin and Vacca, 2018, as cited in Casciani et al.,2022, p.774). Furthermore, some research has been made evident surrounding fashion and technology within the Middle East region; however, it was suggested that more research is required to examine pro-environmental choices within the fashion sphere in relation to UAE residents. This research has started addressing the gap and incorporating culture as a crucial factor in examining fashion-related aspects. It was found that UAE residents are aware and are informed to some extent on sustainability. UAE residents stated that they want to become more sustainable in their habits and have the intent of acting on this through using VTO features to inform their decision making when it comes to stylistic choices.

This research into VTO can benefit developers, as they can use the key benefits and insights surrounding how consumers respond and accept technological advancements and integrate the improvements necessary to ensure the technology appeals to consumers. Utilizing the findings can motivate developers to improve the virtual sizing to reduce the overall discrepancy between VTO and how the existing product fits the consumer in real life, encouraging more individuals to use this feature. To further expand, it helps them to understand more about what aspects consumers enjoy in the digital space and what aspects they prefer in the physical shopping landscape and inform the future decisions made when it comes to technology implementation and merge both landscapes to develop and create a

consumer experience that aligns with what consumers are looking for, in turn helping increase the engagement with the online shopping landscape, and enhance the consumers willing to participate and use VTO.

The research focuses on Gen Z, although many participants were familiar with or used the term VTO in the past, some had never used VTO features pre-interview.

This helps with proposing an implication for the education system. Gen Z is found to be the most tech-savvy generation; therefore, schools and universities could use this data to offer courses and enhance students' understanding of how VR and AR systems can be used to benefit Gen Z individuals further to ensure they are more familiar with the upcoming and already existing technological developments maintaining their position and reputation as 'digital natives' (Susanto et al, 2023, p.188).

5.2 Positionality

My positionality as a researcher could have influenced the outcome of this study as Gen Z UAE residents are examined. The researcher being an Egyptian-American woman who grew up in the UAE her entire life and is a Gen Z herself, is likely to impact her perception and interpretation of shopping habits, technology acceptance, and views on VTO in that landscape in comparison to how a researcher who is either entirely Middle Eastern or entirely Western would interpret the results due to various critical factors that could shape the overall outlook on the topic. Therefore, it is important to acknowledge that this positionality could introduce some degree of subjectivity in the study (Tracy, 2010, p.842).

5.3 Research limitations

Throughout this research, some limitations were identified. Firstly, the findings were informed by a small sample of eleven participants. While this was beneficial in obtaining in-depth insights, it resulted in a narrow scope of perspectives being presented which do not reflect the diversity of perspectives that would be evident across a more extensive sample of participants.

Therefore, to overcome this limitation, future research should have a more extensive sample of participants and conduct a cross-comparison study between Western and Middle Eastern nations to gain a comprehensive understanding of the differences in consumers' technology acceptance, behaviours, and perceptions (Plotkina & Saurel, 2019, p.34). By doing so, researchers can gain valuable information that could help brands and contribute to developing more nuanced findings. This comparative analysis would involve a diverse sample, allowing for the generalization of results to a certain extent across nations. Due to the interconnected and globalized world we currently exist within; such research holds significant importance in understanding the dynamics of consumer behaviour and technology acceptance on a broader scale.

A limitation found is that the sample comprised female and male Gen Zs. They were purposefully selected to be computer-literate individuals who were tech-savvy and comfortable with new and experimental technologies for the most part. This means that the insights found may only apply to more technologically driven groups overlooking the obstacles that might be experienced by those who are not as familiar and fluent in the digital space. This limits the applicability of the findings to a broader range of consumers.

Therefore, to increase the generalizability of the findings, it could be beneficial for a cross-comparison study of consumer experiences between various age groups to see the variation in responses and how technological literacy influences consumers acceptance of technology (Merle et al., 2012, p.56-57).

Another limitation identified from the research is that some of the participants who took part were found to have a background in Media and Fashion design. Therefore, these participants are more likely to have more knowledge and insight surrounding the industries and more awareness of critical terms such as 'digital fashion,' 'AR,' 'VR,' and 'VTO' than

individuals in less creative fields. However, as the sample of participants had diverse educational backgrounds, this is not entirely a negative aspect; it is just one that should be considered and accounted for when interpreting the data.

Due to the nature of the topic, many concepts and topics have been explored: digital fashion, consumer decision-making, sustainability, consumer experience, and customization. In order to grasp an even deeper and focused understanding of consumer responses to VTO and their perception of technologies integration, it is suggested that future research should carry out an in-depth study that aims to understand whether consumers perceive VTO to be a practical tool for trying on products, or simply as a fun and experimental game as explained earlier by (Hirschman & Holbrook, 1982, as cited in Childers et al., 2001, p.513). By gaining insights into these perspectives, researchers can assist brands in better understanding the consensus surrounding the development of VTO, its implementation, and how VTO can be implemented to serve consumers best and align simultaneously with the brand's goals.

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Appendix

Appendix A: Sample Overview

Interviewee	Age	Time in UAE	Field of study	Date	Duration
Interviewee 1	21	Lived there for one year, post covid.	Didn't specify	10/04/2024	54 minutes
Interviewee 2	22	Lived in the UAE for 20 years.	Media and Culture	10/04/2024	40 minutes
Interviewee 3	21	Lived in UAE 7 years. Pre and post Covid.	Feminism	11/04/2024	46 minutes
Interviewee 4	22	Lived in the UAE 22 years. Pre, during and post Covid.	Journalism	11/04/2024	48 minutes
Interviewee 5	25	Lived in the UAE for 12 years. Pre, during and post Covid.	Fashion design	17/04/2024	70 minutes
Interviewee 6	21	Lived in the UAE for 21 years, pre-during and post Covid.	English	17/04/2024	38 minutes
Interviewee 7	23	Lived in the UAE for 15-16 years, pre-during and post Covid.	Engineering	17/04/2024	58 minutes
Interviewee 8	23	Lived in the UAE for 23 years, pre-during and post Covid.	Design and technology	18/04/2024	59 minutes

Interviewee 9	21	Lived in the UAE for 17 years.	Economics	18/04/2024	49 minutes
Interviewee 10	22	Lived in the UAE for majority of life	Economics and finance	19/04/2024	50 minutes
Interviewee 11	22	Only time away from UAE was for university, lived there pre-during and post Covid	paediatric nursing	22/04/2024	55 minutes

Appendix B: Interview Guide

Dear...

Introduction (5 minutes)

Thank you for participating in this research.

My name is Chantalle El Sharkawy, and I am a MA Media and Business student at Erasmus University Rotterdam. This study is for my thesis, and it aims to investigate how Gen Z consumers perceive and engage with emerging technologies in their post-pandemic consumer experience with the fashion industry.

It is also important to mention that this research primarily focuses on UAE residents during the COVID-19 pandemic; therefore, you have been purposefully selected or recommended by others to part take in this research, your answers and feedback will therefore be precious to this study.

I would like to mention that there are no identified risks associated with participating in the research. Interviewees' names will remain anonymous when reporting data in order to protect confidentiality.

During the interview, I will make some notes; the interview will also be recorded and transcribed for analysis purposes. Information gathered from the interviews will exclusively be used for academic purposes and shared with Erasmus University.

In terms of time, the interview will take around one hour to complete. Questions will revolve around consumer experience, technology acceptance, sustainability, customization, digital fashion, and Virtual Try-on platforms. The aim is to encapsulate your personal experience within these areas; therefore, there are no correct or incorrect answers.

If you have any questions, please feel free to ask, and I will happily answer and clarify either at the start or throughout the process of the interview.

List of topics:

1. General Questions
2. Shopping habits
 - Fashion and technology
 - Digital fashion and VTO
3. Consumer experience
 - Considerations related to VTO

4. Customization

Interview:

1. General Questions

- Could you give us a background about yourself?
- How old are you?
- Where are you from?
- How many years have you lived in the UAE for?
- Have you lived in the UAE pre, during and or post covid?

(Icebreaker)

- Do you enjoy fashion shopping and why?
- If you think about yourself as a fashion shopper, would you describe yourself to be a maniac shopper, casual shopper, or a shop when you must?

2. Shopping habits

- How frequently would you say you purchase fashion pieces?
- If you think about how, you usually shop for fashion items, would you describe yourself to be an individual that makes spontaneous impulsive purchases e.g., purchasing items you see and like or do you prefer to plan in advance e.g., purchase when there is a particular occasion? and why do you believe you take either or both of these approaches?
- When you think about how you shop for fashion items now and pre-pandemic. Do you see any differences in how you do this?
- When selecting stores to buy clothing, can you share insights into the types of stores you typically prefer shopping from for example, smaller or bigger name brands and why?

- (This will be interesting to see if sustainability is referred to indirectly e.g., by mentioning vintage, thrift stores, kilo stores or if instead individuals mention department stores and fast fashion shops which would indicate, sustainability is necessarily not top of mind).
- Do you prefer shopping for fashion pieces in physical stores or online and why?
- Think about the last time you bought a fashion garment in a physical store; can you talk me through your shopping experience from the moment you entered the store.
- When you are shopping in a physical store for clothing or other fashion items, how do you typically assess if the colour, fit, and size are right for you?
- Think about the last time you purchased a fashion item online; can you talk me through your shopping experience from the moment you opened the website or the app?
- When you are shopping online for clothing or other fashion items, how do you typically assess if the colour, fit, and size are right for you?
- What factors influence you during the decision-making process prior to making a purchase?
- Could explain any additional considerations or steps you take into account before finalizing your decision to purchase a fashion item, beyond those already discussed?

Fashion and technologies

- How often do you use these when shopping (1) Mobile or tablet, (2) Laptop, (3) AR?
- Can you provide examples of when you have intentionally used technology in your day-to-day life for fashion related activities?
- In the context of fashion, how would you describe your level of dependence on technological advancements?

Digital fashion and VTO

(All participants will be asked to download the Farfetch application prior to the interview and play around with it to report back on their experiences)

- How do you understand the concept of digital fashion?
- Did you have any experiences with digital fashion? If so, can you tell me about them?
- Have you ever heard about virtual try on platforms?
- Did you manage to use the VTO features recommended prior to this interview? If so, can you describe your experience using the virtual try on platform?
(If they did not manage to use it, this will be experimented with during the interview)
- Describe your experience with using the VTO platform on the Farfetch app.
- If you think about your experience with the Farfetch app's VTO features, was this easy or difficult to use? And why?
- Explain if you found VTO features being embedded in the fashion application useful or not and you're reasoning for this.
- Is there anything you identified that you think needs changing in VTO based on your experience?
- Would you have any concerns about using technology for fashion related assistance? And VTO's in specific?
- Please explain your perspective and reasoning behind if you would invest time into trying digital fashion pieces as an assisting tactic to further inform your purchase of a physical

garment?

3. Consumer experience:

- Describe how you believe your shopping experience as a consumer would look like if a VTO features were made broadly accessible to you when browsing for clothing online?
- Do you think this would affect your current shopping habits?
- How does the uniqueness of a fashion product influence your purchase intention to buying it?
- If your favourite brand was to begin using VTO in their online store- what would be your opinion about it? Would you advise them to go for it or not? Why?
- If you think about the occasions when VTOs might be most useful for you- what would these occasions be?
- What other features would you consider useful during the use of a VTO app?

Considerations related to VTO:

- How do you perceive VTOs as a tool for supporting fashion purchases, in general?
- Imagine you are now a brand, explain from your perspective your reasons of why you would or would not adopt VTO.
- Now imagine, from the fashion industry's perspective, more broadly speaking, what are pros and cons you can think of that come with using VTO features?

4. Customization:

- When you shop online for clothes, do you like it when you can customize items to your own liking, or do you prefer when the options are more standard? Why?
- How has personalization impacted your decision surrounding purchasing a fashion item in the past, can you provide an example?

Wrap up (5 minutes)

This was the last section and final question we have today. Do you have any final remarks or comments that could contribute further or help encapsulate your experience beyond what has already been discussed?

If yes (let the interviewee share...)

If not, if you have any feedback that you would like to share with me, this is the time to do so.

Thank you again, for participating in this interview.

If you have any questions, do not feel hesitant to contact me by email or phone.

If, for any reason, you would like to withdraw from this research, please let me know within the duration of one-week post-interview, as after that, the interview will be transcribed and featured within the thesis. As a reminder, the data provided will all remain anonymous, and your information will remain confidential throughout the entirety of this process.

Appendix C: Code tree

selective	axial	Examples of open codes
VTO as enhancing shopping experience	Brands become more accessible	enhancing level of connivence
	helps assess style	Improving stylistic visualisation
	merging of both worlds	providing seamless online-offline experience
	support decision-making	Offering guidance
	time-efficient	
VTO as sustainable	more conscious assessment of garments	
	could led to less frequent returns	
	brands can reallocate resources	Restructuring the priorities
VTO as unreliable	not useful in recreating the physical experience	
	fit trust	
	worries surrounding realism	
VTO as inaccessible	not commonly implemented by existing brands	niche development
VTO as not safe to use	privacy issues	data collection and human rights

Appendix D: Informed Consent

CONSENT REQUEST FOR PARTICIPATING IN RESEARCH

FOR QUESTIONS ABOUT THE STUDY, CONTACT:

Chantalle El Sharkawy, 631657ce@eur.nl

DESCRIPTION

You are invited to participate in research about Digital fashion. The purpose of the study is to understand how Gen Z consumers perceive and engage with emerging technologies in their post-pandemic consumer experience with the fashion industry.

Your acceptance to participate in this study means that you accept to be interviewed. In general terms.

in the case of interview my questions will be related to shopping habits, consumer experience and customization.

Unless you prefer that no recordings are made, I will make an audio recording of the interview.

I will use the material from the interviews and my observation exclusively for academic work, such as further research, academic meetings, and publications.

RISKS AND BENEFITS

As far as I can tell, there are no risks associated with participating in this research. I will not use your name or other identifying information in the study. To participants in the study will only be referred to with pseudonyms, and in terms of general characteristics such as age and gender.

You are always free not to answer any particular question, and/or stop participating at any point.

TIME INVOLVEMENT

Your participation in this study will take 45 to 60 minutes. You may interrupt your participation at any time.

PAYMENTS

There will be no monetary compensation for your participation.

PARTICIPANTS' RIGHTS

If you have decided to accept to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. If you prefer, your identity will be made known in all written data resulting from the study. Otherwise, your individual privacy will be maintained in all published and written data resulting from the study.

CONTACTS AND QUESTIONS

If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact –anonymously, if you wish— Izabela Derda [Izabela.derda@eshcc.eur.nl]

SIGNING THE CONSENT FORM

If you sign this consent form, your signature will be the only documentation of your identity. Thus, you DO NOT NEED to sign this form. In order to minimize risks and protect your identity, you may prefer to consent orally. Your oral consent is sufficient.

I give consent to be recorded during this study:

I give consent to be audiotaped during this study:

Name

Signature

Date

I prefer my identity to be revealed in all written data resulting from this study

Name

Signature

Date

This copy of the consent form is for you to keep.

Appendix E: Operationalization table

(Please check next page)

Authors:	Concept:	Example Questions:	Dimension of concepts
<p>(Lemon & Verhoef, 2016, p.69-89) (Verhoef et al., 2009, p.32-34). (Alexander & Alvarado, 2014, p.32) (Voramontri & Klieb, 2019, p.214). (Guide theme is shopping habits)</p>	<p>Consumer decision making. This term encapsulates an individual's shopping habits and the thoughts and actions that inform a purchase.</p>	<ul style="list-style-type: none"> ▪ When selecting stores to buy clothing, can you share insights into the types of stores you typically prefer shopping from for example, smaller or bigger name brands and why? ▪ What factors influence you during the decision-making process prior to making a purchase? 	<ul style="list-style-type: none"> ▪ Three stages are identified in consumer decision making: <ol style="list-style-type: none"> 1. Need for recognition 2. Information search 3. Evaluation of alternatives.
<p>(Davis, 1985, P.2-55) (Särmäkari, 2021, p.86-114) (Ginsburg, 2022, p.1) (Guide sub-theme is Fashion and Technology)</p>	<p>TAM helps capture individuals' acceptance of technology and their willingness to utilize technology within a particular domain.</p>	<ul style="list-style-type: none"> ▪ If you think about your experience with the Farfetch app's VTO features, was this easy or difficult to use? And why? ▪ Explain if you found VTO features being embedded in the fashion application [Farfetch] useful or not and you're reasoning for this. 	<p>Two crucial factors are identified that inform acceptance of technology these are: The perceived ease and the perceived usefulness.</p> <p>This informs three different levels: <ol style="list-style-type: none"> 1. Attitude towards use of the technology. 2. Behavioural intention to using the technology. 3. Actual use of the technology. </p>

<p>(Särmäkari, 2021, p.93). (Casciani et al., 2022, p.778). (Chan et al., 2023, p.19) (Guide sub-theme is digital fashion and VTO)</p>	<p>Digital fashion is the integration of technology within the fashion industry.</p> <p>Digital fashion - is presented as tool [VTO] that assists in the consumer decision making process, with the end goal of obtaining a physical end-product.</p>	<ul style="list-style-type: none"> ▪ How do you perceive VTOs as a tool for supporting fashion purchases, in general? ▪ Can you describe your experience using the virtual try on platform? ▪ Is there anything you identified that you think needs changing in VTO based on your experience? 	<p>Digital fashion is the tool that focuses on the dimension of ‘Communication and marketing’ and more closely within that is ‘VTO’.</p>
<p>(Alexander & Alvarado, 2014, p.35). (Verhoef et al., 2009, p.32) (Lemon & Verhoef, 2016, p.69-70).</p>	<p>Consumer experience is a multi-dimensional term that captures how an individual thinks, feels,</p>	<ul style="list-style-type: none"> ▪ If you think about the occasions when VTOs might be most useful for you- what would these occasions be? 	<p>Dimensions within retailers’ control: (Aesthetics, assortment, and pricing) Dimensions beyond retailers’ control:</p>

<p>(Verhoef et al., 2018, p.70).</p> <p>(Guide theme is consumer experience)</p>	<p>acts, and relates to a brand, this can be influenced by both factors that the retailer can but also cannot control.</p>	<ul style="list-style-type: none"> ▪ If your favourite brand was to begin using VTO in their online store- what would be your opinion about it? Would you advise them to go for it or not? Why? 	<p>(Social influence, occasion, location, personality and background)</p>
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Appendix F: AI usage

1. Can you identify any areas that would make this piece of text smoother?
2. Can you identify any spelling mistakes in the text?
3. Can you identify any Grammar issues?