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Why do players buy virtual currency in mobile games? modeling purchase intention toward virtual currency in free-to-play mobile games

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Abstract

This study examines the determinants of purchase intention toward virtual items through the use of virtual currency in free-to-play mobile games by integrating relational, economic, social, and experiential drivers within a structural equation modeling framework. Data were collected through a cross-sectional survey of 201 Indonesian mobile game players and analyzed using SEM procedures. The results indicate that loyalty and price value significantly and positively influence purchase intention, with loyalty demonstrating the strongest effect. Social influence shows a marginal positive association, whereas personal satisfaction, hedonic motivation, and ease of purchase do not exhibit significant direct effects. These findings suggest that monetized behavior in mobile gaming environments is primarily driven by relational commitment and perceived economic fairness rather than short-term enjoyment or transactional convenience. Complementary analysis using the Blue Ocean Framework identifies strategic priorities from the player perspective, emphasizing the elimination of unfair gameplay elements, reduction of prices, improvement of item quality, and creation of new events and cosmetic features. The convergence between structural and strategic findings highlights the importance of aligning monetization architecture with long-term engagement and value perceptions. The study contributes to the literature by clarifying the relative strength of multiple determinants within a unified model and linking behavioral insights to strategic directions for game developers.

Keywords: virtual currency, free-to-play, mobile games, blue ocean strategy, freemium

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Introduction

Digital and free-to-play games have been the center of development within the gaming industry within recent decade, particularly favored through its simplicity, accessibility, and societal impacts compared to console and computer-based games (Kostopoulos et al., 2023; Sužnjević et al., 2022; Syvertsen et al., 2022). Within this free-to-play games, the monetization architecture of contemporary digital games has increasingly converged on microtransaction-based revenue streams, particularly within mobile and free-to-play ecosystems (Gibson et al., 2023). Industry reporting indicates that mobile gaming remains a dominant contributor to app store spending, reinforcing the commercial relevance of understanding purchase intention in game embedded markets (Sensor Tower, 2025). In Indonesia, the games market has been portrayed as one of Southeast Asia's largest, with spending levels reported at approximately USD 1.1 billion and a strongly mobile centered player base (Google, 2025). These market dynamics coincided with heightened visibility of competitive gaming and streaming ecosystems, intensifying social exposure to consumption cues surrounding skins, battle passes, and top ups using embedded virtual currencies within the games (Rita et al., 2024). Furthermore, in mobile games, these pressures are amplified by continuous content updates and time limited offers that create recurring opportunities for spending decisions (Steinnes, 2024). Despite wide industry scale and academic interest, understanding the drivers of purchase intention in digitally mediated games remains scarce, especially as new monetization mechanics and player segments continue to emerge.

Virtual currency in games functions as a transaction medium issued by publishers and exchangeable for in game benefits, cosmetics, or progression accelerating features, thereby transforming play into a hybrid consumption environment (Quick, 2025). Prior work has argued that online games and related digital consumption contexts develop rapidly as connectivity, platform infrastructure, and digitally mediated interaction expand (Chatterjee et al., 2025). Contemporary freemium research further highlights that most players do not pay, while a small subset contributes a disproportionate share of revenue, making conversion from non payer to payer a central managerial challenge (Nguyen et al., 2025). This structural imbalance increases the value of modeling psychological and social mechanisms that move users from enjoyment and engagement toward payment (Nguyen et al., 2025). Recent evidence also suggests that microtransaction purchase intention can be driven by performance related value, hedonic content, social factors, and flow experiences that elevate impulse buying tendencies (Rita

et al., 2024). At the same time, spending can be discouraged by perceptions that monetization is aggressive or unfair, indicating that intention formation is not purely value maximizing but also normatively and emotionally constrained (Salehudin & Alpert, 2024).

Positioning the present study within contemporary gaming research, the focal phenomenon concerns purchase intention toward virtual currency and related in-game items across free to play mobile games. Empirical evidence indicates that players' purchasing decisions are shaped by a combination of hedonic enjoyment, perceived social value, experiential engagement, and functional benefits, including competitive advantage and customization opportunities (Huo et al., 2024; Tjengharwidjaja & Keni, 2024). Continued usage patterns have been shown to mediate the relationship between flow experience and spending behavior, suggesting that affective immersion facilitates transactional intention (Perdana & Tjokrosaputro, 2023). In parallel, research on digitally mediated consumption demonstrates that social interaction features and identity related mechanisms strengthen purchase intention by fostering community attachment and symbolic consumption (Huang, 2012). At the same time, monetization systems may provoke negative reactions when pricing structures or promotional mechanisms are perceived as intrusive, manipulative, or unfair, thereby constraining willingness to pay (Syahrivar et al., 2022). Recognizing the coexistence of facilitating and inhibiting mechanisms, the present study investigates which factors most strongly explain purchase intention across multiple mobile gaming contexts and how these relationships operate within a heterogeneous player population.

Although the literature on in-app purchasing and virtual goods is growing, several limitations remain salient in emerging mobile game markets. First, a significant share of empirical work either treats freemium spending at a generic level or concentrates on a single title, which restricts inference about whether drivers of purchase intention generalize across distinct competitive genres and monetization designs (Ghazali et al., 2023; Salehudin & Alpert, 2024; Zhao et al., 2024). Second, emerging market contexts remain comparatively underlooked, despite evidence that compatibility, value perceptions, monetization tolerance, and social influence may differ across institutional settings and player cohorts (Buzulukova & Kobets, 2022; Salehudin & Alpert, 2024) Third, methodological choices in the domain increasingly combine variance based SEM with complementary approaches to capture both sufficiency and necessity logics, yet many applied studies still rely on single method estimation without robustness oriented triangulation (Mkedder et al., 2024; Mkedder & Özata, 2024). Collectively, these

limitations imply a need for designs that extend beyond one game, incorporate emerging market behavior, and model both enabling and inhibiting mechanisms of virtual currency purchasing. Therefore, the article is designed to make three distinct contributions. The first contribution is explanatory, by clarifying the relative importance of value based and socially mediated drivers of virtual currency purchase intention while accounting for known inhibitors such as monetization aversion and negative beliefs. The second contribution is generalizability oriented, by extending inference beyond a single title through a multi game scope that reflects heterogeneous monetization architectures and competitive dynamics within mobile gaming. The third contribution is methodological, by aligning with contemporary practice that strengthens behavioral modeling via SEM based estimation complemented by newer analytics that have been used to improve interpretability of virtual goods purchasing research. Practically, the findings are expected to inform game publishers on how to calibrate pricing, offer design, and social activation tactics while avoiding monetization patterns that trigger resistance and reduce conversion. These implications are directly relevant to sustaining freemium viability in markets where most users remain free players and retention switching costs are low.

Literature Review

Virtual Currency

Virtual currency is a digitally issued medium of exchange that enables players to acquire in-game items, upgrades, and cosmetic features within closed platform ecosystems. In free-to-play mobile games, it functions as the core monetization mechanism by facilitating indirect pricing and segmenting users according to willingness to pay (Balakrishnan & Griffiths, 2018; Hamari et al., 2017). Rather than operating as a neutral payment instrument, virtual currency restructures how players perceive prices and evaluate value, thereby shaping spending behavior (Stokes, 2024). Research further indicates that the separation between real-money expenditure and consumption outcomes reduces price salience and increases susceptibility to impulsive purchasing, particularly in immersive gaming environments (Rita et al., 2024).

Flow experience, a psychological state characterized by deep immersion, concentration, and loss of self-consciousness during activity engagement, emerges when challenge and skill levels are well balanced, leading to sustained attention and emotional involvement (Oliveira & Hamari, 2025; Rahman et al., 2025). Recent research indicates that flow experience enhances impulsive buying tendencies and increases in-game spending probability (Cao et al., 2024; Rita et al., 2024). When players experience flow,

cognitive resources are primarily allocated to gameplay rather than financial evaluation. This attentional focus weakens cost awareness and facilitates spontaneous purchasing behavior, particularly in time-sensitive promotional contexts. Moreover, flow can amplify the perceived hedonic and emotional value of virtual items, making purchases feel more rewarding and less constrained by rational cost-benefit analysis. In this way, flow operates as a psychological catalyst that intensifies the monetization potential of virtual currency systems, especially when combined with persuasive design features such as limited-time offers or social recognition cues.

However, this monetization potential is not without limits. Perceived aggressive monetization, defined as players' perceptions that monetization practices are excessive, manipulative, or exploitative, can undermine the positive effects of flow. Examples include excessive pop-up offers, pay-to-win mechanisms, and opaque pricing structures. Recent studies demonstrate that such perceptions reduce trust and generate psychological resistance toward in-game spending (Salehudin & Alpert, 2024; Syahrivar et al., 2022). Negative beliefs about monetization weaken perceived ethical legitimacy and erode emotional attachment to developers, thereby counteracting the motivational benefits of flow. As a result, even highly engaged players may refrain from purchasing virtual currency when monetization is perceived as unfair (Leahy, 2022). This suggests that while flow enhances purchase intention, its effectiveness is contingent upon the ethical legitimacy of monetization practices.

Virtual currency systems may also constrain purchase intention when monetization practices are perceived as unfair, opaque, or excessively exploitative. Such perceptions undermine trust and weaken willingness to pay, even among highly engaged users (Salehudin & Alpert, 2024). Empirical evidence further demonstrates that purchase intention is driven by perceived functional, emotional, and social value derived from virtual currency, with player satisfaction mediating these relationships (Nguyen et al., 2025). In socially embedded gaming environments, community interaction and symbolic recognition can legitimize spending behavior, whereas negative normative cues suppress it (Cai et al., 2022). Accordingly, virtual currency should be conceptualized as a design-mediated institution whose effectiveness depends on the alignment of perceived value, ethical legitimacy, and sustained user engagement. This study, therefore, aims to build on existing studies to predict determinants of buying behaviors in online games (Akbar et al., 2018).

Blue Ocean Strategy

Blue Ocean Strategy emphasizes value innovation through the simultaneous pursuit of differentiation and cost efficiency by creating uncontested market space rather than competing within existing industry boundaries. In digital platform and service contexts, this strategic logic has been increasingly applied to explain how firms redesign value propositions by eliminating, reducing, raising, and creating key attributes that shape consumer perceptions (Eromafuru, 2025). Recent research suggests that value innovation is particularly relevant in digital markets characterized by low switching costs and intense imitation, where sustainable advantage depends on redefining user experience and perceived benefits rather than incremental feature competition (Lee, 2025). Within mobile gaming ecosystems, Blue Ocean principles are reflected in the development of novel monetization models, differentiated reward systems, and hybrid content structures that enhance perceived value while minimizing user resistance to spending (Rong, 2022). By reframing monetization as a form of experiential and symbolic value creation rather than purely transactional exchange, Blue Ocean Strategy provides a useful analytical lens for understanding how game developers can design virtual currency systems and in-game offerings that strengthen purchase intention without relying on aggressive pricing or coercive mechanisms.

Personal Satisfaction

Personal satisfaction has long been recognized as a critical determinant of purchase intention. Satisfied customers are more likely to engage in repeat purchases and maintain loyalty toward a business, whereas dissatisfaction often leads to switching behavior and reduced retention (Kotler & Keller, 2016). Recent studies reinforce this view, showing that satisfaction not only drives repurchase but also strengthens trust and reduces perceived risk in digital and freemium contexts (Hamari et al., 2020; Rita et al., 2024). Moreover, satisfaction interacts closely with perceived value: when users believe that the benefits of a product or service justify its cost, they experience higher satisfaction, which in turn enhances purchase intention (Fortagne & Lis, 2024; Moro-Visconti & Cesaretti, 2023). In free-to-play ecosystems, satisfaction is often linked to fairness perceptions and bundle attractiveness, both of which shape willingness to spend on premium content. Thus, satisfaction can be conceptualized as a mediating mechanism between perceived value and purchase intention, amplifying the effectiveness of the freemium business model. Therefore, we hypothesize:

H1: Personal satisfaction has a positive effect on purchase intention toward virtual currency in mobile games.

Social Influence

Social influence refers to the extent to which individuals perceive that important others expect them to engage in a particular behavior. In mobile gaming environments, social interaction, peer communication, and influencer exposure shape players' perceptions of appropriate consumption practices. Recent studies indicate that social norms, community participation, and streamer endorsement significantly increase perceived legitimacy of in-game spending (Gong & Huang, 2023). When purchasing virtual currency is socially visible and normatively accepted, players are more likely to interpret spending as a form of social participation. Empirical evidence further suggests that social influence operates through both informational and normative mechanisms. Informational influence provides players with cues about item value and usefulness, whereas normative influence reinforces conformity to group expectations (Nguyen et al., 2025). These processes strengthen motivational pressure to engage in monetary transactions within games.

H2: Social influence has a positive effect on purchase intention toward virtual currency in mobile games.

Hedonic Motivation

Hedonic motivation refers to the degree of pleasure, enjoyment, and emotional satisfaction derived from system use. In gaming contexts, hedonic motivation is central to consumption behavior because games are primarily entertainment products. Recent empirical studies confirm that enjoyment, excitement, and aesthetic appreciation significantly predict willingness to purchase virtual currency (Huo et al., 2024; Tjengharwidjaja & Keni, 2024). High hedonic motivation enhances players' emotional engagement, which reduces sensitivity to monetary costs and increases experiential valuation of purchases. Consequently, spending becomes integrated into leisure consumption rather than perceived as financial sacrifice (Hollebeek et al., 2022).

H3: Hedonic motivation has a positive effect on purchase intention toward virtual currency in mobile games.

Ease of Purchase

Ease of purchase represents the perceived convenience and effortlessness with which users can acquire desired items or services. In the context of mobile games, ease of

purchase is often facilitated by virtual currency systems that allow instant access to characters, skins, or upgrades without the time-consuming process of grinding or participating in limited events. Prior research indicates that convenience is a critical driver of purchase intention, as consumers tend to favor options that minimize cognitive and temporal costs (Saha et al., 2023). In digital ecosystems, ease of purchase is further amplified by seamless payment integration and one-click transactions, which reduce friction and encourage spontaneous buying behavior (Singh & Biswas, 2025). Moreover, studies on freemium models suggest that when players perceive in-game purchases as a shortcut to enjoyment or progress, their willingness to pay increases significantly (Hamari et al., 2017; Rita et al., 2024). Conversely, high transaction complexity or opaque payment systems can deter users and weaken purchase intention (Nguyen et al., 2025). Therefore, ease of purchase can be conceptualized as a determinant of purchase intention, particularly in environments where instant gratification and time efficiency are highly valued.

H4: Ease of purchase has a positive effect on purchase intention toward virtual currency in mobile games.

Price Value

Price value reflects the cognitive evaluation of whether perceived benefits of a product justify its monetary cost. In free-to-play games, price value is closely linked to perceptions of fairness, exchange rates, and bundle attractiveness. Recent research shows that favorable price value perceptions increase willingness to purchase virtual currency by reducing perceived financial risk (Fortagne & Lis, 2024). Moreover, virtual currency systems often obscure direct price comparisons, making subjective value assessment more salient than objective pricing (Moro-Visconti & Cesaretti, 2023). When players perceive that in-game purchases deliver sufficient functional and emotional benefits relative to cost, they are more likely to develop positive purchase intentions (Rita et al., 2024). This hypothesis builds on previous study, examines the effect of perceived value on users' intention to use freemium services and purchase premium content which finds that enhancing perceived value is central to strengthening the effectiveness of the freemium business model (Hamari et al., 2020).

H5: Price value has a positive effect on purchase intention toward virtual currency in mobile games.

Player Loyalty

Loyalty reflects a player's psychological attachment, commitment, and intention to continue using a particular game. In digital service environments, loyal users exhibit stronger tolerance toward monetization mechanisms and higher lifetime spending levels. Recent studies demonstrate that loyalty enhances purchase intention by strengthening emotional bonds and reducing switching tendencies (Ghazali et al., 2023; Nguyen et al., 2025). Loyal players are also more willing to financially support game developers as a form of reciprocity for perceived service quality and enjoyment. This relational exchange perspective suggests that loyalty transforms transactional behavior into a symbolic act of commitment (Perdana & Tjokrosaputro, 2023).

H6: Player loyalty has a positive effect on purchase intention toward virtual currency in mobile games.

Methods

This study employs a conclusive, descriptive, multiple cross-sectional research design using a quantitative approach. Conclusive research is intended to test hypotheses and evaluate relationships in order to support decision-making (Malhotra et al., 2010). Data were collected through a multiple cross-sectional survey in which information was obtained once from each respondent within a broader sample (Malhotra et al., 2020). A quantitative approach was adopted because the data were numerical and analyzed using statistical techniques (Sugiyono, 2014). The study applied convenience sampling, whereby respondents were selected based on accessibility and ease of data collection (Sugiyono, 2014). Data were gathered using a structured questionnaire distributed via Google Forms. Following SEM sample size recommendations suggesting a minimum of 10 observations per indicator, the study employed 16 indicators multiplied by 10, resulting in a minimum required sample of 160 respondents with valid responses (Hair et al., 2022; Kline, 2023).

The online questionnaire was disseminated over a three-day period, from June 19 to June 21, through multiple social media platforms including Line, WhatsApp, Twitter, and Instagram targeting gamers who are frequent buyers of virtual currency. The majority of responses were obtained via Instagram, where distribution was conducted using instastory video posters shared by several collaborator accounts and larger influencer accounts such as @nadyaluqyana. Additional outreach was achieved by engaging with mobile gaming communities through comment interactions on forum accounts like @esports.ku, @mobilelegendsfyi, and @iespajatimorg. This multi-platform dissemination

strategy ensured broad reach and facilitated efficient data collection within the targeted timeframe. In addition, the Blue Ocean Framework was incorporated through a supplementary questionnaire designed to identify which game attributes should be eliminated, reduced, raised, or created in order to better align with player preferences and indirectly enhance virtual item sales.

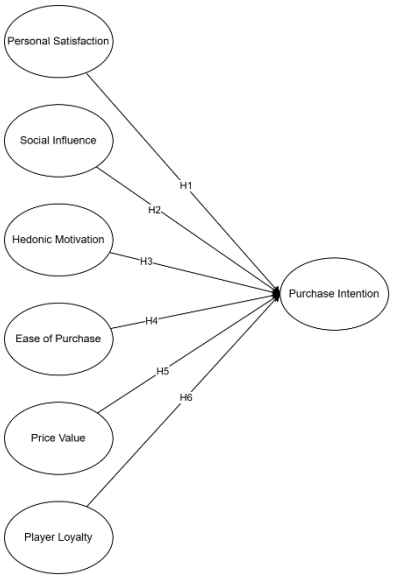

Figure 1. Conceptual Model

The research model integrates and extends prior frameworks developed by Fang et al. (2018), Lee and Jan (2018), and Pham and Khanh (2020), in order to obtain a more comprehensive understanding of the determinants of purchase intention toward virtual currency in mobile games. By synthesizing these models, the study aims to capture a broader set of psychological, social, and evaluative drivers of spending behavior in free-to-play environments. The independent variables examined include personal satisfaction, social influence, hedonic motivation, ease of purchase, price value, and loyalty, which are conceptualized as antecedents of purchase intention. The conceptual model is illustrated in Figure 1. Consistent with structural equation modeling procedures, the measurement model will be assessed through variance inflation factor (VIF) to detect multicollinearity, standardized factor loadings to evaluate indicator reliability, average variance extracted (AVE) to assess convergent validity, and Cronbach's alpha and composite reliability to examine internal consistency (Hair et al., 2022; Kline, 2023). At the structural level, overall model adequacy will be evaluated using multiple goodness-of-fit indices to determine the extent to which the proposed model represents the observed data (Hu & Bentler, 1999).

Result

A total of 220 questionnaire responses were received. After the screening stage, 201 responses met the study criteria and were retained as valid observations for subsequent analyses. This number suffices the aforementioned level of minimum respondents for this study, which is 160. The questionnaire was administered as a self-administered online survey and disseminated through the researcher's social media channels and the social media accounts of the researcher's contacts in Indonesia. Distribution also occurred via several groups managed by the researcher, and through direct outreach using WhatsApp, LINE, and Instagram, alongside other social media channels. With the dataset finalized, the analysis proceeded in a structured sequence consistent with SEM procedures. The evaluation began with diagnostic assessment of potential multicollinearity among predictor constructs before examining the measurement model and overall model fit.

Multicollinearity was assessed using the variance inflation factor (VIF) to ensure that the independent variables did not exhibit excessive linear dependence. Following the criterion adopted in this study, VIF values below 10 indicate the absence of multicollinearity concerns (Hair, 2013). As presented in Table 1, all constructs demonstrated VIF values well below the threshold, confirming that each predictor contributed distinct explanatory variance to the structural model.

Table 1. VIF Results

Predictor construct	Tolerance	VIF
Personal Satisfaction	0.482	2.076
Social Influence	0.684	1.461
Hedonic Motivation	0.449	2.226
Ease of Purchase	0.578	1.732
Price Value	0.366	2.734
Loyalty	0.413	2.419

Measurement Model Results

The measurement model was evaluated using confirmatory factor analysis. Indicator performance was first assessed through standardized factor loadings, followed by convergent validity and reliability assessment. Convergent validity was evaluated using AVE, while reliability was evaluated using Cronbach's Alpha and Composite Reliability. The study applied the cut-off values stated in the manuscript, including factor loading thresholds and AVE minimums, and assessed internal consistency via Alpha and CR benchmarks (Fornell & Larcker, 1981; Malhotra, 2010).

Overall, the measurement results indicate that the constructs demonstrate acceptable convergent validity through AVE values exceeding the minimum criterion stated in the study and show satisfactory reliability in most constructs based on Alpha and CR

standards used in the manuscript (Fornell & Larcker, 1981; Malhotra, 2010). The Loyalty construct shows comparatively lower internal consistency relative to the other constructs, as reflected by its Cronbach's Alpha and Composite Reliability values, but it remains reported as part of the retained measurement model.

Table 2. Measurement model summary (loadings, AVE, CR, Cronbach's Alpha)

Construct	Factor loading range	AVE	CR	Cronbach's Alpha
Personal Satisfaction (PS)	0.81–0.83	0.678	0.861	0.863
Social Influence (SI)	0.72–0.87	0.632	0.866	0.872
Hedonic Motivation (HM)	0.77–0.89	0.680	0.861	0.864
Ease of Purchase (EoP)	0.64–0.89	0.569	0.783	0.795
Price Value (PV)	0.71–0.81	0.600	0.815	0.818
Loyalty (L)	0.55–0.70	0.513	0.649	0.551
Purchase Intention (PI)	0.64–0.76	0.503	0.882	0.835

Goodness-of-fit Test

Model-level goodness-of-fit was assessed before hypothesis testing. The study applied the criterion that a model is acceptable when at least three goodness-of-fit indicators meet minimum thresholds (Ferdinand, 2002). The resulting fit statistics are reported in Table 3. Consistent with the stated decision rule, the model met a minimum of three fit criteria (CMIN/DF, PNFI, PGFI) and was therefore treated as acceptable for subsequent structural interpretation and hypothesis testing (Ferdinand, 2002).

Table 3. Structural model Goodness-of-Fit results

Fit index category	Measure	Cut-off value	Model value	Interpretation
Absolute fit	CMIN/DF	1.00≤CMIN/DF<5	4.137	Fit
Absolute fit	GFI	≥ 0.80	0.661	Not fit
Absolute fit	RMR	≤ 0.08	0.397	Not fit
Absolute fit	RMSEA	< 0.08	0.125	Not fit
Absolute fit	AGFI	≥ 0.90	0.587	Not fit
Incremental fit	NFI	≥ 0.90	0.674	Not fit
Incremental fit	TLI	≥ 0.90	0.696	Not fit
Incremental fit	CFI	≥ 0.90	0.729	Not fit
Incremental fit	IFI	≥ 0.90	0.732	Not fit
Parsimony fit	PNFI	0.60–1.00	0.601	Fit
Parsimony fit	PGFI	0.50–1.00	0.542	Fit

Structural Model and Hypothesis Testing

Following confirmation of acceptable model fit, the structural model was evaluated to test the hypothesized relationships between the independent variables and purchase intention. The analysis examined standardized path coefficients and associated p-values to determine the direction and statistical significance of each relationship. The results, available in Table 4, indicate that price value ($\beta = 0.423$, $p = 0.001$) and loyalty ($\beta = 0.625$, $p = 0.003$) have positive and statistically significant effects on purchase intention. Loyalty

exhibits the strongest standardized coefficient among all predictors, suggesting that relational attachment to the game plays a dominant role in shaping spending intention. Social influence (β = 0.168, p = 0.053) also shows a positive relationship with purchase intention and is treated as statistically significant based on the study's decision criteria. In contrast, personal satisfaction (β = -0.098, p = 0.372), hedonic motivation (β = 0.060, p = 0.561), and ease of purchase (β = 0.157, p = 0.150) do not demonstrate statistically significant effects on purchase intention. Overall, the structural findings suggest that relational and value-based factors exert stronger influence on purchase intention compared to experiential or convenience-related drivers within the examined mobile gaming context.

Table 4. Structural Path Coefficients and Hypothesis Testing

	Path	β	p-value	Decision
H1	Personal Satisfaction → Purchase Intention	-0.098	0.372	Not supported
H2	Social Influence → Purchase Intention	0.168	0.053	Supported
H3	Hedonic Motivation →Purchase Intention	0.060	0.561	Not supported
H4	Ease of Purchase → Purchase Intention	0.157	0.150	Not supported
H5	Price Value → Purchase Intention	0.423	0.001	Supported
H6	Player Loyalty → Purchase Intention	0.625	0.003	Supported

Blue Ocean Framework Result

In addition to the structural model analysis, the study implemented the Blue Ocean Framework to identify strategic elements that respondents perceived as necessary to eliminate, reduce, raise, or create within mobile game monetization systems. Data were obtained directly from player responses through a structured questionnaire. The aggregated results are presented in Table 5. Within the Eliminate category, respondents identified cheaters, recurring game bugs, and network issues. Under the Raise dimension, respondents indicated discounts and item quality as areas requiring improvement. In the Reduce category, prices and item-related bugs were reported. Finally, under the Create dimension, respondents emphasized the need for additional events and cosmetic skins. These responses summarize the strategic elements identified by players across the four Blue Ocean action dimensions.

Table 5. Blue Ocean Framework Strategic Matrix

Eliminate	Raise
Cheaters	Discounts
Game bugs	Item Quality
Network issues	
Reduce	**Create**
Prices	Events
Item bugs	Skins

Discussion

This study set out to identify the determinants of purchase intention toward virtual currency in free-to-play mobile games by integrating value-based, social, experiential, and relational drivers within a unified structural model, and by complementing the model with a Blue Ocean strategic mapping. The structural results reveal that loyalty and price value are the most influential predictors of purchase intention, followed by a marginal effect of social influence, while personal satisfaction, hedonic motivation, and ease of purchase do not demonstrate significant effects. These findings refine prior assumptions that experiential enjoyment alone drives in-game purchasing behavior and instead highlight the centrality of relational commitment and economic evaluation in monetized gaming environments.

The dominance of loyalty suggests that purchase intention in mobile games is primarily relational rather than purely experiential. While hedonic motivation and satisfaction are traditionally associated with digital entertainment consumption, their non-significant effects indicate that enjoyment may function as a necessary but insufficient condition for monetized behavior. In contrast, loyalty reflects long-term attachment and psychological commitment to the game ecosystem, which appears to translate more directly into financial support. This finding contributes theoretically by clarifying that sustained engagement and identification with the game environment are stronger predictors of monetization than short-term affective responses.

Similarly, the significant role of price value reinforces the importance of economic rationality in virtual currency purchasing. Players evaluate whether the perceived benefits of virtual currency justify their monetary cost. Even within hedonic consumption contexts, transactional intention remains anchored in perceived exchange fairness. This result aligns with value-based adoption logic and indicates that players do not disengage from cost-benefit evaluations simply because the product is digital or entertainment-oriented. The structural insignificance of ease of purchase further supports this interpretation, suggesting that convenience alone does not stimulate intention when economic evaluation remains unfavorable.

The Blue Ocean findings provide complementary insight into these structural outcomes. The strategic mapping highlights players' demand to eliminate cheaters and technical disruptions, reduce prices, and raise discounts and item quality. These elements correspond closely with the structural importance of loyalty and price value. Removing unfair competitive advantages and persistent bugs likely strengthens trust and long-term attachment, thereby reinforcing loyalty. Similarly, increasing discounts and improving

item quality directly enhance perceived value, which was found to significantly predict purchase intention. The emphasis on creating new events and cosmetic skins also reflects players' desire for differentiated content, although the structural insignificance of hedonic motivation suggests that novelty alone may not be sufficient to drive purchasing without corresponding value justification.

From a theoretical standpoint, the study makes three contributions. First, it differentiates between experiential enjoyment and relational commitment as distinct drivers of virtual item purchase intention, demonstrating that loyalty exerts stronger influence than hedonic motivation in the examined context. Second, it integrates structural modeling with Blue Ocean strategic mapping, offering a dual-layer analytical framework that connects behavioral determinants with actionable strategic dimensions. Third, it extends existing models by empirically testing multiple predictors simultaneously across mobile game settings rather than focusing on a single psychological mechanism.

Conclusion

This study investigated the determinants of purchase intention toward virtual currency in free-to-play mobile games by integrating relational, economic, social, and experiential drivers within a structural model and complementing the analysis with a Blue Ocean strategic framework. The findings demonstrate that loyalty and price value are the most influential predictors of purchase intention, while social influence plays a secondary role and experiential variables such as hedonic motivation and personal satisfaction do not exert significant direct effects. These results indicate that monetization in mobile games is primarily driven by long-term relational attachment and perceived economic fairness rather than short-term enjoyment or convenience factors.

The study contributes to the literature by clarifying the relative strength of multiple determinants within a single explanatory framework, showing that commitment-based and value-based mechanisms dominate over purely affective drivers in shaping spending intention. The integration of structural modeling with the Blue Ocean action matrix further extends the analytical approach by linking behavioral determinants to strategic action categories. The Blue Ocean findings reinforce the structural results, as respondents emphasized price adjustments, improved item quality, fairness in gameplay, and the elimination of technical and competitive distortions, all of which align with strengthening loyalty and perceived value.

From a managerial perspective, the findings suggest that developers should prioritize building durable player relationships and transparent value propositions rather than relying exclusively on immersive features or monetization prompts. Strengthening loyalty through fair gameplay systems, improving perceived item quality, offering meaningful promotional mechanisms, and addressing technical disruptions are likely to enhance purchase intention more effectively than convenience-based adjustments alone.

Despite its contributions, the study is limited by its cross-sectional design and reliance on self-reported data from a convenience sample within a single national context. Future research may adopt longitudinal designs, compare cross-country player behavior, or incorporate behavioral transaction data to further validate the identified mechanisms. Overall, the study advances understanding of virtual item monetization by demonstrating that relational attachment and perceived value constitute the primary foundations of purchase intention in mobile gaming environments.

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