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# Metaverse retailing and the customer experience journey: a case study approach

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Metaverse retailing and the customer experience journey: a case study approach

## Abstract

**Purpose:** This study adopts the customer journey framework to investigate the role of the metaverse in the customer purchase experience. It establishes the effect of the metaverse on the three stages of the customer purchase journey, namely pre-purchase, purchase and postpurchase, in the context of the fashion industry, an early adopter of the metaverse.

**Design:** The research is a qualitative case study explored through consumer diaries and focus groups. The resultant data are analysed thematically.

Findings: Metaverse usage is the most significant at the pre-purchase stage. However, technical problems and other sources of friction negatively impact the customer experience journey, providing insight into the reasons underlying the recent decline of metaverse marketplaces.

**Originality:** This study's empirical findings have theoretical and practical implications related to metaverse retailing and the customer experience journey. The study benefits metaverse designers and customers and will influence retail strategy choice. Additionally, it contributes two conceptual frameworks to the underdeveloped metaverse retailing field and extends the customer experience journey framework to the metaverse context, thus contributing to the body of knowledge on omnichannel retailing.

Aeta. Keywords: Metaverse, Customer experience journey, Omnichannel, Retailing, Metaverse Fashion Week

Paper type: Research paper

## Introduction

Scholars concur that the metaverse is defined by several attributes: the persistence of a shared environment, the use of avatars (embodied selves), interoperability, and an interactive customer experience (CX; Kim, 2021). This study adopts Hadi *et al.*'s (2024, p. 2) definition of the metaverse as 'a network of digitally mediated spaces that immerse users in shared, real-time experiences'. The relationship between interactivity and immersion has been demonstrated in virtual retail contexts (ben Saad and Choura, 2024). Interactive features are efficient tools to enhance user immersion, which leads to strong connections between consumers and brand communities (Ibid). Over 80% of commerce could be affected by consumer activities in the metaverse, from retailer discovery to virtual store purchasing (Elmasry *et al.*, 2022). The possibilities derived from metaverse retailing (MVR) in terms of socializing and selling have never been greater (Hadi *et al.*, 2024; Silva *et al.*, 2024; Wang *et al.*, 2024).

Despite growing attention to the metaverse, related research is scarce and largely limited to conceptual papers (e.g. Barrera and Shah, 2023; Dwivedi *et al.*, 2023; Hadi *et al.*, 2024; Hollensen *et al.*, 2023; Kumar *et al.*, 2024). Many posit that the metaverse is the ultimate merger between the physical and digital to realize *phygital* retailing (Park and Lim, 2023) and provide value on the customer journey (CJ; Batat, 2024). However, scholars fail to acknowledge the metaverse as a novel retail channel within omni-evolution (Sharma and Dutta, 2023). As the boundaries between physical and online retailing environments continue to coalesce, academics must provide new conceptualizations of omniverse experiences to offer insights concerning the evolving interplay of retail channels and touchpoints (Dwivedi *et al.*, 2023) as well as across different sectors to improve the overall CX (Towers and Towers, 2022).

Scholars suggest that the metaverse offers significant opportunities to enhance the CX (Alexander *et al.*, 2024; Hadi *et al.*, 2024; Kaur *et al.*, 2024; Park and Lim, 2023) and thus advocate applying the CJ framework (Lemon and Verhoef, 2016; Towers and Towers, 2022) to harness its potential and enrich customer touchpoints at the pre-purchase, purchase and post-purchase stages (Dwivedi *et al.*, 2023; Yoo *et al.*, 2023). Despite the development of metaverse commerce (Payal *et al.*, 2024), an empirical understanding of the role of the metaverse in the CJ and the impact of MVR on the overall purchase experience is lacking, necessitating further research in this area (e.g. Dwivedi *et al.*, 2023; Gao *et al.*, 2023; Silva *et al.*, 2024). This study aims to fill the gap by answering the following research questions:

RQ1: What is the role of the metaverse at each stage of the customer purchase journey (pre-purchase, purchase and post-purchase)?

RQ2: How does metaverse retailing impact the customer purchase experience journey?

We address these questions using a qualitative research design to capture the lived experiences of participants who have engaged with metaverse marketplaces (e.g. Metaverse Fashion Week [MVFW]; Kaur *et al.*, 2024). The fashion industry provides the research setting because it is an early adopter of the metaverse and has multiple use cases of virtual experiences (Dwivedi *et al.*, 2023; Elmasry *et al.*, 2022; Joy *et al.*, 2022; Kaur *et al.*, 2024; Park and Lim, 2023; Pillai *et al.*, 2024; Yoo *et al.*, 2023). This research contributes to a nascent scholarly field in various ways. First, we extend the CJ framework and provide novel insights into the role and relative importance of the metaverse at each stage of the CJ, thus highlighting its potential to optimize the retail CX. Second, unlike conceptual papers on the metaverse, this paper

situates it within omnichannel retailing (OCR) as an immersive online channel (the omniverse), thereby extending the body of knowledge on OCR.

#### Theory development

#### Customer experience

CX is a multidimensional concept encompassing cognitive, affective, behavioural and societal interactions (Lemon and Verhoef, 2016; Zhang *et al.*, 2024). Its multifaceted nature shapes customers' direct and indirect interactions with retailers (Verhoef *et al.*, 2009); it has thus become a pivotal focus among omnichannel retailers and scholars. CX is influenced by controllable factors (i.e. retail mix and store atmospherics; Grewal and Roggeveen, 2020) and uncontrollable external factors (Verhoef *et al.*, 2009). Holbrook and Hirschman (1982) theorize that consumption has experiential aspects, resulting in the introduction of the experience economy. Scholars argue that the CX is vital for shaping a company's competitive advantage (e.g. Sharma and Dutta, 2023).

Verhoef *et al.*'s (2009) original CX model identifies the retail atmosphere, retail mix elements, socialness (user-to-user interactivity) and the service interface (user-to-system interactivity) as primary stimuli affecting CX. Building on this, Dwivedi *et al.* (2022) theorize that technology, socialization and atmosphere are key stimuli that could influence the metaverse CX at different levels, with their impact moderated by customer and environmental factors. However, the extant CX research presents fragmented findings and has theoretical ambiguities (Becker and Jaakkola, 2020), highlighting the need for further investigation. To examine the role of the metaverse in the customer purchasing journey, this study adopts a holistic CX perspective.

As previously stated, interactivity is a foundational attribute of the metaverse (Kim, 2021). Broadly defined, it involves technologically-mediated person-to-person and person-tomachine exchanges that simulate interpersonal communication in digital contexts (Park and Yoo, 2020). McMillan and Hwang (2002) categorize interactivity into three types: user-to-user, user-to-content, and user-to-system; each plays a distinct role in shaping the CX in digital environments. In the MVR context, our study focuses on two types: user-to-user(i.e. socialness and connectedness to others) and user-to-system (i.e. technical features that impact user interaction). User-to-user interactivity emphasizes interpersonal communication and social engagement. In MVR, such interaction takes on new dimensions through avatar-based exchanges, where sociability between avatars can closely mimic in-person shopping experiences (Kim *et al.*, 2023). With user-to-system interactivity, a consumer interacts directly with technological features and service interfaces in virtual spaces. In MVR, this interactivity allows consumers to explore products dynamically by, for example, viewing three-dimensional (3D) digital assets and engaging with products through virtual reality (VR) headsets. This interactivity mode not only enhances the informational richness available to consumers but also deepens immersion, enhancing the overall CX (Pantano and Servidio, 2012). In the MVR environment, interactive elements such as user co-creation, virtual try-on, social interaction, and gamified experiences (Anderson and Laverie, 2022) are anticipated to significantly elevate .he C the CX. Thus, our research explores how these types of interactivities jointly shape the CX in metaverse retail spaces.

Omniverse customer journey

The omnichannel concept reflects the evolution of retailers' strategies, which have transitioned from a single-channel (i.e. online, mobile, in-store and social) to incorporating various channels and touchpoints (Sharma and Dutta, 2023). Successful implementation of OCR hinges on the integration of retail channels and touchpoints. With the metaverse becoming a new digital retail space, scholars must comprehend its role in OCR (Hadi *et al.*, 2024); however, the existing omnichannel literature neglects this aspect (Gao *et al.*, 2023; Sharma and Dutta, 2023). Misra *et al.* (2023) suggest that the metaverse may address the limitations of OCR, such as fragmented customer data and the insufficient integration of physical and digital experiences.

Concerning the integration of digital and physical channels, the metaverse presents a solution by seamlessly merging physical and digital environments through immersive technology (Alexander *et al.*, 2024). Consequently, the term 'omniverse' appears in retailing literature, operationalizing the future scenario of seamlessly integrating virtual, digital and physical channels (Ramadan, 2023).

The CJ involves three key stages (pre-purchase, purchase and post-purchase), and every retail touchpoint contributes to the CX (Grewal and Roggeveen, 2020; Towers and Towers, 2022). Lemon and Verhoef's (2016) CJ and CX model assumes that consumers seek easy, convenient and predictable shopping journeys (Siebert *et al.*, 2020). Yoo *et al.* (2023) suggest that the CJ framework can be applied to MVR with a focus on 'amplified' consumer touchpoints at the three stages of the journey. However, further research is needed to empirically validate this framework. Consumer interactions with a retailer and its environment prior to a purchase are defined as the *pre-purchase stage*, including consumer need recognition, information searching, and the evaluation of alternatives (Kaur *et al.*, 2024; Lemon and Verhoef, 2016; Towers and Towers, 2022). In the metaverse, Yoo *et al.* (2023) relate this stage

to value exploration and relationship development. Consumer interactions with a retailer and its environment at the point of decision and purchase comprise the *purchase stage* (Koronaki *et al.*, 2023; Towers and Towers, 2022). This stage entails a value exchange involving cryptocurrencies, which are highly volatile and thus create uncertainty. It also concerns relationship validation in terms of promoting social shopping and interactions among customers, which is unique in the metaverse as opposed to other digital channels. Consequently, the purchase process is co-experienced (Yoo *et al.*, 2023). The interactions that comprise usage, consumption, recommendations, advocacy and customer service following a purchase comprise the *post-purchase stage* (Koronaki *et al.*, 2023; Towers and Towers, 2022). In the metaverse, this stage relates to value evaluation and relationship maintenance (Yoo *et al.*, 2023).

Management and understanding of the CX at each stage of the CJ are essential to retailers' success (Grewal and Roggeveen, 2020; Towers and Towers, 2022). However, research on the role of the metaverse in the CJ is lacking. Given that the metaverse facilitates the CJ in a virtual world, research should investigate if and how it changes the shopping process, consumer–retailer interactions and experiences at all stages (He and Zhang, 2023). To date, there is no research on the determinants of the metaverse that generate specific customer responses across the CJ or on which experiential dimensions are the most salient at each stage (Hadi *et al.*, 2024; Koronaki *et al.*, 2023).

Figure 1 depicts the *omniverse customer experience journey framework*, which draws upon the fields included in our literature review to situate the metaverse in OCR as a digital channel or touchpoint within the converging, non-linear CJ (centric circles). The framework recognizes the importance of the three stages of the CJ, impinged by the metaverse environment, moderators and CX outcomes (3-points; Dwivedi *et al.*, 2022; Kaur *et al.*, 2024; Verhoef *et al.*, 2009). This conceptual framework guides the research design as discussed in the following section.

[Insert Figure 1 about here]

## Methodology

#### Research design

In response to calls for metaverse case studies (Dwivedi *et al.*, 2023) in the fashion context (Park and Lim, 2023), this research adopts a single qualitative case study approach. Given the nascent state of empirical research on MVR (e.g. Chakraborty and Biswal, 2024; Kaur *et al.*, 2024; Kumar *et al.*, 2024), qualitative research offers valuable and valid insights for contexts with limited existing theory (Eisenhardt, 1989).

Our research focuses on *how MVR impacts the customer experience journey* (CXJ), which is typical of and suitable for qualitative case studies (Yin, 2009). The theoretical framework indicates the themes and gaps in the MVR and CXJ literature; case study research enables greater understanding through a rich data generation process (Eisenhardt, 1989). This approach is comparable to other exploratory studies (e.g. Hollensen *et al.*, 2023) and is frequently used by *IJRDM* authors researching similar topics.

Despite high consumer awareness of MVR (bolstered by major brands like Louis Vuitton, Balenciaga and Nike creating metaverses; Chakraborty and Biswal, 2024; Payal *et al.*, 2024), consumer adoption remains low due to its recency and niche status (Kaufmann and Tzanetakis, 2020). We employ a critical case sampling strategy (Patton, 2002) that entails identifying an information-rich case with global reach. We use event-based time–space sampling (Becker, 2018) to select a multinational, multi-brand, multi-platform marketplace - MVFW (Hanson, 2023), hosted on Decentraland. We collect and triangulate user data on their MVR CXJ through diaries and focus groups and derive interpretive meanings that strengthen the validity of the research (Crick, 2021). Our systematic research process comprises three key steps: sample selection, data collection and analysis.

## Case study and consumer sample selection

MVFW launched in March 2022 to globally showcase digital fashion to people denied access to the closed fashion ecosystem. While public entry to MVFW is free, brands and exhibitors purchase virtual space at over \$5000 apiece. The 2022 event attracted over 100,000 attendees, and more than 60 fashion brands had an official presence, including Adidas, Coach and Dolce & Gabbana (Hanson, 2023). MVFW was heralded as the first and largest cultural fashion-related moment in the metaverse (Wright, 2022), rendering it an appropriate choice for this study. We use MVFW 2023, which spanned 28–31 March, as our unit of assessment.

Participant recruitment is based on the following criteria: (1) engaged with a fashion metaverse in the past 12 months (not limited by gender or geography) and (2) born between 1981 and 2005 (millennial or Generation Z, who are digital natives and key metaverse users; Dwivedi *et al.*, 2023; Hall *et al.*, 2017; Pillai *et al.*, 2024; see Table 1). Recruitment via LinkedIn and professional networks yielded 20 participants from 500 invitations. In qualitative research, data adequacy supersedes sample quantity; scholars disagree on the sample size optimal for data saturation (Hennink and Kaiser, 2022). Our sample size is similar to the qualitative sample sizes of previous exploratory studies (e.g. Bonfanti *et al.*, 2023). Three to six focus groups are considered sufficient to extract prevalent themes, and groups comprising

four to eight participants are suitable for idea generation on novel topics (Guest et al., 2017). We record the emergence of most of the key themes after the fourth focus group and consider data saturation to have been reached upon the evidencing of content validity among 20 metaverse users in five focus groups (Guest et al., 2017).

In accordance with ethical practices, participants were anonymized (P1-P20) and informed consent was obtained. The data collection methods employed between 28 March and 10 April 2023 are as follows.

[Insert Table 1 about here]

## Diary-keeping

The diary method is adaptable and can capture real-time and context-specific insights. It represents lived experiences and can be combined with other methods (Becker, 2018) to enhance data validity (Bolger et al., 2003). We use an event-contingent protocol that requires participants to keep a self-report digital diary of their experiences during MVFW with a focus on interactions, interplay with other channels and the purchase experience journey. The diary protocol has three sections (Table 2): metaverse environment, MVFW impressions and purchase experience journey. The protocol design is informed by the theoretical framework. Out of 20 participants, eight completed full diaries, while the rest submitted partial entries. WL Methodological limitations of diary studies (Unterhitzenberger and Lawrence, 2022) were mitigated through follow-up probing during focus groups.

Focus groups

Focus groups, underutilized in CX and metaverse research (Becker, 2018; Gadalla *et al.*, 2013), offered rich insights into participants' attitudes and experiences (Threlfall, 1999). Conducting focus groups after diary-keeping allows us to clarify understanding and obtain rich descriptions of fashion metaverses in the CXJ, thereby enhancing the validity of the research (Silverman, 2014).

The theoretical framework informs the design of the focus group research protocol, which ensures data reliability (Becker, 2018). It addresses three themes: metaverse meaning and experience, metaverse environment perceptions, and impact of the metaverse on the purchase experience journey (Table 2). We hold five online focus groups, each comprising four informants, one week after MVFW, each lasting about two hours. Two researchers are present at each to integrate the diary entries and photos, resulting in deep insights and enhanced interresearcher reliability. The focus groups are recorded, and we produce verbatim transcripts.

[Insert Table 2 about here]

#### Data analysis

We employ thematic analysis in the analysis phase (Braun and Clarke, 2019). The process comprises data familiarization, initial code formation, theme searching and identification, review, and theme definition and naming. The data structure (Figure 2) illustrates progression from first order concepts to final themes (Gioia *et al.*, 2012). Performed iteratively, organizing themes across the data corpus exposes meaning patterns (Silverman, 2014), enhancing data accuracy in support of conceptual development and content validity (Crick, 2021). We add key quotes to exemplify themes and gain an interpretive understanding (Ibid). iona;

#### [Insert Figure 2 about here]

This study adhered to established criteria for qualitative rigour (Lincoln and Guba, 1985). Research protocols derived from the literature themes ensured consistency, while participant probing validated findings. We enhance inter-researcher reliability by involving multiple researchers in data collection and analysis to enhance the dependability and confirmability of the study (Olson *et al.*, 2016). We have ethical approval from the lead author's university and practice ethical procedures to ensure the study's credibility.

## Findings and Discussion

## The role of metaverses in the customer journey

The role of the metaverse is the most significant at the pre-purchase stage of the CJ, followed by the post-purchase stage, where it can generate engagement, a sense of community and intention to act. Contrastingly, the metaverse is the least important at the purchase stage.

In the pre-purchase stage, the metaverse can be used for research, to obtain product information and as a novel brand touchpoint. Some participants read about metaverses, develop a desire to experience them and are thus driven to seek branded metaverses. Alternatively, some discover new retail brands while exploring metaverses generally. Thus, brand preference influences some participants' desire to engage with metaverses, whereas brands resonate with others' lifestyle choices. For example, participants who do yoga enjoy Lululemon's meditation activities. Concerning user-to-system interactivity, the ability to virtually try digital garments, access digital twins and attend one-off events are the main reasons participants use the metaverse. The most popular among these is the ability to virtually try items. P13 states, 'I probably would have bought those jeans if I could, like, see if they virtually fit me'. Becoming part of the design process reflects consumers' desire for customization in the metaverse, which P19 describes as facilitating the 'testing of items and engaging' users'. This notion of metaverse co-creation is related to user-to-user interactivity, a retailer-induced factor that fosters collective user interaction (Barrera and Shah, 2023; Yoo *et al.*, 2023).

Only one participant reports making an impulse purchase during MVFW. P5 is a preexisting Auroboros fan who reports being motivated to buy a dress for their avatar. However, P5's payment is in MANA tokens, necessitating a cryptocurrency swap (MATIC for MANA), which adds a complex layer to the purchase journey. This finding aligns with Yoo *et al.*'s (2023) mention of cryptocurrency volatility as a factor that introduces uncertainty and complexity. A few participants report receiving free non-fungible tokens and feeling a greater sense of inclusion in the metaverse as a result.

P12 describes the ability to appraise a physical item via a digital twin 'as a helpful digital representation' prior to purchase. Participants indicate a desire for product information on digital assets but report that it is not always available. They expect digital assets to showcase novelty, such as 'items on fire or levitating' (P9). Participants also expect to see assets in 3D on digital twins.

Participants are willing to pay  $\pounds 10-30$  for a digital item they perceive as having utility value (e.g. access to a brand community and the ability to wear the item across platforms). P8 and P5 report the unavailability of price information and purchase links at Adidas and

Balenciaga, which curtail the progress of the CJ. Conversely, participants' reasons for not purchasing digital items are resistance to investing in products that lack utility, currency confusion, purchase complications (lack of seamlessness), trust and absence of a unique experience. P14 states: 'It's annoying when you have to authorize your wallet before seeing the price for items in Balenciaga's store'. Similarly, P20 comments: 'Payment was so confusing, I just gave up'.

Although participants' metaverse experiences do not typically result in purchases, some report being motivated to visit physical stores and websites, which demonstrates increased engagement with other channels and the potential of metaverse experiences to attract new audiences. Additionally, some participants report a willingness to make a future purchase owing to a desire to feel included in the metaverse; others who spend more time in fashion metaverses report feeling more engaged or, conversely, view it as a waste of time. Participant comments include: 'I honestly felt like I might have been wasting time standing around... [but] it was cool if it was just a game or place I could meet people at a specific time and experience brands together' (P6) and 'That was fun! It was different and interesting, and I'll remember it' (P13).

Participants view post-purchase utility as vital to increasing the value of an item and its wearable interoperability. The ability of the metaverse to offer community-building and facilitate brand connection and social validation (e.g. through consumers posting their digital selves on social media and being perceived as progressive, leading to feelings of pride and achievement) is also important, as evidenced by P16's statement that 'Not everyone in my peer group is even looking into the metaverse, and I feel like a sense of, wow, I'm moving forward.' This finding aligns with Oh *et al.*'s (2023) assertion that metaverses may enhance social selfefficacy and social approval.

#### The overall metaverse experience

Although the metaverse does not meet participants' overall expectations, they report shortlived excitement, with most acknowledging that MVR is in its infancy, as evidenced by P13's comment that 'It's missing something.' The majority say they will return to the metaverse and potentially make purchases, as evidenced by P7's comment that 'Nothing really kept me engaged; overall though, the metaverse is interesting and has future benefits'.

Regarding the CX, the metaverse's greatest potential lies in the spheres of user-to-user interactivity (i.e. sociability), utility value and the facilitation of retailer engagement. Regarding user-to-user interactivity, social presence and connectedness to others in the metaverse constitute an important antecedent of the CX, in line with extant studies (Barrera and Shah, 2023; Koronaki *et al.*, 2023; Oh *et al.*, 2023). However, these are lacking, as evidenced by P13's remark: 'I find Decentraland is a bit like exploring an event that has been abandoned because it would only seem to make sense if filled with people'. This sense of abandonment contrasts with the scholarly notion of the social benefits of the metaverse (Oh *et al.*, 2023). The absence of a social presence could result in avoidance and consumers 'not returning to the metaverse' (P15).

The utility value of a good or service determines its worth; in the context of the metaverse, its utility value is measured by total satisfaction or the benefits derived from the experience (Koronaki *et al.*, 2023). However, most participants perceive the metaverse experience as deficient and report expecting a digital item to 'do more than just be worn' (P4).

The interplay of the metaverse environment with the encounter and experience elicits mixed user emotions, ranging from excitement, fun, freedom and limitlessness to frustration, dullness, loneliness and boredom. Participants who use the metaverse to attend specific events rate it more highly than those who regularly use it as a channel or touchpoint during their fashion CJ. This finding, which P13 summarizes as 'I think it's a good environment to learn about brands, but it wouldn't be where I want to purchase just yet', contrasts with Park and Lim (2023).

Consistent with prior research (e.g. Dwivedi *et al.*, 2023), friction arising during the CXJ is attributable to technical issues, especially regarding user-to-system interactivity. Low ease of use and slow load times contribute to users' disengagement with metaverses. Furthermore, the lack of a VR headset with which to access the metaverse is perceived as an obstacle that limits sensory immersion. Spending more time in the metaverse (i.e. over 20 minutes) helps participants overcome some navigational issues, but technical difficulties deter them from staying.

## Discussion

This study explores the role of the metaverse in the CJ at the pre-purchase, purchase and postpurchase stages (RQ1) and the overall impact of MVR on the CXJ (RQ2). The positionality of the metaverse as a retail channel within OCR is only partially substantiated given the nascency of its adoption and its limited use beyond the pre-purchase stage. Unlike in previous studies (e.g. Kaur *et al.*, 2024; Oleksy *et al.*, 2023), the participants of this study are fashion metaverse users (as opposed to gamers) purposely chosen to evidence current and potential future metaverse engagement with core consumer segments (Hadi *et al.*, 2024). No known study explores the role of the metaverse in the CJ despite its essentiality in retailers' future-oriented omnichannel strategies (Dwivedi *et al.*, 2022; Hadi *et al.*, 2024; Silva *et al.*, 2024). Our study fills this gap, elucidating the varying influence of MVR at the different stages of the CJ. The metaverse shows the most relevance to the pre-purchase stage, where users are motivated by curiosity, the desire to explore and information seeking. Previous research indicates that the interactive nature of immersive technologies evokes emotions and provides enjoyment in virtual environments (ben Saad and Choura, 2024). Retailers should focus their metaverse-related efforts on the pre-purchase stage. Beneficial actions include creating metaverse stores that are digital twins of the brand's physical stores. Customers should be able to buy physical or digital items, and brands should offer digital twins of their products (i.e. physical and digital replicas) that users can wear on their avatars.

The findings of this study show that the metaverse can influence offline purchases, and vice versa; therefore, strengthening its virtual try-on function will improve the omnichannel experience. Moreover, a finding of this study that diverges from Park and Lim (2023) reveals sources of friction related to technical issues, which negatively impact the CXJ. This may explain the 70% year-on-year decline in MVFW attendance (Hanson, 2023). Retailers must address these problems to realize the potential of the metaverse as a retailing channel.

Theoretically, the metaverse customer experience journey (M-CXJ) framework (Figure 3) represents an experiential perspective of the CJ, the key stages of which are depicted on the x-axis (Lemon and Verhoef, 2016; Towers and Towers, 2022; Yoo *et al.*, 2023). This framework shows that the role of the metaverse is the most influential at the pre-purchase stage, where it evokes positive and negative reactions. Although extant conceptual studies explore the opportunities metaverses afford regarding the CX (Dwivedi *et al.*, 2023; Joy *et al.*, 2022;

Park and Lim, 2023), our empirical study offers a new and arguably more balanced perspective. Collectively, customer responses across the CJ show that the metaverse affects customer satisfaction, consumer desire to engage (approach) or disengage (avoidance) and the overall CX outcome (on the right). Additionally, encountering friction while engaging with the metaverse affects the CJ and overall experience (below). This integrated framework provides scholars and practitioners with multidimensional factors and explains their interplay and potential impacts in the design and implementation of metaverse stores and/or experiences aimed at enhancing the CX. Our study finds that the overall metaverse CXJ is unfulfilling from the perspective of fashion customers, necessitating further consideration of user-to-system interactivity. However, given that this tool is in an embryonic state, the findings signify a considerable scope and opportunities for further development.

[Insert Figure 3 about here]

## Conclusion

Although many fashion retailers have created MVR environments (Elmasry *et al.*, 2022; Park and Lim, 2023; Pillai *et al.*, 2024), and several scholars posit conceptual developments (Barrera and Shah, 2023; Dwivedi *et al.*, 2023; Hadi *et al.*, 2024; Yoo *et al.*, 2023), there remains a dearth of related empirical studies (Alexander *et al.*, 2024; Kaur *et al.*, 2024; Kumar *et al.*, 2024). Consequently, the methodological novelty of this study lies in engaging with fashion metaverse users through a multi-method qualitative case study with the aim of deriving a rich understanding of MVR and the CXJ (Dwivedi *et al.*, 2023; Koronaki *et al.*, 2023) to contribute new knowledge to an emerging field. It is the only known study on MVR from an omnichannel CX perspective. The research illustrates divergent views on the fashion metaverse CX at each stage of the CJ and confirms the potential of the metaverse to enhance the retail CX.

## Theoretical implications

The study has theoretical and practical implications related to MVR and the CXJ. It benefits metaverse designers and customers while also influencing retailing strategies. Furthermore, given that this research is situated in an underdeveloped field, it advances the body of knowledge by contributing conceptual frameworks to the multidisciplinary CX (Fig. 1; e.g. Koronaki *et al.*, 2023; Silva *et al.*, 2024; Wang *et al.*, 2024) and CJ (Fig. 2; e.g. Grewal and Roggeveen, 2020; Lemon and Verhoef, 2016; Towers and Towers, 2022) domains.

This study extends the CXJ construct to the MVR space and provides novel insights into the role and relative importance of the metaverse at each stage of the CJ, demonstrating its potential to enhance the CX. Moreover, the research situates the metaverse within the immersive virtual setting of OCR, thereby extending the body of knowledge on OCR. Omnichannel integration and the interplay of online and offline channels during the CJ is a research priority requiring further investigation as new channels such as the metaverse emerge. This paper provides further insight into specific aspects related to omnichannel integration such as integration perception and research shopping behaviour (Sharma and Dutta, 2023). It also contributes knowledge related to pre-purchase, purchase and post-purchase behaviour in the metaverse (Yoo *et al.*, 2023)

Additionally, it expounds on the extent to which fashion customers use the metaverse, the purpose of their use and the sources of friction that impede the metaverse CXJ. The findings indicate user concerns with digital wallet pre-authorization at the purchase stage as a cause of

discomfort and friction in the CJ. This highlights an opportunity for future research on consumer discomfort due to privacy concerns in the metaverse. Further research should investigate the role of trust in digital payment systems used in immersive virtual spaces and examine the impacts of different security measures on the CX. Our findings also indicate that brand preference influences willingness to engage with specific metaverses, suggesting that future research should explore the impact of the metaverse on brand experience and loyalty.

## Practical implications

The study provides useful insights into factors to consider when designing the metaverse CX and ways in which metaverses can coexist and interact with other channels and touchpoints toward a seamless omnichannel CXJ. The findings reveal that the ability to virtually try digital garments, access digital twins and attend one-off events are the main reasons for metaverse use. Therefore, we suggest that one-off event-based experiences are more effective at activating and assisting the CJ than persistent metaverse stores. Moreover, the findings evidence the negative impact of technical issues related to the CXJ, indicating the necessity of improving user-to-system interactivity. To enhance both, we recommend that retailers provide user support in the form of tutorials and guidance to help them navigate the metaverse effectively. Additionally, to address the lack of VR headsets, retailers should consider partnering with VR hardware companies to offer rental programs that would ease consumer access to immersive experiences. Finally, implementing features that encourage longer interactions, such as gamification elements or interactive experiences, can help users acclimate to the metaverse environment and reduce navigational challenges over time. By taking these steps, retailers can nor nor focus on strengthening utility value, immersion, sociability and interoperability to enhance the omnichannel CJ.

## Societal Implications

The findings of the study also highlight the critical role of user-to-user interactivity, social presence, and connectedness in shaping the CX within the metaverse, in line with existing studies (Barrera and Shah, 2023; Koronaki *et al.*, 2023; Oh *et al.*, 2023). Yet, our study reveals a significant gap in realising these social benefits, with participants describing a *lack of social presence* and *feelings of loneliness* in metaverse spaces. This sense of isolation undermines the potential of the metaverse to deliver its theorised social advantages, such as community-building, connectedness, and the reduction of isolation. Addressing these challenges by prioritising strategies to enhance social presence and foster active, real-time interaction can unlock the metaverse's potential as a socially engaging space that supports meaningful connections and combats feelings of loneliness often associated with digital environments.

#### Limitations and future research directions

Despite the contributions of this research, the study has limitations related to the sample size, the fashion context and its composition of a single metaverse case study. Similar research should incorporate other industries and different customers and cases as metaverses become more pervasive. Moreover, different enquiry methods may be employed, such as qualitative, quantitative and mixed designs.

Additionally, our M-CXJ framework warrants further study. Given that the metaverse represents an emerging virtual environment, retailers should consider the implications (benefits, risks and responsibilities) of creating and encouraging consumers to engage with

metaverses. This offers worthwhile avenues for scholarly investigation beyond the specific fashion context considered in this study as the metaverse is considered highly relevant for all areas of retailing (Yoo *et al.*, 2023). Methodologically, scholars acknowledge that the CJ is dynamic and subject to change (Koronaki *et al.*, 2023; Towers and Towers, 2022). Therefore, future research should ideally take a longitudinal approach to assessing changes in metaverse immersive environments and their impact on the CX and CJ. This study expounds on the potential of the metaverse to enhance the CXJ in the fashion industry and provides a useful starting point for extended exploration in the omniverse retailing domain.

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Table 1: Fashion metaverse participants.

Participant No.	Generation	Fashion metaverse's experienced	Metaverse platforms experienced
1	Gen Z	Gucci Vault, Chanel, Nike, Clarks, Svbarite, Adbada	Roblox, Decentraland
	Gen Z	MVFW: Coach, Neo Plaza, Fashion Street Estate, Play Dear Vivienne, DressX	Zepeto, Decentraland
3	Millennial	MVFW, Dematerialised, DressX, Gucci World	Roblox, Decentraland
4	Millennial	MVFW: House of Web 3.0, SHOWstudio and Vogue Singapore, Coach, Adidas, Vogue Singapore, Dear Vivienne Westwood	Spatial, Dencetraland, Foundation, OpenSea
5	Millennial	MVFW: Dundas, Clarks, Coach, Adidas, Haus of Fuego, Auroboros, Ben Bridge, DKNY, Dolce & Gabbana, Tommy Hilfiger, DressX, Dear Vivienne, Vogue Meta-Ocean, Gucci Vault	Sandbox, Decentraland
6	Millennial	Spatial.io, Zero 10, DressX	Roblox, Spatial.io
1	Gen Z	Adidas	Roblox, Minecraft
8	Millennial	MVFW: Adidas, DKNY, Coach, Dolce & Gabbana, Altr, Institute of Digital Fashion, DressX, Fabricant, Tommy Hilfiger	Roblox, Decentraland
9	Millennial	MVFW: Dundas Spatial Store, Diesel	Decentraland, Spatial, Roblox, Sandbox
0	Millennial	MVFW, Dematerialised, The Fabricant, Roberto Cavalli Mansion	Decentraland, Spatial, Roblox, Sandbox, Open Sea
1	Millennial	Gucci × Zepeto	R3, Zepeto, Gathertown, Fortnite
2	Millennial	Nike Swish, DressX	Decentraland, Spatial, Roblox, Zepeto, Ready Player Me
13	Millennial	MVFW: Coach, Adidas, Auroboras, Dundas, Balenciaga, Vivienne Westwood, Alo Yoga	Decentraland

14	Millennial	MVFW: Coach, Tommy Hilfiger,	Decentraland,
		Dolce & Gabbana, Balenciaga, Dear	OpenSea
6		Vivienne Westwood	
15	Gen Z	DressX	Decentraland,
			Spatial
16	Gen Z	n/a	Fortnite
17	Gen Z	n/a	Fortnite
18	Gen Z	Moncler Genius, Vogue x Snapchat	VR Chat, VSpatial
19	Millennial	MVFW, Gucci × Zepeto, L'Atelier ×	Decentraland,
		Decentraland, Zero10	Zepeto, Outernet
			(VR)
20	Millennial	Gucci Garden	Alt Space, Kooler,
			MV on Oculus

Table 2: Diary and focus group method protocols.

Diary method			
Unit of analysis: MV	FW 28–31 March 2023		
Areas/events to	Coach, Fashion Street Es	state, Neo Plaza, Arts Gala, Dundas ×	
visit* (*not	DressX runway show, D	KNY × MVFW closing party	
restricted to)			
Section 1	Metaverse environment	Spatial, design, immersion, social presence and impact.	
Section 2	MVFW impressions	Auto-photography – metaverse stores/events for focus group photo- elicitation; upload to Padlet.	
Section 3	Purchase experience journey	Touchpoint, channel interactions, frictions across purchase journey, CX response, approach, avoidance, satisfaction etc.	
Focus Group method			
Metaverse CXJ			
Personal information	, e.g. age, gender, occupat	ion	
Theme 1:	Metaverses visited, Projective technique – fashion metaverse		
Metaverse meaning	interactions, fashion bubble drawing – 'what comes to mind'		
and experiences	nd experiences brands associated with Integration of MVFW diary entries		
	metaverses, typical		
	fashion shopping behaviours	1	
Theme 2: MVFW	Metaverse dimensions,	Integration of MVFW diary entries	
environment and	environment stimuli,		
dimensions	perceptions of		
	metaverse space vs		
	physical space		

Page 31 of 40		International Journal of Retail & Distribution Management		
1				
2 3 4 5 6 7 8 9 10 11	Theme 3: MVFW purchase experience journey	Touchpoint and channel interactions, impact on the CXJ i.e. cognitive, affective, behavioural, social, overall metaverse experience	Integration of MVFW diary entries and photo-elicitation	
12 13 14 15				
15 16 17 18				
19 20 21				
22 23 24 25				
26 27 28				
29 30 31				
32 33 34 35				
36 37 38				
39 40 41 42				
43 44 45				
46 47 48				
49 50 51 52				
53 54 55				
56 57 58 59				
60				





 Figure 2: MVR data structure



## 4 Figure 3: Metaverse customer experience journey (M-CXJ) framework

	Pre-purchase	Purchase	Post-purchase	
verse CXJ	Cognitive: Curiosity, novelty, information seeking, discovery, brand preference	Cognitive: purchase prevention Utility value, trust, digital payment processes	Cognitive: Inspiration, engagement	Experience outcomes
	<i>Affective:</i> Excitement, fun, freedom, limitless, boredom, dullness, frustrated, loneliness	Affective: Exclusion, abandoned, detached, underwhelmed, brand attraction	Affective: Enjoyment, excitement, pride, achievement	Metaverse response: +/- Satisfaction +/- Approach / avoidance +/- Overall experience
M et	Behavioural - willingness to use: Virtual try-on, digital twins, attend brand events, co-creation, digital freebies	Behavioural - act prevention: Knowledge, utility value, ease of use, usefulness. Use: visit other channels, interoperability	Behavioural - intention to act: Utility value, digital currency, advocacy	
	Social: Sociability, social presence, connectedness to others	Social prevention: Social isolation inaccessibility	Social: Brand community, self- efficacy, social approval, sharing	
	<u> </u>		<u> </u>	
	Ease of use, currency, technical, immersion			
		Metaverse frictions		

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## Metaverse retailing and the customer experience journey: a case study approach

#### Short commentary in response to Reviewer 2.

The reviewer's comments requiring a response are in **bold** and our response to each is in blue. We highlight any text changes to the manuscript in yellow.

#### **Recommendation: Minor Revision**

Comments:

The paper provides valuable insights into the role of the metaverse in retailing, specifically within the fashion industry. The focus on the metaverse customer experience journey (M-CXJ) and its integration into omnichannel strategies offers a fresh perspective. However, certain areas require **further refinement to strengthen the paper's contribution and practical applicability.** Response: Thanks for the comment. We provide further evidence of the paper's contribution and practical applicability in the paragraphs below following the specific comments provided.

1. Originality: Does the paper contain new and significant information adequate to justify publication?:

The paper provides new insights into the metaverse as a retail channel, specifically within the fashion industry. It develops two conceptual frameworks: the metaverse customer experience journey (M-CXJ) and its role in omnichannel retailing. However, **its originality is slightly constrained by its reliance on a single case study (Metaverse Fashion Week), which limits broader applicability**.

Response: Thank you for your comment. We believe the originality of our study lies in its extension of the CXJ (Customer Experience Journey) to the metaverse retailing (MVR) space, providing novel insights into the role and relative importance of the metaverse at various stages of the Customer Journey (CJ). The findings demonstrate the metaverse's potential to enhance customer experiences while situating this immersive technology within the broader framework of omnichannel retailing (OCR), thereby extending the existing body of knowledge on OCR and extending beyond the fashion context, to retailing more broadly. While we have deliberately focused on a single case study, the methodological innovation of our research lies in engaging with fashion metaverse users through a multi-method qualitative approach. This enabled us to derive a rich and nuanced understanding of MVR and the CXJ, directly responding to calls for further research in this area (e.g., Dwivedi et al., 2023; Koronaki et al., 2023). Our study is original as it represents the first known exploration of MVR from an omnichannel CX perspective. However, we acknowledge the limitation of adopting a single case study and have explicitly discussed this in the limitations section of the manuscript.

It is important to note that the single-case study approach is a well-established methodology in both management and retailing literature. As Yin (2014) highlights, the number and type of case studies should be aligned with the **purpose** of the inquiry. Given the exploratory nature of our research, which seeks to investigate the metaverse's role in the customer purchase journey - a relatively underresearched area - we determined that an instrumental single-case approach was the most suitable. Despite the growing development of metaverse commerce (Payal et al., 2024), there remains a lack of empirical understanding of the metaverse's impact on the CJ and its influence on the overall purchase experience. This highlights the necessity for further research in this area (e.g., Dwivedi et al., 2023; Gao et al., 2023; Silva et al., 2024). Furthermore, single-case studies have been successfully adopted in several articles published in the International Journal of Retail & Distribution Management. For instance:

- Yu, W. & Ramanathan, R. (2012). "Effects of business environment on international retail operations: case study evidence from China." *International Journal of Retail & Distribution Management*, 40(3), pp.218–234.
- Kapoor, S., Banerjee, S., & Signori, P. (2022). "The role of retailers during brand scandals: insights from a case study." *International Journal of Retail & Distribution Management*, 50(2), pp.276–298.
- Paredes, K.M.B., Olander Roese, M., & Johansson, U. (2023). "Towards retail innovation and ambidexterity: insights from a Swedish retailer." *International Journal of Retail & Distribution Management*, 51(13), pp.1–15.

These examples further support the appropriateness of our methodological approach and its relevance within the academic field.

2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?:

The paper demonstrates a solid understanding of the literature, referencing relevant works on customer journeys, metaverse retailing, and omnichannel strategies. However, **some significant areas, such as the technical challenges of metaverse integration or comparisons to other virtual environments like gaming platforms, are underexplored.** 

Response: We greatly appreciate the reviewer's feedback. Regarding the technical challenges of metaverse integration and comparisons to other virtual environments, such as gaming platforms, we have addressed these areas within the manuscript but would like to further clarify our approach and contributions.

Our study intentionally focuses on everyday fashion consumers rather than gamers, who have already been widely studied in existing literature and are more accustomed to virtual environments. By examining fashion metaverse users, we sought to explore a less-researched consumer segment to provide insights into how core, non-gamer consumers engage with and experience the metaverse specifically within their shopping journey (Hadi et al., 2024). Unlike prior studies that primarily examine gamers (e.g., Kaur et al., 2024; Oleksy et al., 2023), our findings highlight critical sources of friction unique to this group, particularly technical issues that negatively impact the Customer Experience Journey (CXJ). For instance, our study identifies challenges related to user navigation and system inefficiencies, which are key factors contributing to the 70% year-on-year decline in Metaverse Fashion Week (MVFW) attendance (Hanson, 2023). In comparison to gaming platforms, which often incorporate advanced interactive elements and streamlined user experiences, our findings suggest that metaverse retailing still faces significant issues. To address these issues, we recommend that retailers:

**Enhance Technical Accessibility:** Retailers should provide user support through tutorials and guidance to help users navigate metaverse platforms more effectively.

**Improve Hardware Access**: Everyday fashion consumers may lack access to VR equipment. Retailers could partner with VR hardware companies to introduce rental or trial programmes to ease consumer access to immersive experiences.

**Incorporate Interactivity:** Drawing lessons from gaming platforms, retailers could integrate gamification elements or interactive features to encourage longer user engagement and reduce navigation challenges over time.

These strategies align with best practices from virtual gaming environments while addressing the unique needs of fashion consumers, who may not possess prior experience with immersive technologies. Additionally, we have acknowledged in the manuscript the need for further research into the comparative experiences of different user segments, including gamers and non-gamers, as

#### well as further consideration of other industries as metaverses become more pervasive

3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?:

The methodology is well-designed for exploratory research, employing a qualitative approach with diaries and focus groups. The choice of Metaverse Fashion Week is appropriate given its prominence in the field. However, **the small sample size and single-case design limit the generalizability of the findings.** 

Response: Thanks for your positive feedback on the appropriateness of the methodology. We are aware that the small sample size and use of case study limits the generalisability of the findings as has been discussed in the limitations. However, the M-CXJ framework provides opportunities for further research that could contribute to generalise these results if it is applied from a quantitative approach. On the other hand, the benefits of the case study have been further discussed in comment 1 above.

4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?:

The results are presented clearly, with thematic analysis providing insights into user experiences across the customer journey. However, **some findings, such as the friction caused by technical issues, are discussed but lack actionable solutions or deeper analysis.** The conclusions tie together the study's elements effectively but **could further address broader implications for retail beyond the fashion industry.** 

Response: Thanks for your feedback regarding results. In relation to the friction caused by technical issues, recommendations to overcome these issues are provided in the practical implications section. It includes specific recommendations such as providing user support in the form of tutorials and guidance to help them navigate the metaverse effectively, partnering with VR hardware companies to offer rental programs that would ease consumer access to immersive experiences or implementing features that encourage longer interactions, such as gamification elements or interactive experiences, can help users acclimate to the metaverse environment and reduce navigational challenges over time"

With regards to discuss implications beyond the fashion industry, this has been indicated now in the opportunities for further research making clear that the metaverse is relevant for all areas of retailing (Yoo et al., 2023).

5. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?:

The paper identifies implications for improving customer experience and integrating metaverse retailing into omnichannel strategies. It highlights the economic potential of virtual try-ons and brand community building. However, **the societal impact is not deeply explored, and practical recommendations for overcoming technical barriers are limited.** 

Response: Thank you for your comment. As noted in comment 2, our findings suggest that metaverse retailing still faces significant issues. To address this, we propose the following practical recommendations for overcoming technical barriers (also see comment 4), such as:

**Enhance Technical Accessibility:** Retailers should provide user support through tutorials and guidance to help users navigate metaverse platforms more effectively.

**Improve Hardware Access**: Everyday fashion consumers may lack access to VR equipment. Retailers could partner with VR hardware companies to introduce rental or trial programmes to ease consumer access to immersive experiences.

**Incorporate Interactivity:** Drawing lessons from gaming platforms, retailers could integrate gamification elements or interactive features to encourage longer user engagement and reduce navigation challenges over time.

Concerning societal implications, the findings of the study highlight the critical role of user-to-user interactivity, social presence, and connectedness in shaping the CX within the metaverse. Yet, our study reveals a significant gap in realising these social benefits, with participants describing a *lack of social presence and* feelings of *loneliness* in metaverse spaces. This sense of isolation undermines the potential of the metaverse to deliver its theorised social advantages, such as community-building,

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