

## THE EFFECT OF GAME ADDICTION AND PERCEIVED VALUE ON APP PURCHASE INTENTION OF ROBLOX GAME PLAYERS IN INDONESIA

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### Abstract

The freemium model has positioned in-app purchases as a primary monetization mechanism in digital games, including Roblox as a user-generated gaming platform. This study examines the effects of game addiction and perceived value on in-app purchase intention among Roblox players in Indonesia. Using a quantitative explanatory approach, data were collected through a cross-sectional survey of Roblox players in Indonesia and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that both game addiction and perceived value have positive and significant effects on in-app purchase intention. However, perceived value exerts a stronger influence than game addiction, indicating that players' purchasing decisions are more strongly driven by evaluations of enjoyment, social recognition, functional performance, and price fairness rather than addictive engagement alone. These findings contribute to the understanding of digital consumer behavior in user-generated gaming environments and provide insights for value-oriented monetization strategies.

**Keywords:** In-app purchase intention; Game addiction; Perceived value; Online gaming; Roblox.

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### Abstrak

*Model freemium telah menjadikan in-app purchase sebagai mekanisme monetisasi utama dalam game digital, termasuk Roblox sebagai platform permainan berbasis konten buatan pengguna. Penelitian ini bertujuan untuk menganalisis pengaruh game addiction dan perceived value terhadap in-app purchase intention pada pemain Roblox di Indonesia. Penelitian ini menggunakan pendekatan kuantitatif eksplanatori dengan desain survei potong lintang. Data*

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*dikumpulkan melalui kuesioner kepada pemain Roblox di Indonesia dan dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa game addiction dan perceived value berpengaruh positif dan signifikan terhadap in-app purchase intention. Namun, perceived value memiliki pengaruh yang lebih kuat dibandingkan game addiction, yang menunjukkan bahwa keputusan pembelian pemain lebih banyak didorong oleh penilaian terhadap kesenangan, pengakuan sosial, kinerja fungsional, dan kewajaran harga dibandingkan keterlibatan bermain yang bersifat adiktif semata. Temuan ini memperkaya pemahaman mengenai perilaku konsumen digital dalam lingkungan permainan berbasis konten buatan pengguna serta memberikan implikasi bagi strategi monetisasi yang berorientasi pada penciptaan nilai.*

**Kata kunci:** *In-app purchase intention; Game addiction; Perceived value; Online gaming; Roblox.*

## INTRODUCTION

Digitalization has driven the online game industry to become one of the fastest-growing entertainment sectors worldwide. The widespread adoption of the freemium business model—where games are offered for free but monetized through in-app purchases—has transformed players from mere users into customers who are continuously exposed to various purchase stimuli. Hamari et al. (2020) emphasize that freemium has become the dominant business model for digital games and online services, as it allows developers to generate recurring revenue through microtransactions rather than one-time sales. In line with this, recent studies highlight that in-app purchases are now a primary metric for evaluating a game's commercial success because they directly reflect players' willingness to spend on virtual items and premium features rather than just their usage intensity Lee et al. (2025); Suryawan et al. (2024).

Within this global context, Indonesia has emerged as one of the most dynamic online gaming markets in Asia, supported by rapidly growing mobile internet penetration and a predominantly young population. Empirical evidence shows that online mobile gaming in Indonesia is expanding quickly and significantly drives purchase intentions toward premium features such as virtual items and exclusive in-game access Lee et al. (2025). Roblox, as a user-generated online gaming platform and metaverse ecosystem, has become increasingly popular among Indonesian children, teenagers, and young adults. On this platform, players can purchase Robux—its virtual currency—to obtain avatar accessories, game passes, cosmetic items, and other virtual goods integrated into millions of user-generated experiences. In such an environment, understanding what drives Indonesian Roblox players' in-app purchase intention is crucial, not only from a business standpoint but also from a behavioral and psychological perspective.

In the context of digital business, in-app purchase intention refers to a user's willingness and deliberate plan to acquire virtual goods—such as skins, characters, or virtual currency—within an application or game. Hsiao & Chen (2016) show that in the mobile gaming context, in-app purchase intention is a key indicator of game success, influenced by gameplay experience, perceived value, and psychological responses to game design. Recent studies in Indonesia further support this view:

Putratama & Retnowardhani (2025) find that pricing, live streamers, and game loyalty significantly shape Gen-Z gamers' in-app purchase intentions, while other research on freemium games reveals that hedonic motivations, habits, and perceived price value are important determinants of in-game purchasing behavior Melyanto et al. (2025). These findings imply that purchase intention in digital games like Roblox is not merely a function of technical quality, but is strongly linked to how players feel and think about the value and experience offered.

Perceived value is a key construct frequently used to explain purchasing decisions in marketing and digital consumption. Zeithaml et al. (1988) defines perceived value as the consumer's overall assessment of a product's utility based on perceptions of what is received and what is given. In online gaming, perceived value can manifest as economic value (the fairness of the price for virtual items), social value (recognition and status from peers via avatars, skins, or ranks), and hedonic value (enjoyment, immersion, and escapism while playing). Recent empirical studies in gaming contexts confirm that perceived value significantly influences players' purchase intentions for virtual items. For instance, Tene et al. (2024) show that perceived value, together with customer engagement and social influence, has a strong effect on the purchase intention of virtual items in Mobile Legends among Generation Z players, while Suryawan et al. (2024) demonstrate that game satisfaction and emotional value are important drivers of purchase intentions for DOTA 2 virtual items. These results suggest that when players perceive high functional, emotional, and social benefits from virtual items, they are more likely to spend money in-game—an insight highly relevant to the Roblox environment, where self-expression and social interaction are central.

At the same time, game addiction has emerged as a critical behavioral issue associated with excessive gaming. The World Health Organization has included gaming disorder in the ICD-11 as a behavioral addiction characterized by impaired control over gaming, prioritizing gaming over other activities, and continuation despite negative consequences. Building on addiction theory, Lemmens et al. (2009) developed the Game Addiction Scale (GAS), which measures dimensions such as salience, tolerance, mood modification, withdrawal, relapse, conflict, and problems; this instrument has been validated in the Indonesian context and shown to have good psychometric properties among local gamers Ulkhaq et al. (2018). Recent studies in the Indonesian mobile gaming market reveal that online game addiction significantly affects loyalty and in-app purchase intention for premium features Airlangga & Alfansi, (2025); Lee et al. (2025), suggesting that higher addiction levels can increase the likelihood of making repeated in-app purchases as a way to enhance gameplay, status, or emotional regulation.

A growing body of literature has begun to link perceived value and game addiction to in-app purchase-related outcomes. Research on Indonesian gamers shows that perceived value—particularly emotional and social value—plays a decisive role in determining whether players buy virtual items, while addiction-like engagement can amplify this tendency by increasing playtime, involvement, and exposure to monetization cues Lee et al. (2025); Suryawan et al. (2024); Tene et

al. (2024). However, most existing studies focus on specific titles such as Mobile Legends, DOTA 2, or generic mobile games, and do not explicitly examine Roblox as a unique platform characterized by user-generated content, metaverse-style social interaction, and a strong emphasis on avatar customization. Moreover, empirical investigations that simultaneously model the influence of game addiction and perceived value on in-app purchase intention at the national level in Indonesia—specifically among Roblox players—remain scarce.

Based on the above discussion, there is a clear need for further research to understand how game addiction and perceived value jointly shape in-app purchase intention among Roblox players in Indonesia. Roblox represents a rapidly expanding digital ecosystem in which young Indonesian users invest significant amounts of time and money in virtual goods, yet systematic empirical evidence explaining the psychological and value-based mechanisms driving their spending behavior remains limited. Addressing this gap is crucial for advancing academic knowledge on digital consumer behavior, particularly within user-generated gaming environments such as Roblox. The outcomes of this research are expected to enrich scholarly discussions on gaming monetization and, at the same time, offer practical implications for developers, platform providers, and policymakers in creating more effective and responsible strategies for managing and optimizing in-app purchase systems for Indonesian players

The introduction contains the background of the problem, a brief explanation of the literature review from the existing research (state of the art), to show the limitations of previous research, what things are to be achieved and show the novelty of the article. The background must be relevant and delivered systematically, the research objectives must be written. The typeface used in the body of the article is Helvetica 12 with a space of 1.15. Quotations are written with indirect quotations (paraphrasing). Literature review of at least 10 relevant and most recent references (journals).

### **Game addiction**

Game addiction is a digital behavioral phenomenon characterized by excessive involvement, loss of control, and conflict between gaming activities and other obligations. According to Yolanda Putra et al. (2024), this condition is reflected through seven main components—salience, tolerance, mood modification, withdrawal, relapse, conflict, and problems—that develop into an addictive behavioral pattern. These findings align with Lemmens et al. (2009), who stated that game addiction is a form of behavioral addiction that shares characteristics with other non-substance addictions. Research by Airlangga & Alfansi (2025) shows that flow experience and escapism are strong triggers for addiction in Gen-Z Indonesia, while playfulness has a negative effect. This is supported by Lee et al. (2025), who state that gaming addiction (digital addiction) emerges when games are used as a means of emotional regulation and psychological release. Therefore, game addiction reflects not only the intensity of play but also a deeper psychological dimension.

In the context of digital consumption, game addiction has been shown to be closely related to in-app purchase intentions. Yolanda Putra et al. (2024) found that

addicted PUBG Mobile players were more motivated to purchase virtual items to improve their performance and maintain their competitive identity in the game. Similar findings were presented by Willyam & Kiky. A (2025), who showed that Mobile Legends players with high levels of addiction had a greater tendency to spend digitally, even when controlled for other variables such as playing frequency. Lee et al. (2025) also confirmed that game addiction has a positive and significant effect on in-app purchase intentions, as addicted players tend to make repeat purchases as part of a compulsive consumption pattern. Meanwhile, Airlangga & Alfansi (2025) showed that among Gen-Z, Addiction remains a strong predictor of in-app purchase intentions, although game loyalty is not significant. Overall, the current literature consistently concludes that game addiction has a positive effect on in-app purchase intentions.

**H1:** Game addiction has a positive effect on in-app purchase intention among online gamers in Indonesia.

### **Perceived value**

Sweeney & Soutar (2001) concluded that there are four aspects that can be used to evaluate perceived value in customers, namely:

- emotional value, the utility derived from the feelings or affective states that a product generates towards the buyer.
- Social value/enhancement of social concept, the utility derived from the product's ability to enhance social self-concept of the buyer.
- functional value for money/price, the utility derived from the product due to the reduction of its perceived short term and longer term costs by the buyer.
- functional value for quality/performance, the utility derived from the perceived quality and expected performance of the product by the buyer.

#### **a) Emotional Value**

Emotional value acknowledges the affective components of decision-making, incorporating feelings and states that consumption experiences evoke Tackie et al. (2025). Therefore emotional value is the value of profit that was generated by the emotional component of the product. Which is the positive emotions gamers experience in playing online games. Previous research conducted by Hsiao & Chen (2016) concluded that perceived playfulness is the main reason why gamers are loyal to play that specific game. This means that perceived playfulness is an important metric in emotional value for a gamer to stay loyal in game their playing, and therefore the increased possibility of in app purchase in said game.

#### **b) Social Value**

Social value is the value of profit obtained through the capacity of a product to add to the social representation of clients (Dilan et al., 2023). Past research by Sweeney & Soutar (2001) concluded that social value being one of the major points of consumer assessment to purchase said product/services. This is because social

value in a product communicates to others about the value of the customer. This is supported Lu & Hsiao (2010) description of social value, that social value derived from mobile game services in increasing one's social self concept. Previous research also found that gamer will play the game more if they can interact with other gamer in said game.

c) Functional Value For Quality/Performance

Quality/performance value refers to value derived from perceived quality and expected performance of the mobile game (Lu & Hsiao, 2010). Quality plays a significant role in the creation of value perceptions, and its impact on customer decision making process (Sweeney & Soutar, 2001). This value can be observed from gamer excitement towards the game Roblox. As Purnami & Agus (2020) found in their research that the more gamers feel the game excites them, the more they are willing to play the game continuously. In addition, the quality of the game itself also increases in app purchase intention by the game.

d) Functional Value For Money/Price

Lu & Hsiao (2010) description of price is value that is derived from mobile game because of reduction in its perceived cost. From the four aspects of perceived value coined by Sweeney & Soutar (2001) price value has a higher correlation with representing perceived value than with other items. In this research we use price value as a means to measure gamer willingness to sacrifice in order to obtain item/product/services within Roblox games. Previous research found that perceived price value also contributes to increasing gamer intention to make in-game purchases (Lu & Hsiao, 2010). Thus we propose the following hypothesis:

**H2:** Perceived value positively influence in ap purchase intention on Roblox

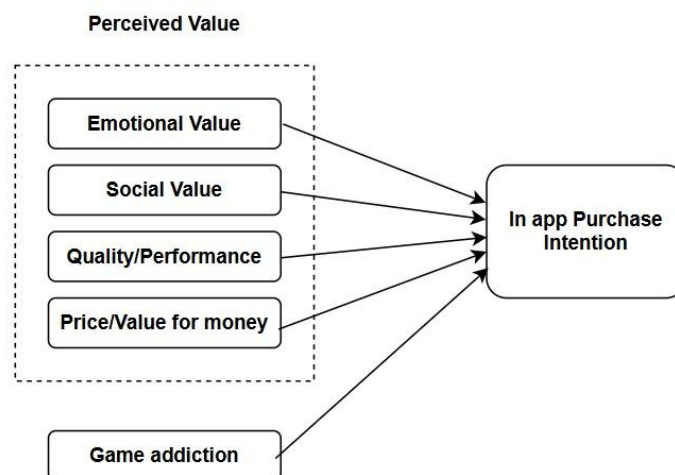


Figure 1. Conceptual framework

## METHODS

This study uses a quantitative explanatory approach to examine the influence of game addiction and perceived value on in-app purchase intentions among



Roblox players in Indonesia. The research design is cross-sectional, and all constructs are positioned as reflective latent constructs, thus analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) through SmartPLS, which is considered effective for multiple indicator-based predictive models (Hair J. F. et al., 2021).

The object of the study was the Roblox gaming platform, while the subjects were Roblox players residing in Indonesia, selected through purposive sampling. Respondent criteria included: residing in Indonesia, actively playing in the past three months, and having made or intending to make in-app purchases using Robux. The sample size was set at a minimum of 100 respondents based on the 5-10 times rule of SEM-PLS to ensure stable model estimation Hair et al. (2021). The instrument was collected through a Google Form questionnaire containing two sections: respondent profiles and research variable indicators. The game addiction indicators were adapted from the Game Addiction Scale, which includes the dimensions of salience, tolerance, withdrawal, conflict, and problems Lemmens et al. (2009). The perceived value indicator refers to four dimensions of consumer value—functional, hedonic, social, and monetary—as described by Zeithaml et al. (1988). Meanwhile, the in-app purchase intention indicator refers to behavioral intention indicators in the context of digital transactions based on the UTAUT2 model Venkatesh et al. (2012).

Data were analyzed through cleaning, descriptive analysis, and SEM-PLS testing. The outer model was tested through convergent validity (outer loading, AVE) and reliability (Composite Reliability, Cronbach's alpha), while discriminant validity was evaluated using Fornell-Larcker and HTMT. The inner model was then tested through R-square value, effect size ( $f^2$ ), predictive relevance ( $Q^2$ ), and path significance using bootstrapping. The hypothesis is stated to be supported if the path coefficient is significant ( $p$ -value  $< 0.05$ ) and leads as expected. The results of this analysis are used to explain the influence of game addiction and perceived value on in-app purchase intention among Roblox game players in Indonesia.

## RESULT AND DISCUSSION

### Sample Description

**Table 1.** Demographic characteristics of the sample

| Profile                | Category     | n  | %    |
|------------------------|--------------|----|------|
| <b>Gender</b>          | Male         | 42 | 56.8 |
|                        | Female       | 32 | 43.2 |
| <b>Age (years old)</b> | Below 16     | 5  | 6.8  |
|                        | 16–20        | 14 | 18.9 |
|                        | 21–25        | 51 | 68.9 |
|                        | Above 25     | 4  | 5.4  |
| <b>Daily playing</b>   | Below 1 hour | 13 | 17.6 |

|              |                  |    |      |
|--------------|------------------|----|------|
| <b>time</b>  |                  |    |      |
|              | 1–2 hours        | 28 | 37.8 |
|              | 3–4 hours        | 16 | 21.6 |
|              | 5–6 hours        | 8  | 10.8 |
|              | Above 6<br>hours | 9  | 12.2 |
| <b>Total</b> |                  | 74 | 100  |

**Table 1** presents the demographic characteristics of the respondents. The sample consists of 74 participants, with a higher proportion of male respondents (56.8%) compared to female respondents (43.2%). In terms of age distribution, the majority of respondents are between 21–25 years old (68.9%), followed by those aged 16–20 years (18.9%). Smaller proportions are observed among respondents below 16 years old (6.8%) and those above 25 years old (5.4%). Regarding daily playing time, most respondents reported spending one to two hours per day playing mobile games (37.8%). This is followed by respondents who play for three to four hours per day (21.6%) and those who play less than one hour per day (17.6%). A smaller share of respondents reported playing for five to six hours per day (10.8%) or more than six hours per day (12.2%). Overall, the demographic profile indicates that the sample is predominantly composed of young adult gamers with moderate daily gaming intensity.

## Measurement Model Evaluation

**Table 2.** Outer loadings

|       | Game Addiction | In App Purchase<br>Intention | Perceived Value |
|-------|----------------|------------------------------|-----------------|
| GA1   | 0,886          |                              |                 |
| GA2   | 0,903          |                              |                 |
| GA3   | 0,8            |                              |                 |
| GA4   | 0,701          |                              |                 |
| IAP11 |                | 0,887                        |                 |
| IAP12 |                | 0,771                        |                 |
| IAP13 |                | 0,864                        |                 |
| IAP14 |                | 0,865                        |                 |
| PV1   |                |                              | 0,712           |
| PV2   |                |                              | 0,807           |
| PV3   |                |                              | 0,854           |



**Table 2** presents the outer loading values of the indicators measuring the constructs of Game Addiction, In-App Purchase Intention, and Perceived Value. The results indicate that all indicators have outer loading values above the recommended threshold of 0.70, confirming satisfactory convergent validity of the measurement model. According to Hair et al. (2021), indicators with loadings greater than 0.70 demonstrate that a substantial proportion of variance in the observed variables is explained by their respective latent constructs. The Game Addiction indicators show strong loadings ranging from 0.701 to 0.903, indicating that the items reliably capture addictive gaming behavior, while the In-App Purchase Intention indicators exhibit loadings between 0.771 and 0.887, reflecting a robust measurement of users' purchasing intentions in digital games. Similarly, the Perceived Value indicators display acceptable loadings between 0.712 and 0.854, suggesting that the indicators adequately represent users' perceived benefits derived from gameplay. Overall, these findings support the reliability and validity of the measurement model and justify its use for further structural model analysis in PLS-SEM (Sarstedt et al., 2019; Hair et al., 2021).

**Table 3.** Convergent validity and Reliability test

|                           | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---------------------------|------------------|-------|-----------------------|----------------------------------|
| Game Addiction            | 0,85             | 0,934 | 0,895                 | 0,683                            |
| In App Purchase Intention | 0,869            | 0,872 | 0,911                 | 0,719                            |
| Perceived Value           | 0,722            | 0,794 | 0,835                 | 0,629                            |

**Table 3** presents the results of the convergent validity and reliability assessment for all latent constructs included in the measurement model. Convergent validity was evaluated using the Average Variance Extracted (AVE), where a value exceeding 0.50 indicates that a construct explains more than half of the variance of its indicators (Hair et al., 2019). The results show that the AVE values for Game Addiction (0.683), In-App Purchase Intention (0.719), and Perceived Value (0.629) all exceed the recommended threshold, confirming adequate convergent validity for each construct. These findings indicate that the indicators used in this study sufficiently represent their respective latent variables.

Reliability was assessed using Cronbach's alpha, rho\_A, and composite reliability. As shown in Table 3, all constructs demonstrate Cronbach's alpha and composite reliability values above the recommended minimum value of 0.70, indicating satisfactory internal consistency reliability (Hair et al., 2021). Specifically, composite reliability values range from 0.835 to 0.911, suggesting that the measurement items consistently capture the underlying constructs. According to Hair et al. (2019), the use of composite reliability is particularly appropriate in PLS-SEM because it does not assume equal indicator loadings. Overall, these results confirm that the measurement model meets the established criteria for both convergent validity and reliability and is therefore suitable for further structural model analysis.

**Table 4.** Discriminant Validity

|                           | Game Addiction | In App Purchase Intention | Perceived Value |
|---------------------------|----------------|---------------------------|-----------------|
| Game Addiction            | 0,827          |                           |                 |
| In App Purchase Intention | 0,516          | 0,848                     |                 |
| Perceived Value           | 0,35           | 0,58                      | 0,793           |

**Table 4** presents the results of the discriminant validity assessment using the Fornell–Larcker criterion. Discriminant validity is established when the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlations with other constructs in the model. As shown in Table 4, the diagonal values—representing the square root of AVE for Game Addiction (0.827), In-App Purchase Intention (0.848), and Perceived Value (0.793)—are higher than the corresponding inter-construct correlation values. This indicates that each construct shares more variance with its own indicators than with other constructs in the model.

These results confirm that the constructs are empirically distinct and that no discriminant validity issues are present. According to Hair et al. (2019), meeting the Fornell–Larcker criterion provides evidence that latent variables capture unique theoretical concepts, thereby supporting the validity of the measurement model. The findings further suggest that game addiction, perceived value, and in-app purchase intention represent conceptually different constructs, justifying their inclusion as separate variables in the structural model analysis (Hair et al., 2021).

**Table 5.** Collinearity (VIF)

VIF

|       |       |
|-------|-------|
| GA1   | 2,385 |
| GA2   | 2,382 |
| GA3   | 1,969 |
| GA4   | 1,618 |
| IAP11 | 2,67  |
| IAP12 | 1,583 |
| IAP13 | 2,491 |
| IAP14 | 2,304 |
| PV1   | 1,489 |
| PV2   | 1,655 |
| PV3   | 1,305 |

**Table 5** presents the collinearity assessment results using variance inflation factor (VIF) values for all indicators included in the measurement and structural model. The results show that all VIF values range between 1.305 and 2.670, which are well below the commonly accepted threshold of 5.0, indicating that multicollinearity is not a concern in this study. According to Hair et al. (2019), VIF values below 5 suggest that the predictors do not exhibit problematic collinearity and that each indicator contributes unique information to the model. Similarly, Kock (2015) emphasizes that VIF values below 3.3 indicate an absence of both multicollinearity and common method bias in PLS-SEM models. Therefore, the collinearity diagnostics confirm that the estimation of path coefficients in the structural model is not biased by high intercorrelations among indicators, supporting the robustness and reliability of subsequent hypothesis testing.

**Table 6.** Coefficient of Determination ( $R^2$ )

|                           | R Square | R Square Adjusted |
|---------------------------|----------|-------------------|
| In App Purchase Intention | 0,448    | 0,433             |

**Table 6** presents the coefficient of determination ( $R^2$ ) and adjusted  $R^2$  values for the endogenous construct, namely In-App Purchase Intention. The results show that the  $R^2$  value for In-App Purchase Intention is 0.448, with an adjusted  $R^2$  of 0.433, indicating that the exogenous constructs

included in the model explain approximately 44.8% of the variance in users' in-app purchase intention. According to Hair et al. (2019),  $R^2$  values of 0.25, 0.50, and 0.75 can be described as weak, moderate, and substantial, respectively; thus, the obtained  $R^2$  value can be classified as having moderate explanatory power. This finding suggests that game addiction and perceived value provide a meaningful contribution to explaining in-app purchase intention, although a portion of the variance remains influenced by other factors not included in the model. Furthermore, the closeness between  $R^2$  and adjusted  $R^2$  values indicates that the model is stable and not overly affected by sample size or model complexity, supporting its suitability for further predictive and structural analysis in PLS-SEM (Hair et al., 2021).

**Table 7.** Effect Size ( $f^2$ )

|                           | Game Addiction | In App Purchase Intention | Perceived Value |
|---------------------------|----------------|---------------------------|-----------------|
| Game Addiction            |                | 0,203                     |                 |
| In App Purchase Intention |                |                           |                 |
| Perceived Value           |                | 0,33                      |                 |

**Table 7** presents the effect size ( $f^2$ ) values of the exogenous constructs on In-App Purchase Intention. The results indicate that Game Addiction has an  $f^2$  value of 0.203, while Perceived Value shows a higher  $f^2$  value of 0.33 in explaining In-App Purchase Intention. According to Hair et al. (2019),  $f^2$  values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively. Based on this classification, the effect of Game Addiction on In-App Purchase Intention can be categorized as a medium effect, whereas Perceived Value demonstrates a medium-to-large effect. These findings suggest that although both constructs play an important role in influencing in-app purchase intention, perceived value contributes a stronger explanatory impact compared to game addiction. This highlights the relative importance of users' perceived benefits over addictive tendencies in shaping purchasing intentions within the gaming context, while still confirming the meaningful role of addiction-related behavior in the predictive model (Hair et al., 2019, 2021).

**Table 8.** Hypothesis testing

| Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values |
|---------------------|-----------------|----------------------------|--------------------------|----------|
|---------------------|-----------------|----------------------------|--------------------------|----------|

|                                                         |     |     |    |       |   |
|---------------------------------------------------------|-----|-----|----|-------|---|
| Game<br>Addiction -><br>In App<br>Purchase<br>Intention | 357 | 362 | 87 | 4.083 | 0 |
| Perceived<br>Value -> In<br>App Purchase<br>Intention   | 455 | 461 | 81 | 5.623 | 0 |

**Table 8** presents the results of hypothesis testing using structural equation modeling with the PLS-SEM approach. The significance of the structural paths was evaluated based on t-statistic values exceeding the critical threshold of 1.96 and p-values below 0.05. The results indicate that the path from Game Addiction to In-App Purchase Intention is positive and statistically significant ( $\beta = 0.357$ ,  $t = 4.083$ ,  $p < 0.05$ ), providing empirical support for H1. This finding suggests that higher levels of game addiction are associated with stronger intentions to make in-app purchases among players.

Similarly, the path from Perceived Value to In-App Purchase Intention shows a positive and significant effect ( $\beta = 0.455$ ,  $t = 5.623$ ,  $p < 0.05$ ), thus supporting H2. The higher t-statistic and path coefficient indicate that perceived value exerts a stronger influence on in-app purchase intention compared to game addiction. According to Hair et al. (2019), statistically significant path coefficients in PLS-SEM confirm the predictive relevance of the proposed relationships in the structural model. Overall, these results demonstrate that both hypotheses proposed in this study are supported, confirming the important roles of behavioral addiction and value perception in shaping users' in-app purchase intentions.

## DISCUSSION

The findings indicate that game addiction positively influences in-app purchase intention among Roblox players in Indonesia. The players who spend many hours playing and feeling emotionally attached to the game tend to show more willingness to purchase virtual items. These findings support earlier studies suggesting that addictive gaming behaviour increases exposure to in-game purchase features and encourages spending as a part of continued engagement. However the moderate effect suggests that addiction alone does not fully explain purchasing decisions.

More importantly, perceived value shows a stronger impact on in-app purchase intention. When players feel that virtual items provide social recognition, enjoyment, good performance and fair pricing, they are more likely to spend money in the game. This implies that Roblox players make purchase decisions not only because they play frequently, but because they genuinely see the value in what they buy. Overall, the results suggest that value perception plays a more decisive role than addiction in shaping in-app purchase behaviour.

## CONCLUSION

This study investigates the effects of game addiction and perceived value on in-app purchase intention among Roblox players in Indonesia using a PLS-SEM approach. The results indicate that both game addiction and perceived value have positive and significant effects on in-app purchase intention, thus supporting all proposed hypotheses.

The findings reveal that while game addiction contributes to higher purchase intentions, perceived value plays a more dominant role in explaining users' willingness to spend on in-game items. This suggests that players' evaluations of emotional enjoyment, social recognition, functional performance, and price fairness are more influential than addictive tendencies alone in shaping purchasing behavior within the Roblox platform. This study extends the literature on digital consumer behavior by providing empirical evidence from a user-generated gaming environment that has received limited academic attention. Practically, the results imply that sustainable monetization strategies should emphasize value creation rather than excessive reliance on addiction-driven mechanisms.

This study is limited by its cross-sectional design and geographically restricted sample, which may constrain generalizability. Future research is encouraged to employ longitudinal approaches, include broader populations, and incorporate additional behavioral variables to deepen understanding of in-app purchase behavior in digital games.

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