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Consumer Readiness for Metaverse Marketing: Evidence from Generations Y and Z in the Philippines

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ABSTRACT

The emergence of immersive digital environments has created new opportunities for organizations to engage consumers through Metaverse marketing. This study examines the awareness and acceptability of Metaverse marketing among Generations Y and Z in the Philippines. Guided by the Technology Acceptance Model (TAM), awareness was operationalized through the marketing mix dimensions (product, price, place, promotion), while acceptability was measured through perceived usefulness, perceived ease of use, and likelihood of adoption. A descriptive–correlational design was employed using survey data collected from 386 participants in the Philippine cities of Bacolod, Silay, and Talisay. Results indicate substantial awareness and generally positive perceptions of Metaverse marketing among both generational groups. Independent samples t-tests revealed no significant generational differences in overall awareness or acceptability. Pearson correlation analysis revealed a strong positive relationship between awareness and acceptability ($r = 0.746$, $P < 0.05$). The findings suggest that increasing consumer awareness of immersive digital environments can enhance readiness to adopt Metaverse marketing platforms.

Keywords: Metaverse Marketing, Digital Marketing, Consumer Behavior, Technology Acceptance Model, Generation Y, Generation Z, Philippines
JEL Classifications: M31, O33, D91

1. INTRODUCTION

The rapid development of digital technologies has significantly reshaped how organizations design and implement marketing strategies as well as deliver customer experiences. Recent studies emphasize that digital transformation and technology-driven marketing approaches are redefining consumer engagement, highlighting the increasing importance of data-driven platforms, content personalization, and advanced analytics in contemporary marketing environments (Faruk et al., 2025; Iankovets et al., 2025).

Among the most notable developments is the emergence of the Metaverse, a digital environment that extends beyond traditional internet use, envisioned as an interconnected virtual space where individuals can work, socialize, shop, and engage in entertainment through multiple devices and platforms (Pradeep et al., 2024). While the concept gained global attention with the rebranding of Facebook to Meta, its foundations lie in earlier developments in augmented reality (AR), virtual reality (VR), and immersive simulations, which continue to evolve and shape digital interaction.

Shen et al. (2021) and Buragohain et al. (2025) further underscore the Metaverse's potential across education, business, healthcare, and entertainment, offering new forms of engagement and collaboration, while also noting critical challenges including technological limitations, security and privacy concerns, and the need for regulatory frameworks to ensure safe and effective adoption.

Unlike conventional digital platforms that rely on observation, the Metaverse emphasizes participation, enabling consumers to

interact with brands, products, and services in more personalized and immersive ways. This aligns with prior research indicating that immersive technologies fundamentally transform customer experiences by integrating cognitive, emotional, behavioral, and sensory responses across the entire customer journey (Flavián et al., 2019; Flavián et al., 2024).

However, despite its promise, public acceptance of the Metaverse remains uneven. Concerns regarding data privacy, security, and the use of digital currencies continue to limit adoption (Cantu et al., 2024). More critically, the lack of clarity regarding its scope and operation has constrained broader utilization. Although both cohorts are recognized as digital natives, evidence suggests that their awareness and understanding of the Metaverse often remain narrow, confined largely to gaming, entertainment, and NFTs (Ameen et al., 2022).

As organizations increasingly experiment with immersive technologies, the Metaverse is becoming an emerging platform for innovative marketing strategies. Businesses are beginning to create virtual brand environments, immersive product demonstrations, and interactive digital campaigns designed to enhance consumer engagement. However, despite growing interest in immersive marketing technologies, empirical research examining consumer perceptions of Metaverse marketing remains limited, particularly in emerging markets.

1.1. Research Gap and Contribution

Although interest in Metaverse technologies has grown rapidly, empirical studies examining consumer readiness for Metaverse marketing remain relatively scarce. Most existing research focuses on technological development or virtual commerce applications, while fewer studies examine how consumers perceive and evaluate immersive marketing platforms. In addition, the relationship between consumer awareness of Metaverse marketing and the acceptability of immersive marketing technologies has received limited attention in empirical research.

This study addresses these gaps by examining the awareness and acceptability of Metaverse marketing among Generations Y and Z in the Philippines and investigating the relationship between these constructs using the Technology Acceptance Model framework. By focusing on an emerging market context, the study provides insights into how digitally connected consumers perceive immersive marketing technologies and how awareness may influence readiness to adopt Metaverse marketing platforms.

1.2. Research Objectives

This study aims to:

1. Determine the level of awareness of Metaverse marketing among Generations Y and Z.
2. Examine the acceptability of Metaverse marketing among these generational groups.
3. Identify whether significant differences exist between Generations Y and Z in terms of awareness and acceptability.
4. Examine the relationship between awareness and acceptability of Metaverse marketing.

2. LITERATURE REVIEW

2.1. Awareness of the Metaverse

In the Asia-Pacific region, the Philippines ranks among the leading countries in metaverse engagement, reflecting a strong interest in digital assets such as NFTs and virtual collectibles. This growing engagement suggests significant opportunities for brands operating within immersive digital ecosystems.

Generation Y (Millennials) has been widely described as a cohort shaped by rapid technological advancement, positioning them as active participants in digital environments. In the context of the metaverse, Millennials demonstrate strong motivations driven by factors such as fear of missing out (FOMO), self-extension, and status-seeking, which contribute to their engagement and positive attitudes toward virtual platforms (Arghashi and Gunalay, 2025). Their familiarity with digital platforms, combined with relatively higher purchasing power, contributes to their awareness of the metaverse as an extension of existing digital infrastructures. In this regard, Millennials demonstrate a more favorable perception of broader metaverse applications, particularly in work and social contexts, as they tend to be less skeptical compared to Generation Z (Korn et al., 2024).

Awareness among Millennials is further influenced by socio-demographic and economic factors. Gender differences, for instance, shape patterns of engagement, with women more inclined toward social and entertainment applications of immersive technologies, while men are more engaged in technical and investment-oriented uses (Ameen et al., 2022). Similarly, broader contextual variables such as income, marital status, and geographic location significantly affect digital consumption behaviors (Akhator et al., 2018). The integration of Industry 4.0 technologies, including artificial intelligence and data analytics also enhances awareness by enabling personalized and interactive marketing experiences (Kaur et al., 2022; Dwivedi et al., 2022).

In contrast, Generation Z has been raised in a fully digital environment characterized by constant exposure to mobile technologies, gaming ecosystems, and emerging digital innovations (Chardonnens, 2025). Their familiarity with immersive platforms has been further reinforced by the widespread adoption of online and blended learning during the COVID-19 pandemic (Tutgun and Tarhan, 2022; Tejedor et al., 2020; Cheung and Ng, 2021). As a result, Generation Z demonstrates high awareness of virtual environments, often associating the metaverse with interactive platforms such as Roblox, Minecraft, and Fortnite, which function as spaces for social interaction, entertainment, and content consumption (Lamba and Malik, 2022).

Extant literature also characterizes Generation Z as digitally proficient and highly engaged with immersive and interactive technologies, with a strong inclination toward entertainment-driven digital experiences (Priporas et al., 2017; Huang and Liao, 2015; Venkatesh et al., 2012). However, despite this orientation, empirical evidence indicates that Generation Z exhibits greater skepticism toward the use of the metaverse beyond entertainment,

particularly in domains such as work and social interaction (Korn et al., 2024).

Overall, while both generations demonstrate high levels of awareness of the metaverse, their engagement remains largely concentrated in entertainment, gaming, and digital asset participation. Differences lie not in familiarity but in the breadth of perceived applications.

H_1: No significant difference exists between Generation Y and Generation Z participants in the level of awareness of metaverse marketing as a whole and in terms of the marketing mix (product, price, place, and promotion).

2.2. Acceptability of the Metaverse

Despite their technological fluency, Millennials demonstrate a cautious approach toward the metaverse, largely due to concerns related to privacy, data security, and trust (Oleksy et al., 2023). While they recognize the potential benefits of immersive environments, their acceptance is moderated by perceived risks and uncertainties. Nevertheless, their adaptability and openness to innovation, coupled with advancements in enabling technologies such as 5G and extended reality, support their potential adoption (Khan et al., 2022; Gazzola et al., 2020; Toraman, 2022; Zhang et al., 2022).

Generation Z, on the other hand, demonstrates strong engagement with immersive technologies and virtual environments, with adoption often influenced by perceived enjoyment, interactivity, and social validation (Arghashi and Gunalay, 2025). This aligns with the concept of hedonic motivation, which plays a significant role in technology acceptance, particularly in immersive and experiential platforms (Venkatesh et al., 2012). However, similar to Millennials, their acceptance is not without constraints. Risks such as identity theft, lack of regulation, and concerns over digital transactions continue to hinder full adoption (Dwivedi et al., 2023).

Although Generation Z is often perceived as more willing to adopt emerging technologies (Lee et al., 2023), empirical findings suggest that their acceptance is context-dependent. Specifically, while they readily embrace the metaverse for gaming and entertainment purposes, they remain more skeptical about its application in work and social interaction settings (Korn et al., 2024). This indicates that familiarity does not necessarily translate into universal acceptance across all functional domains. Immersive technologies reshape consumer experiences by enabling multi-sensory and interactive engagement across different stages of the customer journey, thereby influencing perceptions, intentions, and behaviors (Flavián et al., 2019; Flavián et al., 2024), which subsequently shape users' evaluations of usefulness and ease of use. In particular, vivid and realistic virtual environments have been found to significantly enhance both utilitarian and hedonic perceptions, thereby strengthening users' engagement and intention to adopt immersive platforms (Kim et al., 2021).

Across both generations, the technology acceptance model (TAM) remains a relevant framework in explaining adoption behavior. Perceived usefulness and perceived ease of use consistently emerge as key determinants of acceptability, influencing both attitudes and behavioral intentions toward metaverse platforms (Chua and Yu, 2023; Zhang et al., 2022). This is further supported by empirical evidence showing that immersive virtual environments enhance perceived usefulness and perceived enjoyment, which in turn shape consumers' attitudes and behavioral intentions toward the technology (Kim et al., 2021).

Overall, while both Millennials and Generation Z exhibit positive orientations toward immersive technologies, their acceptance of the metaverse is shaped by a combination of perceived benefits, risks, and contextual relevance. The level of acceptability of Metaverse for both cohorts is apparently similar; thus, it is hypothesized that:

H_2: No significant difference exists between Generation Y and Generation Z participants in the level of acceptability of metaverse marketing as a whole and in terms of perceived ease of use, perceived usefulness, and likelihood to use.

2.3. Relationship between Awareness and Acceptability of Metaverse Marketing

Existing literature suggests that awareness alone does not automatically lead to acceptance or sustained usage of emerging technologies. While both Millennials and Generation Z demonstrate familiarity with digital environments, their pathways toward adoption differ in terms of perceived value, trust, and functional relevance.

Recent studies highlight the critical role of awareness as an antecedent to technology acceptance. Awareness enhances users' understanding of digital platforms, which in turn influences perceived usefulness and ease of use, two central constructs of the Technology Acceptance Model (Davis, 1989; Venkatesh et al., 2012). For instance, Iankovets et al. (2025) emphasize that familiarity with digital technologies increases perceived value and usability, thereby facilitating acceptance. Similarly, Wang et al. (2025) found that awareness of artificial intelligence significantly influences users' attitudes and adoption behavior.

Recent studies highlight that perceived usefulness, trust, immersive experience, and technological familiarity significantly influence consumers' willingness to adopt Metaverse platforms (Sritong et al., 2024; Tang et al., 2025). Similarly, immersive virtual environments have been shown to enhance users' cognitive and behavioral engagement, thereby strengthening technology acceptance and behavioral intention (Kim et al., 2021; Dwivedi et al., 2023). Complementing this, Sritong (2024) found that perceived usefulness, enjoyment, and trust directly influence consumer adoption of metaverse shopping platforms, while awareness indirectly enhances acceptability through increased familiarity and ease of use. Likewise, Tran (2025) confirmed that perceived usefulness, ease of use, and trust remain critical determinants of technology acceptance in digital environments.

Taken together, these findings suggest that awareness functions as a foundational driver of acceptability, influencing both cognitive evaluations and behavioral intentions toward metaverse platforms. Therefore, it is hypothesized that:

H_3: A significant relationship exists between participants' awareness and acceptability of metaverse marketing.

2.4. Theoretical Framework

This study is anchored on the integration of the technology acceptance model (TAM) and the marketing mix (4Ps) framework to explain consumer awareness and acceptability of Metaverse marketing. The technology acceptance model (Davis, 1989) posits that perceived ease of use and perceived usefulness are the primary determinants of users' acceptance of new technologies. In the context of immersive digital environments such as the Metaverse, these constructs influence how consumers evaluate and engage with technology-driven marketing platforms. Perceived ease of use reduces cognitive effort and enhances accessibility, while perceived usefulness reflects the extent to which consumers believe that interacting with Metaverse platforms improves their shopping or experiential outcomes. This perspective is further supported by research on immersive technologies, which highlights that customer experience is shaped by integrated cognitive, emotional, sensory, and behavioral responses across digital and physical touchpoints (Flavián et al., 2024).

Complementing TAM, the marketing mix framework provides a strategic lens to understand how organizations design and deliver value through product, price, place, and promotion. In digital and immersive environments, these elements are transformed into interactive and experience-driven components, where product becomes virtual or augmented, place refers to digital platforms and ecosystems, promotion involves immersive and personalized communication, and price reflects perceived value in both monetary and experiential terms. Prior studies suggest that these elements influence consumer awareness and engagement differently, particularly in technology-driven contexts (Dwivedi et al., 2022; Lu and Mintz, 2023).

The integration of TAM and the 4Ps framework enables a more comprehensive understanding of Metaverse marketing by linking technological acceptance with strategic marketing elements. Specifically, consumer awareness of the marketing mix may shape perceptions of ease of use and usefulness, which in turn influence acceptability and likelihood of use. This combined perspective suggests that adoption of Metaverse marketing is not solely driven by technological factors, but also by how effectively marketing mix elements are communicated and experienced within digital environments.

Thus, this study proposes that awareness (4Ps) and acceptability (TAM constructs) are interconnected, where awareness of marketing elements enhances consumer readiness to adopt immersive technologies, while perceived ease of use and usefulness determine the extent to which such technologies are accepted and utilized.

2.5. Conceptual Framework

Guided by the technology acceptance model (TAM), this study posits that awareness of metaverse marketing serves as a key antecedent to acceptability (Figure 1). Individuals who possess higher levels of awareness are more likely to develop favorable perceptions of usefulness and ease of use, which in turn enhance their likelihood of adopting immersive marketing platforms (Davis, 1989; Venkatesh et al., 2012).

3. METHODOLOGY

3.1. Research Design

This study employed a quantitative, descriptive-correlational research design to examine the awareness and acceptability of Metaverse marketing among Generations Y and Z. A total of 386 participants were drawn from Bacolod City, Talisay City, and Silay City, representing Generation Y (ages 27-35) and Generation Z (ages 18-26), with 193 respondents from each cohort. The sample size was determined using Cochran's formula to ensure statistical adequacy.

3.2. Participants of the Study

Participants were selected using purposive stratified quota sampling to achieve balanced representation across generational cohorts and locations. This approach ensured that only qualified respondents from the target age groups were included while maintaining proportional allocation and minimizing sampling bias. Stratified sampling enhanced subgroup relevance, while quota sampling facilitated efficient and targeted recruitment (Campbell et al., 2020).

3.3. Instrument

The research instrument underwent rigorous validation and reliability testing prior to data collection. Content validity was established through expert evaluation using the Good and Scates criteria, yielding an average rating of 4.0, indicating high validity. A pilot test with 30 respondents was conducted to assess internal consistency, resulting in a Cronbach's alpha coefficient of 0.90, which reflects excellent reliability.

The survey instrument comprised three sections: (1) Demographic and screening questions, (2) awareness measures based on the marketing mix (product, price, place, and promotion), and (3) acceptability measures, including perceived ease of use, perceived usefulness, and likelihood to use.

3.4. Data Analysis

Data were analyzed using Microsoft Excel and Jamovi software. Descriptive statistics were employed to summarize respondents' levels of awareness and acceptability. For inferential analysis, independent samples t-tests were used to examine differences between Generations Y and Z, while Pearson's product–moment correlation analysis was conducted to assess the relationship between awareness and acceptability. All statistical tests were performed at a 0.05 level of significance.

3.5. Ethical Considerations

Ethical standards were strictly observed throughout the study. Participants were informed of the study's purpose, procedures, and their rights, and informed consent was obtained prior to data collection. Participation was voluntary, with the option to withdraw at any time without penalty. Anonymity and confidentiality were ensured by not collecting personally identifiable information and

by reporting data in aggregate form. All responses were used solely for academic purposes, securely stored, and disposed of in accordance with institutional guidelines. The study adhered to core ethical principles, including respect for persons, beneficence, and data privacy, ensuring that no harm was incurred by participants and that the research aligned with institutional and social science ethical standards.

4. RESULTS

4.1. Awareness of Generation Y and Z in terms of 4Ps

Table 1 presents the awareness levels of Generations Y and Z across the marketing mix. Results show that Generation Z reported higher awareness of product (M = 3.16, SD = 0.602), place (M = 3.19, SD = 0.631), and promotion (M = 3.32, SD = 0.648), while Generation Y exhibited greater awareness of price (M = 3.03, SD = 0.616). Overall, both cohorts demonstrated substantial awareness of Metaverse marketing, though with generational nuances. This pattern is consistent with generational differences in digital engagement and information exposure. Prior research indicates that Generation Z consumers are highly involved in digital environments and social media platforms, which enhance their exposure to product-related content, promotions, and brand interactions (Goldring and Azab, 2020). This observation is further supported by prior research indicating that consumer responses and awareness vary across the elements of the marketing mix, particularly in digital and immersive environments where product experience, platform accessibility, and promotional engagement are emphasized (Dwivedi et al., 2022; Lu and Mintz, 2023). Empirical studies further suggest that different components of the 4Ps exert varying levels of influence on consumer perception and decision-making, with product and price often emerging as dominant factors, while place and promotion serve as critical enablers of engagement (Fernandes et al., 2024; Yadav et al., 2024). These findings support the presence of differentiated awareness patterns across marketing mix elements, even among highly digitalized consumer groups.

The higher awareness of Generation Z in product and promotion-related elements may be explained by their strong exposure to immersive and interactive digital environments. Rafiq and Mahmud (2024) highlight that Generation Z actively engages in virtual platforms such as gaming, social interaction, and digital shopping, which enhances their familiarity with how brands present and promote offerings in immersive spaces.

Consistent with Kaur et al. (2022), the findings suggest that both generations' awareness can facilitate the integration of Metaverse platforms into broader marketing strategies. This is further supported by Munir et al. (2025), who emphasize that implementing digital marketing-oriented strategies directly enhances key performance metrics, including return on investment (ROI) and customer acquisition, highlighting the strategic value of digitally engaged consumer segments. While Generation Z appears more inclined toward entertainment and social uses, and Generation Y toward financial aspects, both groups' awareness positions them as key markets for future Metaverse-based commerce and brand engagement.

Table 1: Level of awareness among participants in terms of the marketing mix

Variable	Category	Mean	SD	Interpretation
Generation Y	Product	3.02	0.646	Aware
	Price	3.03	0.616	Aware
	Place	3.08	0.537	Aware
	Promotion	3.11	0.579	Aware
	4Ps	3.05	0.552	Aware
Generation Z	Product	3.16	0.602	Aware
	Price	2.94	0.695	Aware
	Place	3.19	0.631	Aware
	Promotion	3.32	0.648	Aware
	4Ps	3.13	0.573	Aware
Grand mean		3.09	0.548	Aware

Interpretation: 1.00-1.49 (very not aware), 1.50-2.49 (not aware), 2.50-3.49 (aware), 3.50-4.00 (very aware)

4.2. Acceptability of Generation Y and Z in Terms of Perceived Ease of Use, Perceived Usefulness, and Likelihood to Use

Table 2 presents the acceptability levels of Generations Y and Z in terms of perceived ease of use, perceived usefulness, and likelihood to use. Generation Z reported slightly higher mean scores in perceived ease of use (M = 2.99, SD = 0.641) and perceived usefulness (M = 2.95, SD = 0.634), while Generation Y exhibited a marginally higher likelihood to use (M = 2.87, SD = 0.681) compared to Generation Z (M = 2.86, SD = 0.705). Despite these minor variations, both cohorts demonstrated comparable levels of acceptability, indicating that Metaverse marketing is generally perceived as viable for e-commerce applications.

From a technology acceptance model (TAM) perspective, these findings suggest that both perceived ease of use and perceived usefulness positively shape users' behavioral intentions across generational cohorts. The observed similarity aligns with prior research indicating that digital consumers, regardless of age group, have increasingly adapted to online and immersive environments, albeit with differing engagement styles (Goldring and Azab, 2020). The results further support Khan et al. (2022), who highlight the growing demand for emerging technologies such as the Metaverse, driven by advancements in digital infrastructure, particularly 5G connectivity.

Moreover, the findings are consistent with Adhini and Prasad

Table 2: Level of acceptability among participants

Variable	Category	Mean	SD	Interpretation
Generation Y	Perceived ease of use	2.89	0.636	Easy to use
	Perceived usefulness	2.84	0.682	Useful
	Likelihood to use	2.87	0.681	Likely
Generation Z	Perceived ease of use	2.99	0.641	Easy to use
	Perceived usefulness	2.95	0.634	Useful
	Likelihood to use	2.86	0.705	Likely

Interpretation: Perceived ease of use-1.00-1.49 (very difficult to use), 1.50-2.49 (Not easy to use), 2.50-3.49 (easy to use), 3.50-4.00 (very difficult to use). Perceived usefulness - 1.00-1.49 (very useless), 1.50-2.49 (not useful), 2.50-3.49 (useful), 3.50-4.00 (very useful). Likelihood to use - 1.00-1.49 (very not likely), 1.50-2.49 (not likely), 2.50-3.49 (likely), 3.50-4.00 (very likely)

(2024), who emphasize that a combination of technological, experiential, and social factors—including perceived usefulness, enjoyment, innovativeness, trust, and facilitating conditions—significantly influence consumer attitudes and behavioral intentions toward Metaverse adoption. While both cohorts exhibit strong acceptance, generational differences emerge in underlying motivations. Generation Z demonstrates a stronger inclination toward intrinsic drivers, such as curiosity and personal innovativeness, reflecting a deeper engagement with immersive technologies. In contrast, Millennials' adoption tends to be shaped more by extrinsic and social influences. As noted by Arghashi and Gunalay (2025), both cohorts actively participate in Metaverse platforms; however, Millennials are more influenced by social motivations, such as fear of missing out (FOMO) and status-seeking, whereas Generation Z is more intrinsically motivated.

Overall, these findings reinforce the notion that while acceptance levels of Metaverse marketing are broadly similar across Generations Y and Z, the cognitive and motivational mechanisms underpinning adoption differ, offering important implications for targeted digital marketing strategies.

Perceived ease of use emerged as the strongest driver of acceptability, suggesting convenience as a key factor. This compares earlier findings by Bale et al. (2022) and Oleksy et al. (2023), who found their study participants hesitant due to issues such as privacy and security concerns. Perceived usefulness ranked second, echoing Tao et al. (2022), who observed increased reliance on virtual platforms during the pandemic, especially among Millennials. Although the likelihood of use was the lowest indicator, it still reflected a willingness to engage with Metaverse platforms.

While general acceptability was evident, lower ratings were noted for advanced technical aspects requiring VR/AR equipment, likely due to limited familiarity rather than direct experience. Overall, results indicate that both generations view the Metaverse as useful and convenient, albeit with reservations about its more technical applications.

4.3. Generational Difference in the Awareness of Metaverse Marketing

Table 3 presents the results of the independent samples t-test examining generational differences in awareness across the four elements of the marketing mix—product, price, place, and promotion—within the context of Metaverse marketing. The findings indicate statistically significant differences in product ($t = 2.225$, $P = 0.025$) and promotion ($t = 3.354$, $P = 0.001$), suggesting that generational cohort plays a critical role in shaping awareness of experiential and engagement-driven marketing elements. In contrast, no significant differences were observed in price ($t = 1.305$, $P = 0.193$) and place ($t = 1.719$, $P = 0.086$), indicating a convergence in the understanding of functional and transactional aspects of the Metaverse across cohorts.

Table 3: Significant difference in the awareness of the participants

Awareness Dimension	Mean	SD	Df	t	P	Interpretation
Product						
Generation Y	3.02	0.646	384	2.255	0.025	Significant
Generation Z	3.16	0.602				
Price						
Generation Y	3.03	0.616	384	1.305	0.193	Not significant
Generation Z	2.94	0.695				
Place						
Generation Y	3.08	0.537	384	1.719	0.086	Not significant
Generation Z	3.19	0.647				
Promotion						
Generation Y	3.11	0.579	384	3.354	0.001	Significant
Generation Z	3.32	0.647				

From a technology acceptance model (TAM) perspective, the observed differences can be interpreted as variations in how external stimuli such as digital content, platform interactivity, and immersive experiences influence cognitive evaluations of marketing elements. Generation Z's higher awareness of product and promotion reflects their stronger exposure to interactive and media-rich environments, where marketing is embedded within entertainment, gaming, and social interaction. This supports prior evidence that Generation Z actively engages with digital ecosystems characterized by high levels of interactivity and content co-creation, thereby enhancing their familiarity with product attributes and promotional mechanisms (Goldring and Azab, 2020; Rafiq and Mahmud, 2024). From a consumer culture perspective, this cohort's consumption patterns are shaped by symbolic and experiential value, which elevates the salience of product representation and promotional engagement in virtual environments.

In contrast, Generation Y's relatively stronger awareness of price-related aspects highlights a more utilitarian and value-driven orientation. As argued by Ameen et al. (2022), Millennials have developed greater sensitivity to the commercial and transactional dimensions of digital platforms, particularly in response to increased reliance on online commerce during the pandemic. This suggests that while Generation Z is more attuned to hedonic and experiential cues, Generation Y evaluates Metaverse marketing through a more economic and outcome-oriented lens.

The absence of significant differences in price and place further suggests that both cohorts share a common baseline understanding of the structural and functional dimensions of Metaverse platforms. This convergence may be attributed to the standardization of e-commerce interfaces and pricing mechanisms, which have become widely accessible and familiar across user groups (Gazzola et al., 2020). In this sense, place, conceptualized as platform accessibility and distribution channels, and price are no longer key differentiators of awareness but rather foundational elements that support participation in the digital marketplace.

Overall, these findings extend existing literature by demonstrating that generational differences in Metaverse marketing are not uniform across all elements of the marketing mix but are instead concentrated in areas that involve higher levels of interaction, immersion, and symbolic consumption. For practitioners, this implies that effective Metaverse marketing strategies should adopt a dual approach: Emphasizing immersive product experiences and

interactive promotions to engage Generation Z, while reinforcing transparent pricing structures and value propositions to appeal to Generation Y. Such segmentation-driven strategies are essential for maximizing engagement and aligning marketing efforts with the distinct cognitive and behavioral orientations of each cohort.

Table 4 presents the results of the independent samples t-test conducted to determine whether a significant difference exists in the level of awareness of Metaverse marketing between Generation Y and Generation Z participants. The findings indicate no statistically significant difference in overall awareness between the two cohorts ($t = 1.442$, $P = 0.150$). Given that the P-value exceeds the 0.05 level of significance, the null hypothesis (H_1) stating that there is no significant difference between Generation Y and Generation Z in terms of overall awareness and across the dimensions of product, price, place, and promotion is therefore not rejected.

These results suggest that both cohorts possess a comparable level of overall awareness of Metaverse marketing. This convergence may be attributed to their shared exposure to digital technologies, social media platforms, and evolving online ecosystems, which have collectively shaped their familiarity with emerging marketing innovations. However, while overall awareness does not significantly differ, variations were observed in specific dimensions, particularly product and promotion, indicating that generational differences may still emerge at a more granular level of engagement and interpretation.

In general, both cohorts demonstrate an understanding of Metaverse marketing across the core elements of the marketing mix, including the nature of virtual products, pricing mechanisms within digital environments, distribution channels in immersive platforms, and promotional strategies used to engage consumers. These findings align with prior research suggesting that Generations Y and Z exhibit similar levels of digital literacy and adaptability, enabling them to effectively navigate and comprehend technologically driven marketing environments (Gazzola et al., 2020). More recent studies further support this convergence, emphasizing that while behavioral expressions may differ, both cohorts are highly immersed in digital ecosystems and exhibit comparable levels of awareness and familiarity with emerging technologies such as the Metaverse (Lee et al., 2023; Calderón-Fajardo et al., 2024).

From a theoretical and managerial standpoint, the results imply that awareness of Metaverse marketing is no longer a differentiating factor between these generational groups. Instead, differences may lie in how each cohort interacts with and responds to specific marketing elements. Consequently, organizations may benefit from shifting their focus from broad awareness-building strategies toward more targeted approaches that enhance engagement and experiential value within specific components of the marketing mix.

4.4. Generational Difference in the Acceptability of Metaverse Marketing

Through an independent samples t-test, the study examined whether significant differences exist in the acceptability of Metaverse marketing between Generation Y and Generation Z, as presented in Table 5. The results revealed no statistically significant differences across the three dimensions of acceptability: perceived ease of use ($t = 1.520$, $P = 0.129$), perceived usefulness ($t = 1.662$, $P = 0.097$), and likelihood to use ($t = 0.239$, $P = 0.812$). These findings indicate that both generational cohorts share comparable perceptions regarding the usability, utility, and prospective adoption of Metaverse marketing platforms.

This absence of significant variation suggests a convergence in technology acceptance behaviors between both cohorts, despite differences in their digital upbringing. The findings are consistent with prior research demonstrating that both Millennials and Generation Z exhibit similar levels of readiness and openness toward immersive digital environments such as the Metaverse,

Table 4: Overall mean of the level of awareness of metaverse marketing

Variable	Category	Mean	SD	df	t	P	Interpretation
Total awareness	Generation Y	3.05	0.522	384	1.442	0.150	Not significant
	Generation Z	3.13	0.572				

Table 5: Significant difference in the acceptability of the participants

Acceptability Dimension	Mean	SD	Df	t	P	Interpretation
Perceived ease of use						
Generation Y	2.89	0.636	384	1.520	0.129	Not significant
Generation Z	2.99	0.641				
Perceived usefulness						
Generation Y	2.84	0.682	384	1.662	0.097	Not significant
Generation Z	2.95	0.634				
Likelihood to use						
Generation Y	2.87	0.681	384	0.239	0.812	Not significant
Generation Z	2.86	0.705				

Table 6: Overall mean of the level of acceptability of metaverse marketing

Variable	Category	Mean	SD	df	t	P	Interpretation
Total acceptability	Generation Y	2.87	0.612	384	1.445	0.149	Not significant
	Generation Z	2.96	0.594				

with adoption driven more by perceived value and experiential benefits than by generational identity alone (Lee et al., 2023; Arghashi and Gunalay, 2025). Similarly, Adhini and Prasad (2024) found that perceived usefulness and perceived ease of use remain dominant predictors of Metaverse adoption across generational cohorts, reinforcing the Technology Acceptance Model's applicability in emerging virtual contexts. Supporting this, Goldring and Azab (2020) observed that while generational cohorts may differ in interaction styles and preferences, their overall levels of digital engagement and acceptance tend to converge in online consumption environments.

Furthermore, the results align with the descriptive findings in Table 2, where both cohorts reported comparable levels of acceptability. Although the mean scores for acceptability are slightly lower than those for awareness (Table 3), they remain within the "acceptable" range, indicating a generally positive evaluation of Metaverse marketing. This pattern suggests that while awareness may precede deeper behavioral adoption, both generations already recognize the functional utility and experiential value offered by Metaverse platforms. Prior studies have similarly emphasized that awareness alone does not guarantee adoption; rather, sustained engagement is influenced by perceived benefits, usability, and the immersive quality of the experience (Arghashi and Gunalay, 2025).

From a strategic standpoint, these findings highlight that Metaverse marketing possesses broad cross-generational appeal among younger consumers. Both Generation Y and Generation Z perceive it as convenient, useful, and worthy of future engagement, underscoring its viability as an integrated marketing channel. Consequently, marketers may place less emphasis on generational segmentation and instead prioritize enhancing user experience, interactivity, and value co-creation to drive adoption across both cohorts. This aligns with emerging literature suggesting that successful Metaverse strategies should focus on experiential engagement and personalization rather than demographic differentiation (Lee et al., 2023; Adhini and Prasad, 2024).

An independent samples t-test was conducted to determine whether significant differences exist in the level of acceptability of Metaverse marketing between Generation Y and Generation Z participants. The analysis revealed no statistically significant difference in overall acceptability between the two cohorts ($t = 1.445$, $P = 0.149$). Similarly, no significant differences were observed across the three dimensions of acceptability; perceived ease of use, perceived usefulness, and likelihood to use. This indicates that both groups share comparable evaluations of Metaverse marketing in terms of usability, functional value, and future adoption potential. Given that all computed P-values exceeded the 0.05 level of significance, the null hypothesis (H_2) is not rejected.

These findings suggest a convergence in acceptance behavior between the two generations, despite differences in their generational contexts and technological exposure. Both cohorts demonstrate a consistent level of receptiveness toward immersive digital environments, implying that the determinants of acceptance operate similarly across these groups. This result reinforces the explanatory power of the Technology Acceptance Model, particularly in emerging contexts such as the Metaverse, where perceived ease of use and perceived usefulness remain central drivers of user acceptance regardless of demographic variation.

The results are further supported by recent empirical studies indicating that generational differences in technology adoption tend to diminish when platforms provide clear utility, intuitive interfaces, and engaging experiences. For instance, Lee et al. (2023) and Adhini and Prasad (2024) found that both Millennials and Generation Z exhibit comparable levels of acceptance toward Metaverse platforms, with adoption primarily influenced by perceived value and experiential quality rather than age-based distinctions. This convergence is also consistent with broader digital consumption patterns, where both cohorts are highly immersed in online ecosystems and demonstrate similar readiness to engage with innovative marketing channels.

Notably, while acceptability levels are generally positive, they remain slightly lower than the levels of awareness reported in earlier analyses. This suggests that although both generations are familiar with Metaverse marketing, their transition from awareness to full adoption may still be evolving. Such a pattern aligns with prior research emphasizing that awareness alone does not automatically translate into behavioral intention; instead, continued engagement depends on the platform's ability to deliver meaningful, user-centered experiences and tangible benefits.

From a strategic standpoint, these findings highlight that Metaverse marketing possesses strong cross-generational appeal among younger consumers. As both Generation Y and Generation Z exhibit similar levels of acceptance, organizations may adopt a more unified marketing approach rather than heavily segmenting strategies based on generational differences. Greater emphasis should instead be placed on enhancing usability, delivering value-driven content, and fostering immersive and interactive experiences that can strengthen user engagement and accelerate adoption across both cohorts.

Table 7 presents the results of the correlation analysis examining the relationship between participants' awareness of Metaverse marketing and their overall acceptability of this emerging technology. The findings reveal a strong and statistically significant positive relationship ($r = 0.746$, $P < 0.05$), indicating that higher levels of awareness are associated with greater acceptability among both Generation Y and Generation Z participants. This suggests that familiarity with Metaverse marketing concepts, platforms, and applications plays a critical role in shaping favorable perceptions and increasing the likelihood of adoption.

To further validate the relationship between awareness and acceptability, a simple linear regression perspective supports

Table 7: Relationship between the participants' awareness and acceptability of metaverse marketing

Category	r	P	Interpretation
Awareness Acceptability	0.746	<0.001	Significantly high positive correlation at 0.05 alpha level of significance.

Figure 1: Illustration of the conceptual framework of the study

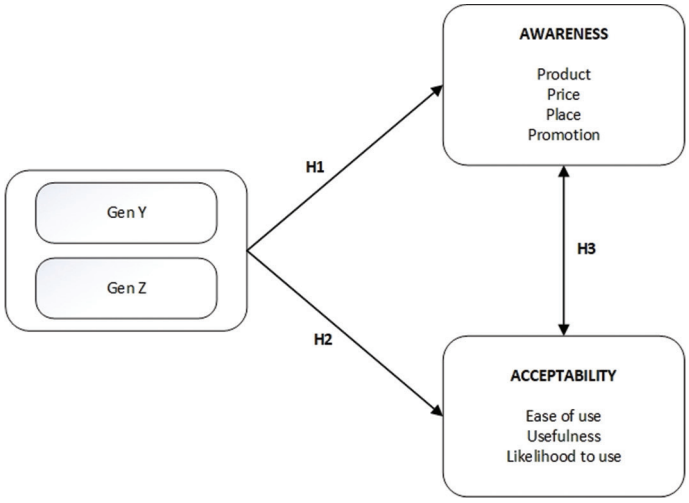
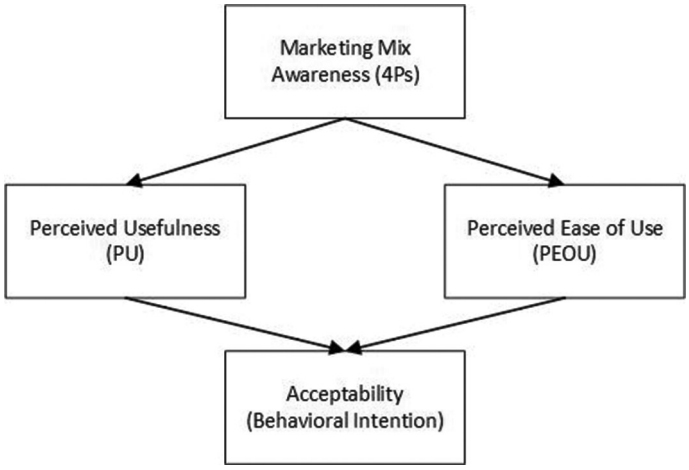


Figure 2: Extended TAM for metaverse marketing



the correlation results, indicating that awareness significantly predicts acceptability, reinforcing its role as a structural driver of technology acceptance within immersive digital environments.

The strength of the correlation (r = 0.746) indicates a substantial association, implying that awareness is not merely a preliminary stage but a key driver of acceptance in the context of emerging digital environments. Consequently, the findings indicate that the alternative hypothesis (H_3), which posits a significant relationship between awareness and acceptability—is supported.

These findings are consistent with prior research emphasizing the role of knowledge, exposure, and digital engagement in influencing consumer acceptance of new technologies. For instance, Goldring and Azab (2020) highlight that individuals who are more engaged with digital platforms and marketplace information tend to demonstrate higher levels of confidence, influence, and participation in digital consumption behaviors. In a similar vein, recent studies on Metaverse adoption indicate that users' perceptions and familiarity with virtual environments significantly shape their willingness to engage with and adopt such technologies (Toraman, 2022; Zhang et al., 2022).

From a theoretical perspective, the results further reinforce the relevance of the Technology Acceptance Model, particularly in highlighting the role of external variables, such as awareness and prior knowledge in shaping perceived usefulness and behavioral intention. In this context, awareness serves as a foundational factor that enhances users' cognitive evaluation of the technology, thereby facilitating acceptance.

From a managerial standpoint, the findings underscore the importance of awareness-building initiatives in accelerating the adoption of Metaverse marketing. Organizations should invest in educational campaigns, experiential marketing, and interactive digital strategies that enhance consumers' understanding and familiarity with Metaverse platforms. By strengthening awareness, firms can effectively improve consumer acceptance and engagement, ultimately maximizing the strategic potential of Metaverse marketing across both cohorts.

5. DISCUSSION

This study advances existing literature by empirically demonstrating that awareness—operationalized through the marketing mix—functions not merely as a precursor but as a structural driver of technology acceptance in immersive environments. Unlike prior studies that treat awareness as a peripheral variable, this research establishes its central role within the technology acceptance model, particularly in emerging market contexts.

The findings of this study provide empirical support for the growing role of immersive digital environments as viable platforms for contemporary marketing practice. The high levels of awareness and moderate-to-high acceptability observed among both Generations Y and Z indicate increasing consumer receptiveness to Metaverse-based marketing in emerging markets. This supports the argument of Dwivedi et al. (2023) that the Metaverse represents a transformative extension of digital marketing, enabling deeper engagement through interactive and experiential environments.

A key contribution of the study is the strong positive relationship between awareness and acceptability ($r = 0.746$, $P < 0.05$), demonstrating that familiarity significantly enhances consumer readiness to adopt immersive platforms. This finding aligns with the technology acceptance model, originally proposed by Fred Davis, where perceived usefulness and perceived ease of use drive adoption (Davis, 1989). Supporting studies (Toraman and Gecit, 2023; Zhang et al., 2022; Li et al., 2024) further suggest that awareness strengthens trust, perceived value, and user experience, thereby facilitating acceptance.

This finding is consistent with prior research demonstrating that immersive virtual environments enhance consumer perceptions of usefulness and enjoyment, which subsequently influence attitudes and behavioral intentions through experiential mechanisms such as telepresence (Flavián et al., 2019; Kim et al., 2021).

While no significant differences were found between Generations Y and Z in overall awareness and acceptability, variations emerged

in specific marketing mix dimensions. Generation Z demonstrated higher awareness in product and promotion aspects, reflecting their stronger engagement with interactive digital environments, whereas Generation Y showed relatively greater awareness of pricing, possibly due to more utilitarian consumption behavior. These findings indicate that although generational differences are not statistically significant overall, nuanced distinctions exist in how each cohort engages with specific marketing elements.

The absence of significant generational differences challenges the assumption that age-based cohorts are primary determinants of technology adoption. Instead, the results suggest that digital exposure and technological familiarity play a more critical role in shaping consumer perceptions. This reinforces prior research highlighting the importance of digital engagement in influencing marketing outcomes, regardless of demographic distinctions.

Furthermore, perceived ease of use and perceived usefulness remain central to acceptability, consistent with established technology adoption theories. However, despite positive perceptions, adoption may still be constrained by concerns such as privacy risks and reduced real-world interaction, which help explain why likelihood of use tends to lag behind awareness and perceived benefits (Oleksy et al., 2023).

From a managerial perspective, the findings emphasize that enhancing awareness and delivering value-driven, immersive experiences are critical to accelerating adoption. Organizations should prioritize interactive, personalized, and data-driven strategies—such as virtual experiences and gamified environments—over purely demographic segmentation.

Overall, this study demonstrates that awareness is a key structural driver of acceptability in Metaverse marketing and that adoption is influenced more by technological familiarity and perceived value than by generational differences, reinforcing the importance of engagement-focused strategies in evolving digital ecosystems.

6. CONCLUSION AND IMPLICATIONS

The findings highlight that in immersive digital environments, awareness is not merely a preliminary cognitive state but a strategic lever that organizations can actively manage to influence consumer adoption behavior.

6.1. Theoretical Contributions

This study contributes to the literature on digital marketing and immersive technologies in several key ways. First, it extends the Technology Acceptance Model to the context of Metaverse marketing by identifying consumer awareness as a critical antecedent of acceptability. While prior research emphasizes perceived usefulness and perceived ease of use as primary drivers of adoption, the findings demonstrate that awareness—operationalized through the marketing mix (4Ps)—plays a foundational role in shaping these perceptions, thereby enriching TAM in immersive environments.

Second, the study integrates marketing theory with technology adoption frameworks by linking awareness dimensions (product, price, place, and promotion) with acceptability constructs (perceived usefulness, ease of use, and likelihood of use). This provides a more comprehensive lens for understanding consumer behavior in digital ecosystems, where marketing stimuli and technological perceptions interact simultaneously.

Third, the findings challenge generational determinism in technology adoption. The absence of significant differences between Generations Y and Z suggests that digital exposure and ecosystem immersion are more influential than age-based segmentation. This advances current discourse by highlighting the convergence of consumer behavior in highly connected environments.

Finally, by focusing on an emerging market context, the study addresses a gap in Metaverse marketing research, which remains largely centered on developed economies. The evidence from the Philippines enhances the external validity and global relevance of existing literature on immersive technology adoption.

6.2. Theoretical Integration and Conceptual Framework

Building on the empirical findings, this study proposes an extended conceptualization of the Technology Acceptance Model (Figure 2) by positioning awareness—operationalized through the marketing mix—as an antecedent structural construct influencing technology acceptance in immersive environments. Specifically, awareness derived from product, price, place, and promotion dimensions enhances users' cognitive evaluation of immersive platforms, thereby strengthening perceived usefulness and perceived ease of use. These perceptions subsequently drive overall acceptability, including behavioral intention to adopt Metaverse-based marketing platforms.

This extended framework contributes to theory by integrating marketing constructs into technology adoption models, addressing a gap in prior research where awareness has been treated as a secondary or descriptive variable. In contrast, the present study empirically supports its role as a foundational driver of user perceptions and acceptance in emerging digital ecosystems. The model further suggests that in immersive environments, experiential and informational exposure through marketing activities plays a critical role in shaping user cognition prior to attitudinal and behavioral responses.

6.3. Practical Contributions

The findings of this study offer several important implications for marketing practitioners, organizations, and policymakers aiming to leverage Metaverse technologies. First, the strong positive relationship between awareness and acceptability highlights the need for organizations to prioritize awareness-building initiatives. Firms should move beyond emphasizing technological sophistication and instead focus on educating consumers about the value, functionality, and applications of Metaverse platforms through interactive campaigns, virtual demonstrations, and experiential marketing strategies.

Second, the significance of perceived ease of use and perceived usefulness reinforces the relevance of the technology acceptance model in guiding platform design. Organizations should prioritize intuitive interfaces, seamless onboarding processes, and user-centered design to reduce complexity and enhance engagement, thereby facilitating adoption.

Third, the absence of significant generational differences suggests that traditional demographic segmentation may be less effective in immersive digital contexts. Instead, firms are encouraged to adopt behavior-based and psychographic segmentation strategies that focus on digital familiarity, technological readiness, and engagement patterns, enabling more precise targeting and communication.

Fourth, while overall perceptions are similar, nuanced differences across marketing mix elements provide actionable insights. Experiential and promotion-driven strategies may resonate more strongly with Generation Z, whereas value-oriented and pricing strategies may be more effective for Generation Y. These distinctions allow firms to optimize specific aspects of their Metaverse marketing strategies without relying on broad generational segmentation.

Finally, for policymakers in emerging markets, the findings underscore the importance of strengthening digital infrastructure, promoting digital literacy, and establishing clear regulatory frameworks addressing privacy and security. Such initiatives are essential to fostering consumer trust and creating an enabling environment for the sustainable growth of Metaverse-based marketing and commerce.

6.4. Limitations and Future Research

Future studies may employ structural equation modeling (SEM) to examine mediating mechanisms and test the extended Technology Acceptance Model framework proposed in this study, thereby providing deeper insights into causal relationships among constructs.

This study is subject to several limitations that should be considered when interpreting the findings. First, the sample was drawn from selected cities in the Philippines using a non-probability sampling approach, which may limit the generalizability of the results to other populations and geographic contexts. Second, the study employed a cross-sectional research design, which restricts the ability to establish causal relationships between awareness and acceptability of Metaverse marketing. Third, the use of self-reported survey data may introduce common method bias and social desirability bias, potentially influencing respondents' reported perceptions and intentions.

Future research may address these limitations by employing probability sampling techniques and expanding the study to different regions or countries to enable cross-cultural comparisons and enhance external validity. Longitudinal or experimental research designs may also be utilized to examine causal relationships and changes in consumer perceptions over time. Additionally, future studies could incorporate advanced analytical techniques, such as structural equation modeling, to explore mediating and moderating variables—such as trust, perceived risk, and technological readiness—in shaping consumer adoption of Metaverse marketing. Exploring other demographic groups and industry contexts may further enrich the understanding of how immersive marketing strategies influence consumer behavior across diverse settings.

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