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The Influence of Virtual Brand Experience on Generation Z's Purchase Intention in Roblox: Examining the Mediating Role of Brand Engagement and the Moderating Role of Self-Congruity

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Abstract

The increasing popularity of the Roblox platform among Generation Z users reflects a growing digital consumption phenomenon, where virtual interactions influence real purchasing behaviors, particularly in the acquisition of Robux. This study aims to analyze the influence of virtual brand experience on the intention to purchase Robux among Generation Z Roblox users in Indonesia, mediated by brand engagement and moderated by self-congruity. This study applied a quantitative survey approach by distributing online questionnaires to 153 active Roblox users in Indonesia. Data were analyzed using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method. The results showed that virtual brand experience has a positive effect on purchase intention. Brand engagement mediates the relationship between virtual brand experience and purchase intention. Self-congruity moderates the relationship between virtual brand experience and purchase intention. Theoretically, this study extends the literature on virtual consumption by integrating virtual brand experience, brand engagement, and self-congruity in the context of metaverse. Practically, these findings provide insights for digital marketers and platform developers in designing immersive virtual brand experiences that increase user engagement and stimulate purchase intentions among Generation Z.

Keywords: Brand Engagement; Online Games; Purchase Intention; Self-Congruity; Virtual Brand Experience.

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INTRODUCTION

Modern marketing is currently undergoing a fundamental shift from conventional approaches to digital-based strategies that emphasize experience and interaction. One of the developments in the era of digital marketing is the emergence of marketing activities in the metaverse, an immersive environment that combines virtual reality, augmented reality, and mixed reality with blockchain (Lin, 2024). This transformation is also shaping consumer behavior patterns, particularly among Generation Z as digital natives who are accustomed to interactive and symbolic experiences, and show a tendency to consume digital goods even if they do not have a physical form (M. Kim et al., 2025).

Over the past few years, global companies such as Meta, Microsoft, Nvidia, and even Roblox have been operating in the metaverse and utilizing it as a strategic marketing channel (Lim et al., 2025). Roblox has become one of the fastest-growing virtual world platforms (Chawki, 2025). In the second quarter of 2025, Roblox Corporation reported more than 111.8 million daily active users worldwide (Statista, 2025), with 52.1 million belonging to Generation Z (Singh, 2025). The company generated revenues of USD 1.08 billion during the same period, largely driven by the purchase of Robux, with average daily spending per active user reaching USD 12.86 (Singh, 2025). This data shows that Roblox functions not only as a means of entertainment, but also as a digital social and economic space where users build identities, interact with communities, and make purchasing decisions.

In this context, the intention to purchase digital goods such as Robux is not solely driven by functional considerations, but is related to the virtual brand experience that users feel while interacting in an immersive environment. The virtual brand experience allows consumers to engage cognitively, affectively, and sensorially, thereby shaping their perceptions and behavioral responses to the brand (Lee & Cho, 2022). This experience has the potential to encourage higher brand engagement, which is reflected through active participation, emotional attachment, and psychological connections between consumers and brands (Araujo et al., 2020; Brodie et al., 2011; L. Hollebeek et al., 2014; Sohaib et al., 2023). Previous research shows that higher levels of brand engagement are associated with consumers' tendency to have stronger purchase intentions (Payal et al., 2024; Rather et al., 2022).

In Indonesia, attitudes, subjective norms, and perceived behavioral control have been shown to influence purchase intentions in the context of freemium apps and games (Putra et al., 2021). However, this influence can vary depending on the level of self-congruity between consumers and brand image (Sirgy, 1985). When users feel a greater alignment between their self-image and the brand's virtual identity, the positive impact of the virtual brand experience on purchase intention becomes stronger (Balakrishnan et al., 2024; Chieng et al., 2022; Shukla et al., 2021). This condition becomes increasingly relevant in community-based environments such as Roblox, where social interaction, digital identity expression, and virtual symbolism are integral parts of the user experience (Chuang, 2020). Therefore, self-congruity has the potential to strengthen the relationship between virtual brand experience and purchase intention, because experiences that are in line with the user's self-identity are more easily translated into purchase intention in a virtual environment.

Nevertheless, existing research has predominantly examined these mechanisms in traditional e-commerce or digital media contexts, as illustrated by (Kung et al., 2021) who found that digital experience shapes perceived value and consumer trust, thereby fostering purchase intention. However, the dynamics of consumer behavior in immersive, interactive, and community-based metaverse platforms exhibit different characteristics and require a separate analytical approach. Therefore, this study aims to answer the main question of how virtual brand experiences influence Robux purchase intention among Generation Z Roblox users in Indonesia, as well as the role of brand engagement as a mediating variable and self-congruity as a moderating variable in this relationship. This study contributes to expanding the understanding of consumer behavior in online game-based virtual environments, while also offering strategic implications for marketers in

designing virtual brand experiences that can increase user engagement and drive digital product purchase decisions.

Literature Review

The Relationship Between Virtual Brand Experience and Purchase Intention

According to (Lee & Cho, 2022), virtual brand experience refers to consumer interactions with brands in immersive, interactive, and multisensory digital environments, encompassing five dimensions—sensory, affective, intellectual, behavioral, and social—that shape perceptions and attitudes. Positive experiences evoke emotions and strengthen cognitive associations, thereby increasing purchase intention (Brakus et al., 2009). Research shows that credible and identity-consistent virtual experiences can influence real-world attitudes and purchase intentions (Gabisch & Gwebu, 2011), while metaverse shopping experiences enhance consumer motivation to buy (H. Zhang et al., 2025). The quality of virtual experiences and perceived product value also drive purchase intention (Cadet et al., 2024). In online gaming, factors such as escapism, role projection, fantasy, enjoyment, emotional involvement, and excitement foster positive attitudes toward virtual items, leading to loyalty, willingness to pay, and word-of-mouth promotion (Hussain, Hollebeek, et al., 2025; Ma & He, 2025). Based on this, the hypothesis is proposed:

H1: Virtual brand experience has a positive effect on purchase intention.

The Relationship Between Virtual Brand Experience and Brand Engagement

Brand engagement reflects the level of psychological and emotional connection that individuals feel toward a brand, where individuals consider the brand to be part of their self-concept (Sprott et al., 2009). Immersive and interactive virtual brand experiences can stimulate user engagement because they feel like they are part of the brand's digital environment. This is supported by (Sohaib et al., 2023) research, which states that the higher the virtual brand experience felt by users, the stronger the brand engagement that is formed. (Payal et al., 2024) also explain how metaverse interactivity, such as two-way active control and synchronization, can have a positive effect on trust, knowledge, and brand attachment, which increases brand engagement and the intention to purchase products in the real world. In addition, (Li & Aumeboonsuke, 2025) also reveal that the virtual brand experience felt by users through gamification features can increase brand engagement, which results in increased consumer loyalty. Based on this description, the following hypothesis can be formulated:

H2: Virtual brand experience has a positive effect on brand engagement.

The Relationship Between Brand Engagement and Purchase Intention

High brand engagement reflects a strong emotional and cognitive connection between consumers and the brand, which ultimately influences purchasing behavior (L. D. Hollebeek et al., 2019). Consumers who are actively engaged with a brand are more likely to show interest and intention to purchase the products offered. This statement is supported by (Verma, 2021) research, which reveals that brand engagement has a positive effect on brand love, which in turn has a positive effect on purchase intention. Moreover, (Subarkah et al., 2023) stated that in online games, player behavior factors can trigger brand engagement that significantly influences the intention to purchase items in the game. In the context of the virtual world, brand engagement enhanced through positive experiences with augmented reality features, such as interactivity and novelty, positively correlates with consumers' greater desire to make purchases (Niveditha & Stepheno, 2024). Based on the above description, the following hypothesis can be formulated:

H3: Brand engagement has a positive effect on purchase intention.

The Relationship between Virtual Brand Experience and Purchase Intention Mediated by Brand Engagement

Brand engagement serves as a psychological mechanism that connects virtual brand experiences with consumer behavioral responses, including purchase intention. (Lee &

Cho, 2022) highlight the role of brand engagement as a mediator in the relationship between virtual brand experience and purchase intention in the context of the metaverse, where the results are positive and significant. Moreover, research by (Zhuo et al., 2022) also shows that brand engagement can mediate the influence of brand experience on consumer behavior such as purchase intention. Furthermore, brand engagement can also act as a mediator between virtual stimuli and purchase intention, as shown in research conducted by (Park & Kim, 2024), where influencer appeal can increase consumer purchase intention. Based on this description, the following hypothesis can be formulated:

H4: Brand engagement mediates the relationship between virtual brand experience and purchase intention.

The Relationship between Brand Engagement and Purchase Intention Moderated By Self-Congruity

Self-congruity refers to the alignment between consumers' self-image and the symbolic characteristics of a brand (Sirgy, 1985), and when individuals perceive that a brand reflects who they are or aspire to be, their emotional connection strengthens (Malär et al., 2011). In virtual environments, users often express identity through avatars or participation in digital worlds, making self-congruity a key factor that amplifies the psychological impact of brand engagement on purchasing behavior (Balakrishnan et al., 2024). Research confirms that self-congruity enhances the relationship between brand experience and brand commitment, particularly among consumers with strong self-expression needs (Chieng et al., 2022), and meta-analytical evidence supports its role as a valid moderator between brand engagement and purchase intention (Aguirre-Rodriguez et al., 2012). Thus, in this study, self-congruity is expected to strengthen the effect of brand engagement on purchase intention, leading to the hypothesis:

H5: Self-congruity moderates the relationship between brand engagement and purchase intention.

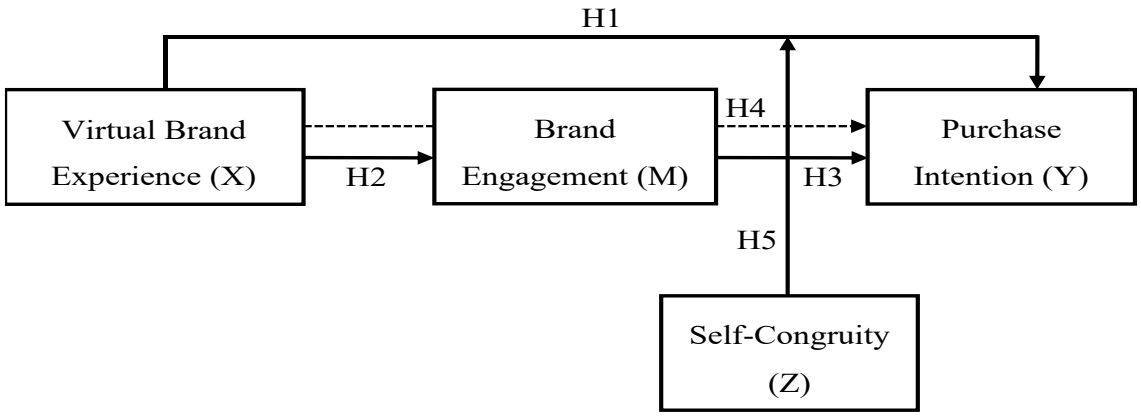


Figure 1. Research Model

METHOD

This study uses a quantitative approach with a survey method to test the relationship between variables in a structural model using the Partial Least Squares-Structural Equation Modeling (PLS-SEM) technique. The research sample consisted of 153 active Roblox users from Generation Z in Indonesia, selected using purposive sampling. The research was conducted over a period of two months. Data analysis was performed using a two-stage approach, where the first stage was used to assess the validity and reliability of the indicators in each dimension, while the second stage tested the relationship between dimensions and their second-order constructs (Hair et al., 2017).

Measurement

All constructs in this study were measured using a five-point Likert scale questionnaire, with a rating range from strongly disagree (1) to strongly agree (5). The measurement of virtual brand experience refers to the five dimensions developed by (Lee & Cho, 2022), while brand engagement is adapted from (Razmus, 2021) framework, which includes cognitive, emotional, and behavioral dimensions. The measurement of self-congruity refers to the self-concept approach introduced by (Sirgy, 1985) with research instruments adapted from (saleki et al., 2014) and (J. H. Kim & Hyun, 2013). Meanwhile, the purchase intention research instrument was adapted from (Sakti et al., 2020).

RESULT AND DISCUSSION

Result

Based on the respondent profile, of the total 153 respondents who participated in the survey, the majority were aged 16-25 years (84.31%). Most respondents were female (72.5%), with the most dominant status being students (62.7%). In terms of monthly income, the Rp1.000.000 - Rp2.000.000 category was the most dominant (27.5%). In terms of usage behavior, 33.9% of respondents had been using the platform for 6-12 months, and the majority spent 3-7 hours per week playing (41.2%). The complete profile of respondents is presented in Table 1.

Table 1. Respondents Profile

No	Variable	Category	Frequency	Percentage
1	Age	<16 years old	12	7.84%
		16 – 25 years old	129	84.31%
		>25 years old	12	7.84%
2	Gender	Women	111	72.5%
		Men	42	27.5%
3	Status	Students	96	62.7%
		Employees	57	37.3%
4	Income	< Rp 1,000,000	40	26.1%
		Rp 1,000,000 – Rp 2,000,000	42	27.5%
		Rp 2,000,000 – Rp 3,000,000	40	26.1%
		> Rp 3,000,000	31	20.3%
5	Length of Roblox usage	<6 months	47	30.1%
		6-12 months	52	33.9%
		1-2 years	35	22.9%
		>2 years	20	13.1%
6	Average playing time per week	< 3 hours	36	23.5%
		3-7 hours	63	41.2%
		8-14 hours	44	28.8%
		> 14 hours	10	6.5%

Based on the results of testing the outer model on all first-order constructs, it was found that the outer loading, Cronbach's Alpha, Composite Reliability, and AVE values generally met the criteria recommended by (Hair et al., 2021). Most indicators have outer loadings above 0.70, while several indicators with loadings between 0.50 and 0.70 are retained because the CR and AVE values for each construct remain above the minimum required limits (Hair et al., 2021). Cronbach's Alpha and CR values for all constructs also show good reliability, while the AVE for all constructs is above 0.50, indicating that convergent validity is fulfilled. Thus, all constructs in this model are declared reliable and valid. In detail, the results of the first-order construct measurement model evaluation can be seen in Table 2.

Table 2. Validity dan Reliability Construct (First Order)

Construct	Outer Loading	Cronbach's Alpha	Composite Reliability (rho_c)	Average Variance Extracted (AVE)	Status
Sensory Experience	0.912	0.928	0.948	0.788	Valid
Affective Experience	0.753	0.514	0.801	0.669	Valid
Intellectual Experience	0.521	0.799	0.869	0.582	Valid
Behavioral Experience	0.509	0.758	0.867	0.692	Valid
Social Experience	0.912	0.928	0.948	0.788	Valid
Cognitive Engagement	0.688	0.807	0.875	0.640	Valid
Emotional Engagement	0.543	0.857	0.904	0.663	Valid
Behavioral Engagement	0.517	0.780	0.850	0.532	Valid
Actual Self-Congruity	0.793	0.847	0.897	0.686	Valid
Ideal Self-Congruity	0.787	0.816	0.879	0.644	Valid
Social Self-Congruity	0.825	0.787	0.876	0.701	Valid
Ideal Social Self-Congruity	0.811	0.794	0.879	0.709	Valid
Purchase Intention	0.657	0.744	0.840	0.569	Valid

Based on the evaluation of the second-order construct outer model using the Two-Stage Approach, all constructs showed Composite Reliability (CR) values above 0.70 and AVE values above 0.50, thus meeting the criteria for reliability and convergent validity according to (Hair et al., 2021). Because the second-order construct was formed using latent variable scores, outer loading and Cronbach's Alpha testing were not necessary. Thus, all second-order constructs are deemed feasible to proceed to the model fit and inner model testing stages. In detail, the results of the second-order construct testing can be seen in Table 3.

Table 3. Validity dan Reliability Construct (Second Order)

Construct	Composite Reliability (rho_c)	Average Variance Extracted (AVE)	Status
Self Congruity (Z)	0.937	0.788	Valid
Brand Engagement (M)	0.885	0.719	Valid
Virtual Brand Experience (X)	0.852	0.536	Valid

Next, we conducted model fit testing to adjust the overall model so that the actual model fit value listed was above the recommended threshold value. Based on the results of the model fit test, the SRMR value in the saturated model of 0.065 met the criteria of ≤ 0.08 according to (Hair et al., 2021), so the model was declared to have a good level of suitability. The NFI value of 0.824 is still in the acceptable fit category in PLS-SEM, while the d_ULS and d_G values are within a reasonable range, indicating no problems with model fit. Thus, overall, the model can be declared to meet the eligibility criteria to proceed to inner model testing. In more detail, the results of the model fit testing can be seen in Table 4.

Table 4. Model Fit

	Saturated Model	Model Estimation	Status
SRMR	0.065	0.109	Fit
d_ULS	0.383	1.072	Fit
d_G	0.230	0.296	Fit
Chi-square	208.664	246.436	Fit
NFI	0.824	0.792	Fit

After evaluating the measurement model, the next step is to evaluate the structural model (inner model) of the dimensional construct with latent variables using the Bootstrapping method in SmartPLS 4. The following presents the structural model of the study.

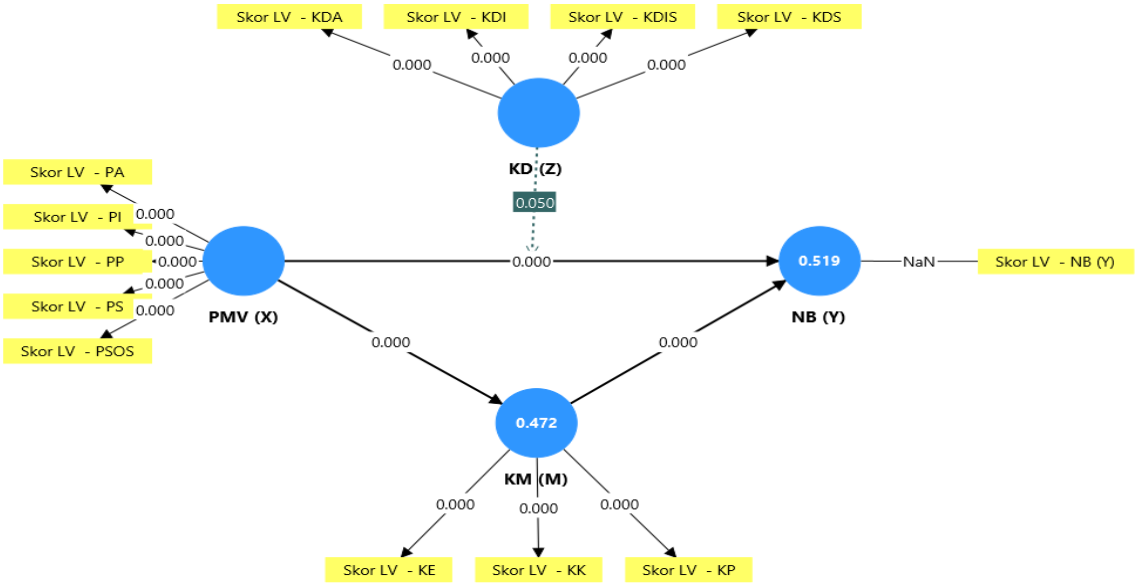


Figure 2. Inner Model

Note:
PMV = Virtual Brand Experience;
KM = Brand Engagement;
NB = Purchase Intention;
KD = Self-Congruity.

Based on the results of the SEM analysis, all relationships between variables in this study showed positive and significant path coefficient values. Virtual brand experience directly influences purchase intention (β = 0.366, p = 0.000) and strongly predicts brand engagement (β = 0.687, p = 0.000), which also significantly enhances purchase intention (β = 0.454, p = 0.000). The indirect effect of virtual brand experience on purchase intention via brand engagement (β = 0.312, p = 0.000) validates the mediating role of engagement. Moreover, self-congruity exhibits a marginal yet statistically acceptable impact on virtual brand experience (β = 0.123, p = 0.050), indicating a modest contribution of identity alignment. These results highlight the strategic importance of immersive brand experiences and emotional engagement in driving consumer purchase intentions. More detailed results of the path coefficients and hypothesis testing can be seen in Table 5.

Table 5. Results of SEM Analysis

Hypothesis	Original Sample	T- Statistic	P-Values	Status
H1: Virtual Brand Experience (X) -> Purchase Intention (Y)	0.366	3.508	0.000	Accepted
H2: Virtual Brand Experience (X) -> Brand Engagement (M)	0.687	14.580	0.000	Accepted
H3: Brand Engagement (M) -> Purchase Intention (Y)	0.454	4.130	0.000	Accepted
H4: Virtual Brand Experience (X) -> Brand Engagement (M) -> Purchase Intention (Y)	0.312	3.714	0.000	Accepted
H5: Self-Congruity (Z) x Virtual Brand Experience (X) -> Purchase Intention (Y)	0.123	1.964	0.050	Accepted

Discussion

The results show that virtual brand experience positively influences purchase intention for Robux in Roblox. Interactive features such as avatars, events, and gamification create emotional engagement and a sense of presence. These experiences also increase perceived value, which encourages players to convert their engagement into purchasing behavior. This mechanism aligns with (Lee & Cho, 2022), who found that interactivity and immersion strengthen purchase intention. It is also supported by (Cadet et al., 2024) and (Dwivedi et al., 2022), who emphasized the importance of virtual experience quality and product value in shaping consumer decisions. Evidence from online gaming further confirms this, as (Hussain, Mirza, et al., 2025) and (Ma & He, 2025) showed that escapism, role projection, fantasy, enjoyment, and emotional involvement foster positive attitudes toward virtual items. These attitudes then drive loyalty, willingness to pay, and word-of-mouth promotion. Thus, this study contributes by highlighting that brand experiences on Roblox effectively stimulate purchase intention among Generation Z.

Building on the finding that virtual brand experience enhances purchase intention, the results further reveal that it also strengthens brand engagement. Immersive and interactive features encourage emotional involvement, sustain cognitive attention, and stimulate behavioral participation, which together foster deeper connections with the brand. This mechanism is consistent with (Razmus, 2021), who argued that intense consumer experiences enhance engagement across cognitive, emotional, and behavioral dimensions. (Afif & Susanto, 2025) similarly emphasized that immersive marketing in the metaverse creates unique brand experiences that build stronger consumer ties. Supporting this view, (Pentina et al., 2013) found that highly interactive digital environments trigger engagement by generating personal involvement and enjoyment. Accordingly, this study highlights that Generation Z demonstrates greater brand engagement when interacting with brands through immersive virtual experiences on platforms such as Roblox.

In addition, the results show that brand engagement positively affects purchase intention. Stronger engagement fosters emotional commitment, reinforces cognitive evaluations, and creates psychological closeness, which together motivate consumers to act on their purchasing desires. This mechanism is consistent with (Khan et al., 2019), who found that engagement elevates emotional commitment and purchase intention. (Verma, 2021) further explained that emotional attachment and positive cognitive evaluations activate engagement, representing consumers' readiness to participate and make purchases. (W. Zhang et al., 2023) also demonstrated that engagement on online platforms strengthens psychological closeness and significantly drives purchase intention. Accordingly, this study confirms that higher engagement among Roblox users with the brand leads to a stronger desire to purchase the items or products offered.

The results show that brand engagement mediates the relationship between virtual brand experience and purchase intention. Engagement transforms positive experiences into consumer actions, which explains the stronger purchase intention. This mechanism

is supported by (L. D. Hollebeek et al., 2019; Samsudin et al., 2024; Wijardi et al., 2022), who all confirmed that engagement acts as a mediator in digital and metaverse contexts. Accordingly, this study reinforces that in Roblox, interactive brand experiences increase engagement, which in turn strengthens purchase intention.

Self-congruity was found to strengthen the effect of virtual brand experience on purchase intention. This result aligns with (Sirgy, 1985) self-congruity theory, which states that the closer the match between brand image and consumer self-image, the stronger the positive response to the brand. (Malär et al., 2011) provided empirical evidence that self-image congruity enhances emotional closeness to the brand and encourages purchase intention. In digital contexts, (Beach et al., 2024) showed that avatars and virtual identities amplify the role of self-congruity in shaping consumer behavior. Accordingly, this study indicates that on the Roblox platform, when virtual brands are perceived as congruent with users' self-identities, their experiences become more meaningful and lead to stronger purchase intention.

Limitations

This study has several limitations that should be acknowledged. First, this study used a questionnaire with a relatively large number of statements, namely 62 items, which had the potential to affect the consistency of respondents' attention during the completion process, especially at the end. Second, the data collection process was carried out in a relatively short period of time, namely two weeks, so that the distribution of questionnaires could not optimally reach all Generation Z Roblox users in Indonesia.

CONCLUSION

This study examined the effect of virtual brand experience on purchase intention among Generation Z users on Roblox, with brand engagement as a mediating variable and self-congruity as a moderating variable. The findings confirm that virtual brand experience has a positive effect on both brand engagement and purchase intention, indicating that immersive and interactive brand experience play a central role in shaping purchasing intentions in virtual environments. Furthermore, brand engagement was found to mediate the relationship between virtual brand experience and purchase intention, demonstrating that positive virtual experiences translate into stronger purchase intentions when users develop emotional and cognitive connections with the brand. In addition, self-congruity strengthens the influence of virtual brand experience on purchase intention, suggesting that alignment between users' digital identities and brand identity enhances the effectiveness of virtual brand experience.

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