

# Exploring users' migration from social media to the metaverse: A push-pull-mooring framework analysis<sup>1 2</sup>

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## Abstract

**Frame of the research:** *The rise of the metaverses is transforming digital social interaction, offering both challenges and opportunities for digital marketing. While prior research has examined the adoption of metaverses for educational and shopping purposes, little attention has been paid to their emerging role as social platforms - and specifically to the factors that drive users to migrate from traditional social media, viewing metaverses as their potential next iteration.*

**Purpose of the paper:** *To address the gap in current research, the present study combines the Push-Pull-Mooring (PPM) framework with Social Identity Theory to investigate the factors influencing users' switching intentions from social media to the metaverses.*

**Methodology:** *To test the proposed "Meta Switching Model," a cross-sectional survey was conducted, collecting data from 151 meta-users of Fortnite. The data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM).*

**Findings:** *Results indicate that perceived usefulness, ease of use, and social identity significantly influence switching intention, whereas - contrary to initial hypotheses - social media fatigue and dissatisfaction were found non-significant.*

**Research limits:** *The study focuses on a single metaverse platform (Fortnite) and a relatively limited sample. Future research should compare behaviours across different metaverses and cultures, and explore avatar-based identity formation through mixed or neuromarketing methods.*

**Practical implications:** *Managerially, the findings underscore the importance for marketers of designing immersive experiences that align with the identity dynamics, values, and cultural codes of the communities within the metaverses.*

**Originality of the paper:** *Applying Social Identity Theory as a mooring factor for the first time, this study shows that migration to metaverses is driven more strongly by identity-based motivations than by dissatisfaction with existing social media. By*

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**Key words:** *metaverses; social identity; social media discontinuation; switching intention; push-pull-mooring; PLS-SEM*

## 1. Introduction

At the beginning of this decade, the rapid digital expansion of consumer activities has fostered the emergence of the concept of the metaverse, defined as “an interoperated, persistent network of shared virtual environments where people can interact synchronously through their avatars with other agents and objects” (Kim, 2021, p. 142). To emphasise the plurality of this ecosystem, we refer to these environments as “metaverses”. These spaces reflect the growing tendency of digital natives to spend significant portions of their lives online, increasingly seeking social, emotional, and symbolic gratification in digital environments (Ameen *et al.*, 2023; Mertala *et al.*, 2024; Wearesocial and Meltwater, 2024).

The transformation of digital interaction through the metaverses calls for a strategic reassessment of marketing practices. The scale of this transformation is underlined by economic projections, which estimate the meta-economy to be worth USD 485.8 billion by 2030 (Statista, 2023). Companies are increasingly embedding metaverse-based initiatives - such as co-creation, gamified storytelling, and virtual influencers - into key stages of the customer journey, as they explore new forms of engagement and brand interaction (Mancuso *et al.*, 2023). By enabling social interaction in shared virtual environments, the metaverses reproduce typical social media features (Kietzmann *et al.*, 2011), while responding to a broader demand for more coherent and meaningful digital social experiences. In this sense, the metaverses may be viewed as a potential evolution of social media (SM), especially as user preferences continue to diversify across different platforms (Wearesocial and Meltwater, 2024).

While academic interest in the metaverses is growing, the current literature has primarily explored adoption in contexts such as online shopping and education (Wang and Shin, 2022). However, little is known about their role as social platforms, and specifically about the factors that may motivate users to switch from traditional SM to the metaverses for social interaction (De Felice *et al.*, 2023). This research addresses this gap by asking the research question: “*What are the key factors influencing users’ intention to switch from traditional social media to the metaverses?*”.

To answer this question, we employ the Push-Pull-Mooring (PPM) framework (Bansal *et al.*, 2005), widely used to explain consumer switching behaviour. In the present study, push factors capture dissatisfaction with existing SM platforms, pull factors reflect the attractiveness of the metaverses, and mooring factors - drawn from Social Identity Theory (SIT; Tajfel, 1981) - represent social and personal dimensions that may either inhibit or facilitate switching. In fact, we argue for the inclusion of

this identity-based dimension based on the proposition that switching to a metaverse platform may be fundamentally driven by the user's desire to redefine their social identity through a new form of community belonging. Based on this, we develop and empirically test a “*Meta Switching Model*” through a cross-sectional, survey-based methodology.

This study makes two key theoretical contributions. First, it advances understanding of the metaverses as emerging social interaction platforms, examining their potential to supplement or replace traditional SM. Second, integrating PPM and SIT provides a new theoretical viewpoint: beyond just dissatisfaction with existing platforms or the attraction of new features, users may experience an identity-driven digital migration as a means to redefine how they engage with online spaces. Additionally, it offers practical implications for companies aiming to leverage the metaverses as tools for digital marketing and for interacting with their audiences and customers.

## 2. The metaverses

The prospect of creating a single, unified “metaverse” as a virtual replica of the real world has shifted from a futuristic literary concept to a plausible reality, with profound implications - including for marketing practices. Its evolution has been marked by significant intersections with virtual worlds and their applications in gaming (Papagiannidis *et al.*, 2008), retail (Bourlakis *et al.*, 2009), and social interactions (Schroeder *et al.*, 2001). Recent contributions (Park and Kim, 2022; Yoo *et al.*, 2023; Aiolfi and Luceri, 2024) reveals the following features of the metaverse: a) it is a three-dimensional digital environment that is interoperable, persistent, and continuously accessible; b) it constitutes a globally decentralised platform without specific jurisdictional constraints regarding data sharing, based on a technological infrastructure that enables the ownership of non-replicable virtual objects; c) it is accessible - though not exclusively - through technologies that facilitate high levels of immersion (e.g., head-mounted displays); and d) it is navigable through digital representations known as avatars, which allow interaction with other users and the environment.

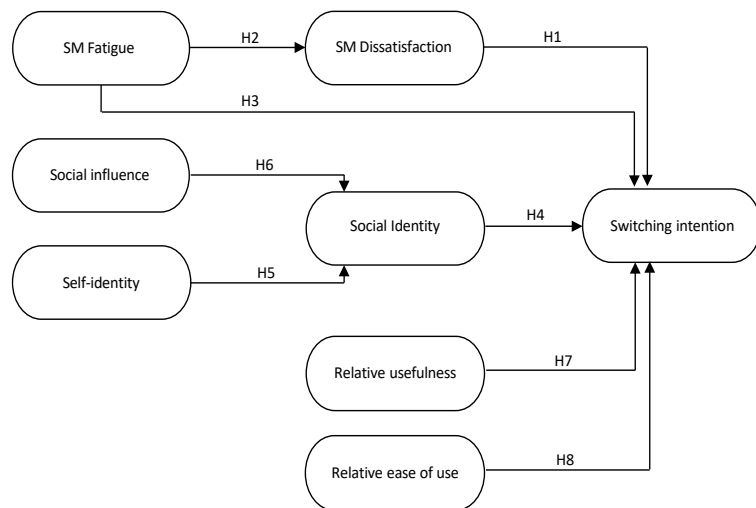
However, the current state of technology makes metaverse-related applications not yet fully usable or accessible to the general public, thereby limiting their overall adoption levels. Nonetheless, a multitude of metaverses are available (Yoo *et al.*, 2023) which, in various configurations and to differing extents, incorporate the features outlined above. The application domains of the metaverses vary considerably; indeed, the academic literature identifies three distinct categories of these virtual spaces: a) industrial metaverses, employed by companies to optimise prototyping and testing phases through the creation of digital twins (Wang *et al.*, 2024); b) corporate metaverses, designed to support internal collaboration among employees (Kumar *et al.*, 2023); and c) consumer metaverses, aimed at end-users and offering immersive experiences and novel dimensions of social interaction (Kshetri and Dwivedi, 2023). This latter category is the specific focus of this study and is referred to as “metaverses” herein.

The metaverses redefine virtual engagement by offering environments - accessible with varying degrees of immersiveness - that leverage the hedonic component of online space usage. These new spaces act as novel touchpoints for their estimated global audience of nearly 500 million users, with Europe emerging as the fastest-growing market (Statista, 2023, 2025a), challenging brands and retailers to implement innovative digital marketing practices for managing and monitoring the customer journey. For this reason, the metaverses are considered an evolution of the internet (De Felice *et al.*, 2023), representing a transformation in user-to-user and user-to-brand interaction within digital contexts, thereby extending beyond the boundaries of traditional SM. Accordingly, in online gaming worlds, socialising and meeting new people are activities aimed at more than half of the players within them (Statista, 2025b)

### 3. Theoretical background and hypothesis development

#### 3.1 Push-Pull-Mooring (PPM) Framework: meta switching model

Fig. 1: Conceptual Model: Meta Switching Model (MSM)



Source: Authors' own work

The PPM framework is a commonly used model for examining the factors that drive consumers' switching behaviours (Bansal *et al.*, 2005). The model was initially designed to analyse the reasons why people choose to migrate from one place to another (push factors), as well as the attractive elements that make a destination more desirable than the place they left (pull factors) (Bogue, 1969, 1977). This "push-pull" model was subsequently extended to include social, personal, and contextual factors that could influence the decision to migrate - known as mooring factors (Lee, 1966).

Since its introduction to the marketing field by Bansal *et al.* (2005), the PPM model has been widely utilised to elucidate consumers' switching behaviour, and its efficacy has been corroborated over time. The PPM model has been extensively adopted in studies on social networking sites (Hsieh *et al.*, 2012) and online games (Hou *et al.*, 2011), thereby introducing the concept of cyber migration (Zengyan *et al.*, 2009).

The primary objective of this study is to assess the validity of the proposed PPM-based “*Meta Switching Model*”, illustrated in Fig. 1, through a structural equation modelling approach. This model is designed to analyse the factors influencing users' transitions from traditional SM to the metaverses. The following paragraphs present the formulated hypotheses and provide a rationale for each.

### 3.2 Push Factors

Since the advent of the Internet, SM has become an invaluable tool for individuals to communicate, establish connections, consume, and generate content across various platforms. Ongoing advancements in hardware and computing capabilities have progressively enhanced the user experience within these platforms. Individuals can now exchange a variety of sophisticated multimedia content formats, representing a significant evolution from the basic, text-based communication typical of early blogs. The widespread use of SM has raised concerns about their impact, including increased perceived social isolation (Primack *et al.*, 2017), social anxiety, and loneliness (Wang, 2017).

Despite the continued growth in SM's overall user base (Wearesocial and Meltwater, 2024), recent years have seen a number of users across various platforms contemplating the discontinuation of their SM usage. This may result in temporary interruptions in their activity or even a complete cessation, as exemplified by practices like “*Monk Mode*” - a self-imposed period of heightened discipline and withdrawal from distractions aimed at fostering personal focus and development (Cassidy, 2023). According to a 2024 survey conducted by The Harris Poll (2024), 83% of Gen Z adults have actively tried to reduce their social media usage, and 32% report a desire to be less engaged with them.

Research on SM Discontinuation (SMD) has gained increasing attention due to its relevance to digital marketing efforts. Farooq *et al.* (2023) identified three types of SMD drivers - individual, relational, and platform-specific - highlighting that SMD behaviour can lead to reduced usage or complete withdrawal. Fu and Li (2022) observed that continuance and discontinuance exist on a spectrum of behaviours rather than as polar opposites. Ravindran *et al.* (2014) pointed out that users may take short breaks, moderate their activity, or suspend it entirely.

This study examines discontinuance in both its permanent and temporary forms. The factors contributing to SMD are considered push factors, as they represent motivations for users to disengage. In this context, Social Media Dissatisfaction (SMDISS) and Social Media Fatigue (SMF) were selected.

The decision to utilise SMDISS as the primary push factor is grounded in the well-established concept of dissatisfaction in the marketing literature, with numerous studies demonstrating its impact on the discontinuation of product and service usage.

Accordingly, Fan and Suh (2014) proposed a comprehensive model of technology switching, in which dissatisfaction is identified as a central factor. Furthermore, dissatisfaction is identified as a fundamental trigger within the PPM framework, ensuring a clear understanding of switching intentions related to the specific phenomenon studied (Marx, 2025). Based on the above, the following hypothesis is proposed:

H1: SMDISS positively affects the intention to switch from SM to the metaverses.

SMF is “*a temporary, however systematically triggered, state of fatigue caused by social media use*” (Islam *et al.*, 2020, p. 3). This dimension’s negative impact on the SM experience is understandable due to the harmful effects of SMF, which can lead to depression, anxiety (Dhir *et al.*, 2018), and lower academic achievement (Dhir *et al.*, 2019). Fernandes and Oliveira (2024) also showed that specific brand activities on SM, such as excessive branded content, irrelevant posts, and intrusive ads, can trigger SMF, resulting in lurking behaviours and reduced active participation.

Di Domenico *et al.* (2021) suggest that individuals experiencing SMF may be more prone to intentionally spreading misinformation, thereby decreasing the overall quality of the digital environment. This condition can be harmful not only to the individual but also to the wider user community, creating a ripple effect. Additionally, preliminary studies by Zhang *et al.* (2016) and Dai *et al.* (2020) found a link between SMF and dissatisfaction with SM. Based on these insights, the following hypothesis is proposed.

H2: SMF positively affects SMDISS;

The negative effects of SMF can directly lead users to discontinue use, as noted by Zhang *et al.* (2016). Ravindran *et al.* (2014) suggest that experiencing SMF might prompt users to suspend, monitor, or entirely stop their SM activities. Although fatigue generally discourages platform use, it can also specifically drive users to seek other options. Empirical studies across various platforms - mobile apps (Pang *et al.*, 2025), health information systems (Qiu *et al.*, 2026), and traditional social media (Yao *et al.*, 2015) - have supported this link. We expect a similar pattern in metaverse environments, which are considered new virtual spaces for social interaction (i.e., a type of SM) due to their unique interaction features. Based on this, we hypothesise that:

H3: SMF positively affects the intention to switch from SM to the metaverses.

### 3.3 Mooring Factors

Behaviours and processes arising from group membership have been extensively studied, leading over time to the establishment of SIT (Brown, 1999). The theory defines social identity as “*that part of an individual’s self-concept, which derives from his/her knowledge of his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership*” (Tajfel, 1981, p. 255). Early evidence from minimal group studies (Tajfel *et al.*, 1971) indicates that SIT is concerned with how individuals’ behaviours, thoughts, perceptions, and emotions are influenced by their attachment to and awareness of group membership. The theory suggests that being part of a social category fosters a “we” identity rather than strictly individualistic tendencies (Stets and Burke, 2000).

During participation in group dynamics, categorisation occurs (Terry *et al.*, 1999), leading to the establishment of boundaries. This process facilitates internal cohesion, including the development of shared beliefs, symbols, and norms, thereby fostering similarity. Simultaneously, it contributes to external differentiation, enabling the group to distinguish itself from others. Another process, self-enhancement (Terry *et al.*, 1999), motivates group members to reinforce elements of internal cohesion. This results in the accentuation of the distinctive attributes of one’s group in contrast to those of others.

The construct of social identity has been conceptualised both as a unified whole and as comprising several discernible dimensions. Bergami and Bagozzi (2000) identified three components of social identity: cognitive, evaluative, and emotional dimensions. Moreover, the cognitive dimension arising from the self-categorisation process may apply not only to a single group but to multiple groups simultaneously (Wang, 2017). Social identity plays a pivotal role in understanding user behaviour within virtual communities and environments (Bagozzi and Dholakia, 2002; Jiang *et al.*, 2016).

SIT introduces social stability as the perception that differences in status among groups remain constant (Van Bezouw *et al.*, 2021). When intergroup relations are seen as stable, this can discourage individuals from migrating. The presence of friends, family, and a strong social network in a particular area significantly reduces the likelihood of leaving (Flanagan, 1978). This phenomenon is evident in social media and online gaming contexts, where community belonging, peer pressure, and emotional bonds serve as an “anchor” preventing individuals from departing (Hou *et al.*, 2011; 2014).

However, social identity’s influence is not one-sided. SIT also discusses individual mobility, a strategy where people detach from one group to join a higher-status one. According to Karman and Lipowski (2024), brand-switching can be seen as a form of social mobility, occurring when individuals are unhappy with their current consumer group and move to another. In this context, metaverses could offer new platforms for finding relevant communities, especially when traditional social media encourages only passive participation (Dolan *et al.*, 2021).

Given the established link between social identity and user behaviour, it is reasonable to expect that users may prefer metaverses over SM for social interaction, particularly when these environments foster a sense of community and shared participation. Assuming social identity as a unidimensional construct and considering it in its role as a “bridge” toward the use of a new platform, the following hypothesis is proposed:

H4: Social Identity positively affects the switching intention from SM to the metaverses.

Social identity and self-identity are interrelated constructs. While social identity reflects an individual's sense of belonging to a group, self-identity refers to how individuals perceive their self-definition within broader social contexts (Terry *et al.*, 1999; Thorbjørnson *et al.*, 2007).

In digital environments, including the metaverses, this distinction is crucial as they provide new ways for individuals to showcase and expand their self-identities (Belk, 2013). Users exert considerable control over their digital personas through various forms of expression - such as customising avatars and engaging in social activities - thereby actively shaping their online experiences (Dwivedi *et al.* 2023).

This act of self-extension shows how identity processes support the formation of emotional commitment and a collective mindset, both of which underpin the creation of a social structure (Burke and Stets, 1999). Consistent with this, prior research shows that self-identity can reinforce social identity, particularly within virtual communities where personal engagement is closely linked to group affiliation (Cheng and Guo, 2015).

Thus, the ability to establish a clear self-identity can act as a precursor to the formation of a robust social identity. Accordingly, the following hypothesis is proposed:

H5: Self-identity positively affects social identity.

Social influence - also referred to as “subjective norm” or “social norm” - is a core construct in several established models, including the Theory of Planned Behaviour (Ajzen, 1991), the Unified Theory of Acceptance and Use of Technology (UTAUT), and UTAUT2 (Venkatesh *et al.*, 2003, 2012). It reflects the extent to which individuals perceive that important others expect them to perform a given behaviour. While social influence has been shown to effectively predict usage intentions in various contexts (Handarkho and Harjoseputro, 2020; Wang and Shin, 2022), other studies suggest that its effects may be mediated by social identity. For instance, Jiang *et al.* (2016) demonstrated that social influence can shape intentions through identity-related mechanisms, and Thorbjørnson *et al.* (2007) similarly found an indirect effect via social identity expressiveness. Based on this, the following hypothesis is proposed:

H6: Social influence positively affects social identity.

Pull factors within the PPM framework refer to the attributes of a new product or service that attract users and encourage switching behaviour (Bansal *et al.*, 2005). In the context of information systems, Davis (1989) identified perceived usefulness - the degree to which a user believes that using a system enhances his/her performance - and perceived ease of use - the extent to which using the system is free of effort - as key determinants of user acceptance in his Technology Acceptance Model (TAM). This framework has been widely validated across technological domains. For example, Hamari and Keronen (2017) highlighted their predictive value in a meta-analysis on online gaming, while Rauniar *et al.* (2014) applied them to the study of social media usage. Within this study, these constructs are understood as pull factors relevant to users' adoption of metaverse platforms.

Following the approach of Hsieh *et al.* (2012), this study focuses on two relative constructs - relative usefulness and relative ease of use - which compare the metaverses with traditional social media in terms of perceived benefits and usability. In this framework, the utilitarian dimension is specifically tied to users' goals of interaction and participation in digital environments, offering a basis for understanding switching intentions between platforms. In line with this, the following hypotheses are proposed:

H7: Relative usefulness positively affects the switching intention from SM to the metaverses;

H8: Relative ease of use positively affects the switching intention from SM to the metaverses.

## 4. Methodology

### 4.1 Measures

An online structured survey was employed, using existing and reliable scales sourced from the literature. Surveys are a widely utilised research tool across disciplines, providing valuable quantitative data on trends, attitudes, and opinions, as well as enabling the identification of correlations between variables (e.g., Lazar *et al.*, 2010). The scales were adapted to align with the dimensions of the proposed study. Participants were asked to indicate their level of agreement or disagreement with each statement using self-anchoring scales, with response options ranging from “*Strongly Disagree*” (value 1) to “*Strongly Agree*” (value 7). Appendix A presents the scales and all items used in the survey.

The survey was piloted on a preliminary sample to identify any issues related to question comprehension or the questionnaire's construction, before its administration to the main sample. Additionally, to minimise response set bias (Perreault, 1975), and to counteract primacy and recency effects (Krebs and Bachner, 2018), and to prevent common method variance, items were presented to respondents in a randomised order.

4.2 Sample and Procedures

The choice of Fortnite is justified as it exemplifies a social-focused metaverse, notable for its substantial influence and high number of monthly active users (Statista, 2023). With a global registry exceeding 650 million accounts, Fortnite sustains a baseline of 1.3 million daily active users, which can increase to 44.7 million during major events. The user demographic is primarily young adult males, with nearly 90% being male and over 80% aged between 18 and 34 (Kumar, 2026).

A self-report questionnaire was administered online by posting the survey link in several Facebook groups dedicated to Fortnite users. Two filter questions ensured participants were actively engaged with Fortnite (“Do you consider yourself part of the Fortnite community?”) and SM (“Which of the following social media do you currently use?”). The final sample included 151 participants, with 60.9% male and 37.1% female. Most were aged 26 to 35 years and primarily located in Europe (68.9%) and North America (18.5%). Sample details are provided in the Appendix B.

5. Findings

The analytical procedures employed in this study involved the use of the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach, utilising SmartPLS version 4.0.9.6 to test the hypotheses of the “Meta Switching Model” (Abdi, 2007; Ringle *et al.*, 2024).

The reason behind this choice is that PLS-SEM is well-suited to complex structural models and relatively small samples, where it maintains higher statistical power than covariance-based methods (Chin, 2009; Sarstedt *et al.*, 2022). Furthermore, PLS-SEM was preferred for its prediction-oriented approach (Chin, 2009; Sarstedt *et al.*, 2022).

Tab. 1: Results of Measurements

Construct	Cronbach's $\alpha$	rho_A	AVE	Mean (SD)
SMF	0.789	0.814	0.701	3.42 (1.44)
SMDISS	0.920	0.930	0.808	3.22 (1.61)
INF	0.872	0.880	0.796	2.27 (1.46)
SID	0.782	0.820	0.595	4.37 (1.37)
SELF	0.785	0.824	0.821	2.67 (1.73)
USE	0.889	0.898	0.817	3.79 (1.89)
EOU	0.899	0.907	0.833	3.17 (1.90)
SW	0.857	0.864	0.586	3.89 (1.41)

Source: Authors' own work

To assess the reliability and convergent validity of each construct, the adequacy of individual items and composite measures was evaluated (Dijkstra and Henseler, 2015; Hair *et al.*, 2014; Henseler *et al.*, 2015). Items that did not meet the factor loading threshold of 0.70 were excluded. The final measurement model is reported in Tab. 1, demonstrating satisfactory

results in terms of both convergent and discriminant validity, as evidenced by factor loadings, rho\_A, and average variance extracted (AVE). Factor loadings are either above or very close to the 0.70 benchmark. Cronbach's alpha and rho\_A values exceed the established threshold of 0.70, indicating internal consistency reliability (Dijkstra and Henseler, 2015; Hair *et al.*, 2014). AVE values are all above 0.50, confirming acceptable convergent validity (Sarstedt *et al.*, 2022). The heterotrait-monotrait (HTMT) ratio values, presented in Tab. 2, are all below the 0.85 threshold, indicating discriminant validity (Henseler *et al.*, 2015). Finally, for the common method variance test, all variance inflation factor (VIF) values were smaller than 2.17, well below the threshold of 3, indicating the absence of collinearity issues (Sarstedt *et al.* 2022).

Tab. 2: Heterotrait-monotrait (HTMT) ratio

	SMDISS	EOU	INF	SELF	SID	SMF	SW	USE
SMDISS								
EOU	0.341							
INF	0.106	0.455						
SELF	0.090	0.558	0.567					
SID	0.149	0.307	0.477	0.737				
SMF	0.811	0.289	0.217	0.149	0.168			
SW	0.130	0.567	0.451	0.678	0.685	0.142		
USE	0.165	0.668	0.397	0.590	0.459	0.141	0.612	

Source: Authors' own work

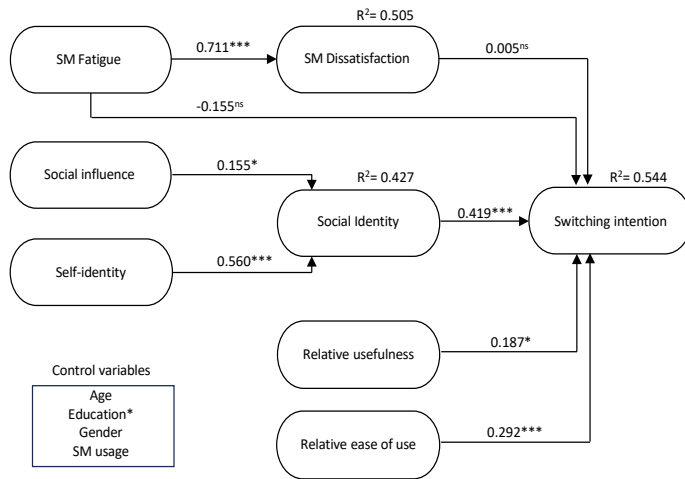
The bootstrap procedure was conducted using SmartPLS software to test the eight hypotheses. Age, education, gender, and the number of SM platforms currently used (serving as a proxy for SM usage) were included as control variables. A total of 5,000 bootstrap samples were employed, and a bias-corrected and accelerated 95% confidence interval was used to assess the model. The results of the path analysis, including all path coefficients and their corresponding significance levels, are summarised in Fig. 2.

The findings indicate that SMF is positively associated with SMDISS ( $\beta = 0.711$ ,  $p < 0.001$ ,  $f^2 = 1.022$ ), thereby supporting H2. In contrast, SMF ( $\beta = -0.155$ ,  $p = 0.108$ ,  $f^2 = 0.026$ ) and SMDISS ( $\beta = 0.005$ ,  $p = 0.953$ ,  $f^2 = 0.000$ ) did not significantly affect switching intention. Therefore, H1 and H3 were not supported. SMF accounts for 50.5% of the variance in SMDISS ( $R^2 = 0.505$ ).

Furthermore, the analysis revealed a positive relationship between social influence and social identity ( $\beta = 0.155$ ,  $p = 0.016$ ,  $f^2 = 0.033$ ), as well as between self-identity and social identity ( $\beta = 0.560$ ,  $p < 0.001$ ,  $f^2 = 0.428$ ), supporting both H5 and H6. These variables explain 42.7% of the variance in social identity ( $R^2 = 0.427$ ).

The results also show that social identity ( $\beta = 0.419$ ,  $p < 0.001$ ,  $f^2 = 0.285$ ), relative usefulness ( $\beta = 0.187$ ,  $p = 0.020$ ,  $f^2 = 0.043$ ), and relative ease of use ( $\beta = 0.292$ ,  $p < 0.001$ ,  $f^2 = 0.104$ ) have a positive effect on switching intention. Overall, 54.4% of the variance of switching intention is explained by the model. Accordingly, hypotheses H4, H7, and H8 are supported.

Fig. 2: PLS-SEM result



Note(s): \*\*\*: p-value < 0.001; \*\*: p-value < 0.01; \*: p-value < 0.05; ns: not significant

Source: Authors' own work

## 6. Discussion

### 6.1 Theoretical contributions

This study validates the applicability of the PPM framework in investigating consumer switching behaviours and their intentions regarding online service usage, further supporting its use, as demonstrated in previous research (Hsieh *et al.*, 2012; Sun *et al.*, 2017). The inclusion of the social dimension has highlighted its impact on user migration, which appears more pronounced than the purely utilitarian dimension - although the latter still exerts a meaningful influence on users' decisions to engage with the metaverses.

Factors like ease of use and perceived usefulness of these platforms for social activities - such as interacting with other users and content - are key drivers in attracting users to the metaverses. These results support earlier research (Hsieh *et al.*, 2012) and highlight the importance of utilitarian reasons in influencing users' decisions to change online services.

Among all variables included in the model, the mooring factor emerged as the most influential in explaining switching behaviour. The presence of social identity within the metaverses - nurtured by self-identity and social influence, as noted by Cheng and Guo (2015) - was shown to be a significant factor in motivating users to migrate from SM to the metaverses. This suggests that the formation of communities within the metaverses plays a crucial role in users' engagement by fostering involvement, a sense of belonging, and the sharing of values, purposes, and goals with other users.

Notably, overall dissatisfaction with SM usage and general fatigue did not significantly affect the intention to switch to the metaverses. This conclusion echoes the findings of Antón *et al.* (2007), who suggest that

other variables (e.g., unfair pricing policies) may be more predictive of switching intentions than dissatisfaction with the service. Nevertheless, this study confirms that fatigue and psychological pressure associated with SM activity do significantly influence user dissatisfaction, a result consistent with the literature on SM discontinuation (Farooq *et al.*, 2023; Fu and Li, 2022).

In summary, the results show that being “unhappy” with current SM doesn’t automatically cause people to want to switch platforms. Migration occurs only when a strong alternative is available. In the metaverse context, this shifts cyber-migration research focus to the attraction of new utilitarian benefits and the mooring strength of a new identity or community. Essentially, people migrate because they are attracted to the “new” rather than just fleeing the “old.”

## 6.2 Managerial implications

This research offers valuable insights for businesses seeking to improve their digital marketing strategies, especially those aiming to harness the benefits of the metaverses. Marketers should prioritise the social identity cultivated among meta-users, as it has the strongest impact on switching intentions. Companies wanting to establish a presence in this virtual space must consider the social identities of their target consumers. Within the metaverses, it is crucial to engage with the rituals and communication styles inherent to the platform. As a result, businesses need to develop a thorough understanding of the social processes occurring within these environments.

The diverse use of online platforms can support social listening efforts, helping companies to understand the dynamics of the meta-communities they aim to engage with. This understanding can inform the development of marketing strategies designed to boost community engagement and promote branding activities aligned with the platform’s social fabric. To create content that resonates with users’ social identities, companies might consider designing virtual experiences, games, and events that reflect the values, interests, and norms prevalent within the platform. Additionally, employing virtual influencers, brand ambassadors, or branded virtual products can further align a company’s presence with the culture of the metaverses.

In contrast to the conventional approach of targeting dissatisfied SM users, the findings of this study suggest that platform providers or marketers should avoid using dissatisfaction with the platform as a main strategic focus acquisition. Instead, they should invest in segmenting and identifying the most active SM communities, as they represent a promising target audience. From this perspective, current SM should serve as a strategic gateway to the metaverses, such as by supporting communities within their current digital environments and then providing them with meta-experiences to facilitate their transition. At the same time, companies with a well-developed brand identity and an active online brand community can leverage the metaverses to provide more immersive and differentiated interactions.

The utilitarian dimension remains a critical factor; thus, any proposal for new customer experiences must address both the value of the interactions offered and the ease of use of the environments. It is therefore essential to consider the usability of platforms accessible via Extended Reality technologies (e.g., head-mounted displays), which may still be perceived as complex or cumbersome. Alternatively, proposing new two-dimensional virtual environments accessible via commonly used devices such as smartphones and laptops may represent a viable and more inclusive solution.

## **7. Conclusions, limitations, and future research directions**

The utilisation of the PPM framework facilitates a deeper understanding of cyber migration behaviour, highlighting how consumers navigate the contemporary digital landscape and the role of the metaverses within this evolving environment. The significance of both social identity and the utilitarian dimension offers a substantial explanation for consumer switching intentions towards the metaverses. Nonetheless, further research is needed to clarify the role of discontinued social media usage in shaping consumers' presence on digital platforms.

Practitioners may derive valuable insights from this study to strengthen their strategic presence online, particularly those considering investment in building activities and experiences within the metaverses. This research underscores the importance of fostering a sense of community belonging and delivering a user experience that is both valuable and accessible.

The study suggests that the metaverses have the potential to redefine online interaction by offering environments conducive to community engagement. However, it is important to recognise that Fortnite's unique features may influence the significance of (social) identity factors differently than other metaverses. The presence of multiple platforms within the current metaverse ecosystem highlights the need for further research into their diversity.

Future research should explore how gamification, acting as an attractor in metaverses and possibly absent in traditional SM, influences identity-driven motivations. Investigating these game-like features might lead to new academic conversations about their role in either supporting or obstructing the shift from SM to other digital environments, such as the metaverses. It is therefore recommended that future research explore migration behaviours across various metaverses with different purposes or user demographics, such as Roblox, Minecraft, Decentraland, and Spatial. Such an approach would enable a comparison of user behaviours across different metaverses, rather than relying on a single platform as representative, thereby enhancing sample robustness and generalisability.

Regarding the application of SIT, we recognise two main limitations in this study: first, relying on a unidimensional measure of social identity might have overlooked its multidimensional nature; second, although social identity can be seen as a factor that promotes switching, it can also act as a barrier depending on its importance on the original platform. Exploring

both these aspects together could be a fruitful avenue for future research, examining how these opposing influences affect switching behaviour.

Moreover, investigating the cultural dimensions of users could provide additional insights into variations in social activities within the metaverses, helping to counteract the Western bias present in our sample. While our current sample was sufficient to identify several key factors, it might not have had enough power to detect smaller effects, such as the one observed for SMF ( $f^2 = 0.026$ ). Conversely, the influence of SMDISS was essentially negligible ( $f^2 = 0.000$ ), suggesting it does not impact switching intention in this context, regardless of sample size. Nonetheless, a larger and more diverse sample would help confirm these non-significant paths, improve the overall generalisability of the results, and ensure enough statistical power to establish that “mooring” factors are more influential than “push” motivations among users of various metaverses.

The emphasis on social identity also calls for further exploration, particularly regarding self-identity formation in these environments. As prior research indicates (e.g., Kang and Kim, 2020), the ability to interact in virtual environments via highly customisable avatars can significantly impact self-determination and influence attitudes and behaviours (Silva and Campos, 2024). Studying the role and implications of avatar-based interactions may offer a deeper understanding of key characteristics of emerging virtual worlds.

Additionally, future research should consider the application of neuromarketing tools to deepen understanding of consumer behaviour through the collection of biological data and brain imaging. These techniques can reveal insights into users’ mental processes, complementing and clarifying behavioural findings through experimental methods. Finally, qualitative approaches may provide a more nuanced understanding of users’ motivations and emotions within the metaverses, enriching the theoretical perspective and informing the development of future empirical studies and conceptual frameworks.

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## Appendix

### Appendix A - Survey Items

Giovanni Romano  
Beatrice Luceri  
Simone Aiolfi  
Exploring users' migration  
from social media to the  
metaverse: A push-pull-  
mooring framework  
analysis

SM fatigue (SMF), adapted from Fu and Li (2022)	
SMF1	I feel tired from my Social Media activities
SMF2	I feel rained from activities that require me to use Social Media*
SMF3	Using Social Media is a strain for me
SMF4	I feel burned out from my Social Media activities
SM Dissatisfaction (SMDISS), adapted from Fu and Li (2022)	
DISS1	I feel dissatisfied about my overall experience using Social Media
DISS2	I feel displeased about my overall experience using Social Media
DISS3	I felt discontented about my overall experience using Social Media
DISS4	I am not delighted about my overall experience using Social Media
Social Influence (INF), adapted from Venkatesh <i>et al.</i> (2012)	
INF1	People who are important to me think that I should use Fortnite
INF2	People who influence my behaviour think that I should use Fortnite
INF3	People whose opinions that I value prefer that I use Fortnite
Social Identity (SID), adapted from Tarrant <i>et al.</i> (2001)	
SID1	I am glad to be a member of the Fortnite community
SID2	I feel I do not have much to offer to the Fortnite community* (R)
SID3	I regret that I belong to the Fortnite community* (R)
SID4	I am a worthy member of the Fortnite community
SID5	In general, others respect my Fortnite community
SID6	Belonging to the Fortnite community is an important reflection of who I am
Self-Identity (SELF), adapted from Terry <i>et al.</i> (1999)	
SELF1	To engage in the Fortnite community is an important part of who I am
SELF2	I am not the type of person oriented to engage in the Fortnite community * (R)
SELF3	I would feel at a loss if were forced to give up the Fortnite community
Relative usefulness (USE), adapted from Hsieh <i>et al.</i> (2012)	
USE1	Fortnite helps me be more effective, share information, and make friends better than Social Media
USE2	Playing Fortnite would make it easier to share information and make friends than using Social Media
USE3	In general, using Fortnite is more useful to my life than Social Media
Relative ease of use (EOU), adapted from Hsieh <i>et al.</i> (2012)	
EOU1	Learning to play Fortnite would be easier for me than using Social Media
EOU2	It would be easier for me to become skillful at using Fortnite than Social Media
EOU3	I find that Fortnite is easier to use than Social Media
Switching intention (SW), adapted from Gerhart and Koohikamali (2019)	
SW1	I intend to increase my use of Fortnite in the foreseeable future
SW2	I intend to invest my time and effort on Fortnite
SW3	I intend to switch from Social Media to Fortnite
SW4	I am considering switching to Fortnite soon
SW5	The likelihood of me playing Fortnite is high
SW6	I am determined to play Fortnite

(R): reverse coded

\*: item dropped

Source: Authors' own work

Group	Frequency (N=151)	Percentage (%)
<i>Gender</i>		
Man	92	60.9
Woman	56	37.1
Prefer not to say	3	2.0
<i>Age</i>		
< 25 years	26	17.2
26-35 years	72	47.7
36-45 years	37	24.5
> 46 years	16	10.6
<i>Education</i>		
High school or below	87	57.6
Bachelor's degree	35	23.2
Master's degree or above	29	19.2
<i>Occupation</i>		
Unemployed	24	15.9
Student	17	11.3
Student worker	4	2.6
Part-time worker	14	9.3
Full-time worker	92	60.9
<i>Geographic Scope</i>		
Europe	104	68.9
North America	28	18.5
Asia	9	6.0
South & Central America	7	4.6
Africa	3	2.0

Source: Authors' own work