



American Journal of Economics and Business Innovation (AJEBI)

ISSN: 2831-5588 (ONLINE), 2832-4862 (PRINT)

VOLUME 5 ISSUE 2 (2026)

**PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA**

Coercive Micro-Transaction: Influence Spending Behavior among Non-Spenders, Casual Spenders, and Whales

Tan Edelfin¹, Diata Arianne¹, Bobes Liezel¹, Isada John Kennet¹, Ocampo Althea¹

Article Information

Received: January 22, 2026

Accepted: April 11, 2026

Published: May 17, 2026

Keywords

Casual Spenders, Gaming Experience, Gaming Experience, Micro-transactions, Non-spenders, Tipping Point, Whales

ABSTRACT

The study analyzes the coercive techniques of games that drive its players into engaging different kinds of micro-transactions. It aims to understand the different gaming experience between Non-spenders, Casual Spenders, and Whales and how it affects their gameplay. The study's objective is to also identify the players' tipping point towards micro-transactions through exposure to prompts, limited time offers, and gaming satisfaction. The quantitative study uses Google Forms to collect data from the respondents. The questionnaire gathers information about players' gaming experience in relation with micro-transactions and their tipping points. The study's sampling method uses Purposive Sampling as it aims to select participants in a population as its respondents. Not much work has been done specifically to look at how monetization strategies influence or affect the way players will choose to do things within a game. This research could help all stakeholders involved in digital gaming, to promote ethical design and make educated spending decisions. Looking at how players behave when there are different types of players, this study provides insight into the aspects of fairness, satisfaction and long-term engagement.

INTRODUCTION

As the gaming industry continues to grow rapidly, it is projected to grow 3.4% which is approximately 190 billion USD by the year of 2025. The global leader in PC & Console games data, Newzoo, expected the market to achieve a compound annual growth rate of around 3.3% through 2027 (Gattiker *et al.*, 2025). Game developers have used a strategy to capitalize on gaming such as micro-transaction which influences the players' spending behavior. According to Jaimes (2025), "The global market for in-game purchases reached approximately \$74.4 billion in 2025 to which the average annual spending per gamer on micro-transactions stands at \$147 in 2025, up from \$132 the previous year. This steady increase demonstrates how developers continue optimizing their offerings to encourage regular purchases while maintaining player satisfaction." Players have responded differently with this strategy, resulting in three different categories of spenders: Non-spenders, Casual Spenders and Whales. With little to no knowledge on gaming experiences and satisfaction does this monetization strategy influence spending patterns of the players.

Micro-transactions allow players to purchase in-game currency to buy virtual goods, upgrades, or cosmetic items within the game. However, many games now incorporate persuasive or monetization strategies such as limited-time offers, frequent purchase prompts, and reward-based systems that may influence players' spending behavior. According to Lorraine (2024), this type of strategy is a powerful psychological motivator that drives players to spend their money during limited-time events where it

creates a sense of value and desirability that encourages players to engage in these events to avoid missing out. These strategies affect players' behavior differently, leading to three main categories such as Non-spenders, Casual Spenders, and Whales.

This study allows quantitative research design to measure how coercive micro-transaction strategies influence the spending behavior of these three categories. Through survey data, this research aims to identify players' tipping points toward in-game purchases and analyze how gaming experience and satisfaction relate to spending patterns

LITERATURE REVIEW

To What Extent Do Gaming Experience Factors Influence Players' Spending Behavior?

Gaming factors that players' experience in the game plays a significant role in influencing the players' decision to engage in micro-transactions. These factors can influence the quality of the players' experience such as immersion, enjoyment, satisfaction, frustration, competitiveness, the chance to get exclusive/rare items or desire to advance faster in the game. According to Construcasa (2025), these gaming factors influence the players' spending behavior by making them feel more engaged and view micro-transactions to acquire such as skins, power-ups and virtual currency, as a way to improve their experience that significantly influence the players to purchase. The study also suggests that time-limited offers, progress indicators and social comparison increase the players' willingness to purchase repeatedly or make a large purchase. According to Subarkah W, *et al.* (2023), social interaction is also a

¹ FEU Roosevelt Marikina, Philippines

* Corresponding author's e-mail: ctan@feuroosevelt.edu.ph

factor that influences players' purchasing intention because the interaction with other players can increase the level of enjoyment, create bonds and also be more engaged in the game. Therefore, players are more likely to buy in-game items when recommended by friends or fellow players. Another factor that influences players is that spending players have an unfair competitive advantage over non-spenders that could affect the players' level of satisfaction. In which, according to Watola, S, *et al.* (2025), it can also influence the non-spending players' views and behavior towards engaging in micro-transactions. Hietamäki, V., (2025) stated that the requirement to remain competitive becomes dependent on players who are willing and capable of spending more money in the game to gain the best advantage instead of developing the skills through grinding. According to Putratama, D. and Retnowardhani, A. (2025), another factor that also strongly influenced in-game spending is the impact of live-streamers and content creators because of their popularity, credibility and connections with their followers that can affect the players' decision in spending, as many players seek for reviews before making a purchase. And when the reviewer is credible and relatable, players are more likely to be influenced in spending.

H01: Gaming experience factors have a significant influence on players' spending behavior in engaging in micro-transactions.

How Frequently Are Players Exposed To Micro-Transaction Prompts During Gameplay?

Micro-transactions are commonly used in video games as low-cost purchases such as skins, loot boxes, and battle passes, which are often integrated into gameplay systems (Byrne & Lee, 2023). Because these features are part of progression and customization, players are frequently exposed to micro-transaction prompts while playing. The potential for micro-transaction systems to transform into a multi-billion-dollar business is a clear sign that the systems are now becoming standard in modern gaming (Rita *et al.*, 2024). Gaming environments which provide both rewards and enjoyment to players create conditions which lead players to make impulse purchases whenever they encounter in-game offers. (Rita *et al.*, 2024). Game design elements which include reward systems and item rarity and reinforcement schedules create ongoing chances for players to make purchases, which leads to increased player contact with micro-transaction notifications (Lee *et al.*, 2025). Micro-transactions such as battle passes and progression-based systems are also easily accessible, making them a frequent part of the gaming experience (Gibson, E. *et al.*, 2024). As players aim to achieve goals like winning, obtaining limited items, and gaining social recognition, they are repeatedly exposed to these prompts, which influence their spending behavior during gameplay (Wibowo & Lumbanraja, 2022). Bacay *et al.* (2025) investigated the impact of marketing techniques such as fake advertisements for games and gaming play-through videos on the player's attraction to and interaction with

the game. The study implies that deceptive marketing techniques may manipulate the expectations of the gamer and even his or her level of satisfaction after playing the game. According to the study's survey results, it shows that players agree they frequently experience micro-transaction prompts, especially at the very moment when they open a game.

H02: Micro-transactions and gaming systems have a significant relationship where players are frequently exposed to micro-transactions, especially when opening the game.

The Impact of Time-Limited Offers Influences Players' Tipping Point Towards Engaging In Micro-Transactions

In a gaming environment, a player's impulse acts as an emotional cue and a prediction of an in-game purchasing behavior. According to the study, impulsive purchases are mostly motivated by an exciting experience with a deep sense of satisfaction acting as a moderator. Gamification has a significant impact on customer behavior it shows to improve the shopping experience, encourage impulsive purchases, and moral marketing tactics to increase micro-transactions. (Mahendra *et al.*, 2025). Players' often base their purchases on game recognition, higher status, opinion of other players, and personal motivation. When collectively, the players' expects benefits from the experience, products, or services they purchased in the game (Burak Aylin, 2025). Players engage in micro-transactions due to peer pressure and a desire to improve their image in the game. When a player's expectations match reality, they are happy, especially when their purchases satisfy their expectations. A player's desire to involve themselves in micro-transactions is influenced by how satisfied they are with the game. Players' are most likely to purchase, pay attention to promotions, and updates, when in-game products they see can be greatly useful to them in the game. (Cura *et al.*, 2022). Social content increases a player's social standing, this is an effective motivator in micro-transactions. This suggests that self-esteem, happiness, and service quality, have a major impact on purchasing intentions. In an effort to blend in or stand out in their communities, players buy in-game products that improve their social status or gaming experiences. (Christian *et al.*, 2024). The design of a game greatly influences players' impulsivity of buying loot boxes which aim to create a flow of state in players. This design integrates indulgent motivations such as adventure, satisfaction, and shopping desires. Additionally, players' purchasing decisions are influenced by the value of the items in loot boxes (Taufiq & Sobari, 2023). The study's survey results shows FOMO; fear of missing out, time-limited offers, social influences and comparison between players, and trial based products or services are tipping points that influences players into engaging micro-transaction.

H03: Social influences and satisfaction fulfillment have significant influences towards players' tipping point.

The Influence of Players' Spending Behavior on Gameplay Satisfaction Among Non-Spender, Casual Spenders And Whales

Monetization Methods and Willingness To Pay (WTP) are important in the gaming sector, mainly with "Freemium" games; i.e., a game that is free to play at a basic level but charges for advanced features and Free To Play games.) have been studied by researchers to find out how different psychological/behavioral factors can affect the way consumers make purchases (Purchase Intention (PI) and Willingness To Pay (WTP). They found that: 54.3% of people would prefer a free model (like free with ads) 30.5% would prefer to use freemium, with in-app purchases; 15.2% would prefer using premium, with no ads. Among the participants, 35.2% were payers, and many were motivated to spend because of behavioral factors rather than economic factors. Even as some non-spenders unexpectedly made purchases due to the persuasion of freemium models. (Madepo, 2026). The study shows how time-limited purchases and psychological cues can change non-spending players into spending players. The effects show that this freemium games give an advantage among players through psychology and beyond access limitations (Bhinder, 2026). The term "whale" refers to a player who spends a lot of money, often concerning spending habits that indicate financial vulnerability and poor impulse control. These players are drawn to unpredictable rewards, similar to how slot machines work. This affects the psychological highs that players experience from gaming, which can lead to addiction (Liberty, 2025). Whales (i.e., high-spending gamers) like to compete with their friends and escape the difficulties associated with games by using monetarily purchased advantages, while non-spenders derive satisfaction from progressing in their skills and overcoming increasing difficulties of the games themselves. Spenders experience an immediate boost in satisfaction from purchasing but also face a rapid decline in satisfaction. Because of this, it leads to a feeling of lesser mastery compared to non-spenders. This difference in motivations indicates that while whales might enjoy the quick fixes, non-spenders often find deeper fulfillment in the difficulty and challenge itself, suggesting a complicated relationship between spending behaviors and player satisfaction. (Costes & Bonnaire, 2022). Another study explores the difficulty settings of the game that adjust to the players' performances affecting behavior and profits in games. When the game has easier mechanics, players are less likely to spend money but it can encourage them to continue playing the game longer. Spenders react differently with the changes in the game compared to non-spenders. Another thing is that whales and non-spenders have a different reasoning as to why they spend or don't spend their money in the game. The study also suggests that spenders are more likely to continue spending over time. (Ascarza *et al.*, 2025).

H04: Psychological triggers and skill mastery greatly influences the spending behavior and gameplay satisfaction among non-spender, casual spenders and whales.

Research Questions

This study seeks to explore the gaming experiences in shaping the players' spending behavior and aims to answer the following research questions:

1. To what extent do gaming experience factors influence players' spending behavior?
2. How frequently are players exposed to micro-transaction prompts during gameplay?
3. The impact of time-limited offers influences players' tipping point towards engaging in micro-transactions.
4. The influence of players' spending behavior on gameplay satisfaction among non-spender, casual spenders and whales.

MATERIALS AND METHODS

Research Locale

The study will be conducted in Metro Manila, Philippines, targeting players. With a population of about 15,531,900 (World Population Review, 2024), Metro Manila has a large and diverse population of active players. Making it an appropriate location for examining players' tipping point towards micro-transactions through exposure to prompts, limited time offers, and gaming satisfaction. The study involved 219 people who play online games regularly and are between the ages of 16 and 40.

Conceptual Framework

The study will use Moderated Causal Framework. According to Peter Munene (2025) a moderated causal framework is a method used in research to ascertain not only if an independent variable (cause) influences a dependent variable (outcome), but also how and when a third variable (moderator) influences that causal connection. In the framework, Cause serves as the independent variable. Outcome serves as the dependent variable. And Moderator serves as the variable that changes the strength of the relationship between Cause and Outcome. The Framework is shown below.

Frame 1 (Cause). The Causes of the study are, exposure to micro-transactions prompts; the frequency and placement of in-game purchase requests. Time-limited offers; marketing tactics that use urgency. And gaming experience factors; such as increasing difficulty, progress speed, and social competition, that will serve as the independent variable.

Frame 2 (Moderator). The Moderators of the study will be players ages 16 to 40 in Metro Manila. The players are categorized into three types. Non-Spenders; players who never purchase. Casual Spenders; Players who make occasional and low cost purchases. And Whales; Players who make expensive and frequent purchases, the type to almost buy everything in the game. The researchers will be able to assess the hypothesis's validity and determine whether or not it should be rejected.

Frame 3 (Outcome). The outcome of the study are, gameplay satisfaction and tipping point; the causes of the study. The outcome would be different depending on the Moderators. After gathering and analyzing the outcome

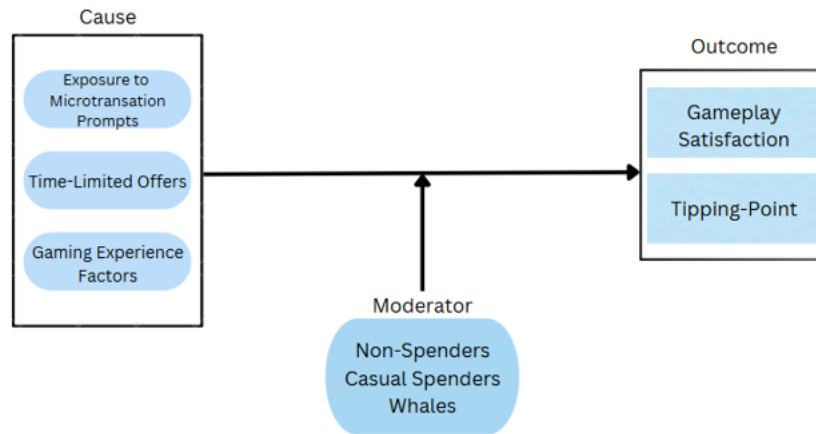


Figure 1: Causes of the study

of the respondents, the researchers would be able to provide recommendations of the study.

Sampling Method

This study will use purposive sampling as the sampling method for this study. A type of probability sampling in which the researcher randomly selects a subset of participants from a population and selects participants who meet specific criteria relevant to the study. All respondents selected will be active online players between the ages of 16 and 40 residing within Metro Manila. A total of 219 respondents participated in this survey. Each respondent will have prior experience with micro-transactions, and respondents will also fall under one of three groups: Non-spenders, Casual spenders, or Whales.

Data Gathering

The data collection for the research will occur within two weeks, with the use of Google Forms. The researchers will gather the respondents to do the survey through social media platforms such as discord and messenger, within Metro Manila. In the beginning of the survey, consent and information will be provided to the respondents regarding the purpose of the study, the respondents will remain confidential, and that they are voluntarily participating. Demographic information and gaming experience information (micro-transaction prompt exposure and time-limited offer exposure), the questionnaire will ask respondents to choose between A 5-point Likert Scale including options from “Strongly Disagree” to “Strongly Agree” regarding their enjoyment of gaming. After data collection has been conducted, the survey responses will be coded, prepared, and validated by Reginald P. Arimado as the statistician of the study.

Instrument

This study will use online questionnaires as a survey tool and be distributed on different social media platforms. These questionnaires will measure the players’ exposure to micro-transaction prompts, spending behavior and gameplay satisfaction. A 5-point Likert Scale includes

options from “Strongly Disagree” to “Strongly Agree” that will capture the respondents’ opinion, perceptions and experiences. This instrument allows quantitative analysis to show how micro-transaction strategy, players’ spending behavior relates to gameplay satisfaction.

Strongly Disagree	1	1.00 – 1.80
Disagree	2	1.81 – 2.60
Neutral	3	2.61 – 3.40
Agree	4	3.41 – 4.20
Strongly Agree	5	4.21 – 5.00

Figure 2: Moderators of the study

Scope of Limitations

The study focuses on Non-Spender, Casual Spender, and Whales’ tipping point towards micro-transactions through exposure to prompts, limited time offers, and gaming satisfaction. The 219 respondents will be coming from Metro Manila and ages 16 to 40 years old. The study’s scope of players will be in every platform of gaming; console, PC, mobile, and cloud. Excluding the mode of payment given the respondents will be players who spends or doesn’t spend on games and it’s irrelevant to the study. The researchers also exclude the type and category of games that the players play given its broad spectrum and irrelevance. The study will not cover the areas outside Metro Manila nor the ages outside of the 16 to 40 range.

RESULTS AND DISCUSSION

This section summarizes the study’s conclusions, including statistical analysis and significant insights based on the collected data. To ensure understanding, the findings are summarized in tables and figures.

Residency of Respondents

Table 1 exhibited concentration within Metro Manila. Consequently, the study’s findings exclusively represent the populace residing in the capital, as there was no

inclusion of participants from regions beyond the metropolitan area

Table 2 shows the respondents' age range is mostly young. It indicates that the findings represent the viewpoints of

Table 1: Respondents residency within and outside Metro Manila

Residency	Frequency (n)	Percentage (%)
Metro Manila	219	100%
Outside Metro Manila	0	0%

Table 2: Age Distribution of Respondents

Age Group	Frequency (n)	Percentage (%)
Below 16	0	0%
16-20	95	43.4%
21-25	72	32.9%
26-30	35	16%
31-35	17	7.8%
36-40	0	0%

Table 3: Respondents Categories as Players

Categories	Frequency (n)	Percentage (%)
Non-Spenders	46	21%
Casual Spenders	162	74%
Whales	11	5%

Table 4: Gaming Experience Factors

Gaming Experience Factors	Mean	Standard Deviation	Interpretation
I feel like buying upgrades will make my progress faster.	3.70	0.96	Agree
I encounter locked chests or rewards that require a paid key to open.	3.32	1.12	Neutral
The upgrades will help me level up my characters to win.	3.90	1.01	Agree
Spenders have an advantage over non-spenders.	3.81	1.06	Agree
Progress feels slower unless I buy upgrades.	3.57	1.09	Agree
I have made purchases specifically to keep up with the skill level or gear of my friends.	3.04	1.19	Neutral
I find it difficult to progress in the game without purchasing boosters or power ups.	2.99	1.13	Neutral
I am motivated to spend when a game offers a monthly pass (subscription) rather than individual items.	3.16	1.17	Neutral
Overall Mean	3.44	1.14	Agree

GenZ and younger Millennials in the Metro Manila area. Table 3 shows the respondents categories as players based on their spending power. It indicates that three quarters of the respondents are Casual Spenders.

The respondents mostly agreed on the extent to which the gaming experience factors influences players' spending behavior, with an overall mean of 3.44. The highest agreement on gaming experience factor was that upgrades will help level up players' characters to win.

Table 5 shows that the respondents mostly agreed on the frequency of players being exposed to micro-transaction prompts during gameplay, with an overall mean of 3.41. The highest agreement on exposure to micro-transaction prompts was the moment a player opened the app, they

popped an ad for the new collection.

Table 6 shows that the respondents mostly agreed that the impact of time-limited offers influences players' towards engaging in micro-transactions, with an overall mean of 3.76. The highest agreement on time-limited offers was that time-limited offers make a player feel like they might miss out if they don't buy

Table 7 shows that the respondents mostly agreed that tipping points influence players' to engage in micro-transactions, with an overall mean of 3.55. The highest agreement on a tipping point was that being able to try on a premium item/skin increases the chances of players' purchasing the item.

Table 8 shows that the respondents mostly strongly

Table 5: Exposure to Micro-transaction Prompts

Exposure to Microtransaction Prompts	Mean	Standard Deviation	Interpretation
I often see pop-ups that encourage me to buy items/currency.	3.52	1.06	Agree
The moment I open the app, they pop an ad for the new collection.	3.78	1.06	Agree
The game repeatedly reminds me about shop items, bundles, or top-ups.	3.52	1.16	Agree
Seeing frequent microtransaction prompts increases my urge to purchase.	3.07	1.12	Neutral
I'm frequently prompted to "recharge" my game currency when my balance is low.	3.13	1.19	Neutral
Overall Mean	3.41	1.15	Agree

Table 6: Time-Limited Offers

Time-Limited Offers	Mean	Standard Deviation	Interpretation
Time-limited offers make me feel like I might miss out if I don't buy.	4.1	1.08	Strongly Agree
I bought/ I almost buy because the offer was time-limited.	3.6	1.06	Agree
I have the urge to buy when there is a bundle offer for a short time.	4.05	1.07	Strongly Agree
I buy limited-time offers because they are exclusive and rare.	3.75	1.16	Agree
I impulse buy because the offer was time limited.	3.55	1.26	Agree
I spend money on seasonal items that I wouldn't buy during the rest of the year.	3.5	1.14	Agree
Overall Mean	3.76	1.13	Agree

Table 7: Tipping-Point

Tipping-Point	Mean	Standard Deviation	Interpretation
I would rather save time than grind.	3.45	0.95	Agree
I have the urge to spend when my friends are also spending.	3.52	1.02	Agree
I feel pressured when I see a countdown timer attached to an item I want hence making me buy the item.	3.42	1.10	Agree
I feel pressured to spend when my enemy has better items.	3.38	1.15	Neutral
I feel sense of regret if I miss out on time-limited cosmetic/weapon item.	3.65	0.88	Agree
Seeing high-ranking players or streamers use a specific item that pushed me to buy it.	3.58	0.98	Agree
I have made a purchase because I didn't want to lose my progress or earned rewards.	3.55	1.2	Agree
Being able to try on a premium item/skin increases the chances of me purchasing the item.	3.84	0.85	Agree
Overall Mean	3.55	1.02	Agree

Table 8: Game Satisfaction

Game Satisfaction	Mean	Standard Deviation	Interpretation
I enjoy the game so much more after buying upgrades, skins, or characters in the game.	4.30	0.85	Strongly Agree
I enjoy the game without spending money.	4.18	0.88	Agree
I feel that the game intentionally makes the free experience boring to force me into making a purchase.	4.22	0.90	Strongly Agree

I feel frustrated when I lose to a player who has clearly spent more.	4.10	0.95	Agree
I believe that spending money makes the gameplay experience less time consuming and more enjoyable.	4.25	0.87	Strongly Agree
I am satisfied with the amount of free content provided without the need for microtran-sactions.	4.28	0.82	Strongly Agree
I feel that the "drop rates" in the game's gacha system is unfair and misleading.	4.15	0.9	Agree
Overall Mean	4.21	0.88	Strongly Agree

agreed that gaming satisfaction influences players' spending behavior among non-spender, casual spenders and whales, with an overall mean of 4.21. The highest agreement on gaming satisfaction was that players' enjoy the game so much more after buying upgrades, skins, or characters in the game

Discussion

Demographic Characteristics of Respondents

This study investigates the demographic profile of participants and their gaming behaviors in Metro Manila, Philippines. The results shown in Table 1.1 indicate that all respondents with the percentage of 100% reside in Metro Manila, with a frequency of 219 out of 219 respondents. This shows that the study has successfully reached its target research location set by the researchers. The use of purposive sampling is due to the selection of respondents based on their location and accessibility.

Age Distribution of Respondents

The results presented in Table 1.2 is that the majority of the respondents fall within the age group of 16-20 years old with the percentage of 43.4%, followed by the age group of 21-25 years old (32.9%), 26-30 years old (16%), 31-35 years old with 7.8%, and lastly 36-40 years old with 0% as there were no respondents within that age group. This represents that younger age groups are more active in gaming and making them more familiar with micro-transactions and digital purchases.

Three Categories of Respondents

Table 2 shows that most respondents are in the Casual Spenders category with 74%, followed by Non-Spenders at 21% and the smallest group, Whales, make up 5%. This distribution of respondents indicates that most players, which are Casual Spenders, occasionally engage in micro-transaction and not spend more than ₱10,000+ in over 6 months. It suggests that micro-transaction are widely experienced among players. Furthermore, many players only spend when necessary or influenced by other players and/or in-game factors. However, a significant number of players that fall into the Non-Spenders category still choose not to buy anything. This suggests that they only rely on the basic design of the game, while Whales gathered 5% of the respondents who frequently spend a large amount of money on games. Overall, these categories highlight the different spending behaviors of

players and show that micro-transaction methods are most effective for Casual Spenders.

These categories show the spending behavior of players and how these groups react differently to micro-transaction methods that were designed to appeal to these types of players that are most effective among casual spenders.

Table 4 To what extent do gaming experience factors influence players' spending behavior?

Table 4 shows that gaming experience factors moderately influence players' spending behavior, with an overall mean of 3.44 shows that respondents generally agree. Players feel that upgrades and faster progress creates advantages to motivate spenders to motivate purchases. Although some statements like difficulty progressing without purchases, received neutral responses, suggesting that not all players feel pressured to spend. The moderate standard deviation (1.14) indicates differing perceptions among respondents.

Table 5 To what extent do gaming experience factors influence players' spending behavior?

Table 5 shows an overall mean of 3.41 (Agree) implies players often encounter micro-transaction prompts while in the game such as pop-ups, reminders and bundle offers are commonly used to encourage players to purchase items and currency, however, these methods affect players differently. Others remain neutral,with the standard deviation of 1.15, this also implies that micro-transactions prompts are common in gaming but it varies among players.

Table 6 and Table 7 The impact of time-limited offers influences players' tipping point towards engaging in micro-transactions.

Table 6 and Table 7 shows the interpretation for the responses regarding time-limited offers and its effect on players' tipping and spending behavior with an overall mean of 3.76 (Agree). Time-limited items and their rarity push players to purchase, this suggests that these marketing strategies are effective to players, however, some players are less affected as seen in the standard deviation of 1.13.

Table 8 The influence of players' spending behavior on gameplay satisfaction among non-spender, casual spenders and whales.

Table 8 shows the relationship between the players' spending behavior and gaming satisfaction is relatively high with an overall mean of 4.21 (Strongly Agree). This

suggests that after making purchases, it can positively impact players' enjoyment of the game. The low standard deviation of 0.88 reflects that the respondents' opinion share a common and consistent perception on this relationship.

Influence of Gaming Experience Factors towards Players' Spending Behavior

This study investigated whether gaming experience factors influence players' spending behavior. The result showed an overall mean of 3.44 and a standard deviation of 1.14, implying that the respondents generally agreed with its influence. Statements from the survey such as "The upgrades will help me level up my characters to win" gained a mean of 3.90 and "Buying upgrades will make my progress faster" received an agreement of 3.70, indicates that players' perception of microtransactions as a way to advance their performance and progress in the game. The respondents also agreed with the statement that, "Spenders have an advantage over non-spenders" which supports the previous study of Watola, S, *et al.* (2025), while Subarkah *et al.* (2023) stated that social interaction increases purchasing intention, however, some respondents were neutral and not strongly influenced by purchasing to "keep up with friends" (3.04) and "difficulty progressing without purchasing anything" (0.99). These findings are consistent from previous studies of Construcasa (2025) and Hietamäki, V., (2025) which suggest that these gaming experiences influence the players to engage in micro-transactions. Overall, the findings support Hypothesis 1, validating that gaming experience factors have a significant influence on players' spending behavior.

Impact of Frequent Exposure of Players to Micro-Transaction Prompts During Gameplay

The results validated Hypothesis 2 as the respondents agree that they are frequently exposed to these prompts with an overall mean of 3.41 and a standard deviation of 1.15. The data showed that the respondents encounter micro-transaction prompts such as pop-ups the moment they open the app (3.78) and announcement bundle offers, items and top-ups (3.52). Some respondents have an underwhelming impact on prompts like recharging the game currency with a mean of 3.13 and urge to purchase after seeing frequent prompts were neutral (3.07). This suggests that players' exposure to micro-transaction prompts are high, but its effectiveness varies between players.

The results validate Hypothesis 2 while being consistent with other previous studies from Byrne & Lee (2023) and Rita *et al.* (2024), which suggests that gaming systems and micro-transactions have a connection in between. Overall, this result reveals that players often experience being exposed to micro-transactions the most when they open the game, but it affects the players' spending behavior differently.

The Impact of Time-Limited Offers in Influencing Players' Tipping Point Towards Micro-transactions

The results of table 3.3 reveal that Hypothesis 3 is validated. It confirms that time-limited offers significantly influence the players' purchasing decisions with an overall mean of 3.76 and a standard deviation of 1.13. Statements that received a strong agreement between respondents were the feeling of missing out (4.10) and urge to buy when items are only available for a short amount of time (4.05). Participants agreed that sometimes they buy on impulse because the offer is time-limited, which triggers the psychological factor of missing out (3.55) and spending money on seasonal items (3.50). These findings are consistent with the previous study of Mahendra *et al.* (2025), emotional triggers and gamification increase impulsive buying behavior. Taufiq & Sobari (2023) also adds that players' purchasing decisions are influenced by the perceived value of the virtual items. Overall, these findings confirm that time-limited offers and psychological fear of missing out significantly influence the players' tipping point towards micro-transactions.

The impact of Players' Spending Behavior on Gameplay Satisfaction

The results of Table 8 reveal that respondents strongly agree that engaging in micro-transactions influences their gaming satisfaction with an overall mean of 4.21 and a standard deviation of 0.88. Respondents also strongly agreed that after purchasing in-game positively impacted their gameplay satisfaction (4.30) and they also find it more enjoyable due to taking less time working to achieve or acquire something (4.25). However, some respondents agree that games are enjoyable without spending money (4.18) which supports the previous study of Liberty (2025) stating that non-spenders tend to value challenge and mastery. This suggests that players can be satisfied with its basic game system. On the other hand, there were statements that negatively impacted the respondents' experience where players felt that the games were too boring and pushed them into making a purchase (4.22). Another issue was the unfairness of the gacha system's drop rates (4.15). Overall, Hypothesis 4 is validated with the confirmation that players' spending behavior significantly influences their gaming satisfaction, both positively and negatively. These findings are also consistent using studies of Costes & Bonnaire (2022), which state that spenders experience immediate satisfaction from purchases, and Ascarza *et al.* (2025), which found that spending behavior varies depending on game design.

CONCLUSION

The study, coercive microtransactions have a big impact on players' purchasing habits in a variety of player categories. Fear of missing out (FOMO), time-limited offers, and frequent in-game reminders all have a significant impact on players' purchase decisions by raising perceived

value and establishing a sense of urgency to the players. Through quicker advancement, a competitive edge, and ease of use, these tactics improve gaming. Their effects are inconsistent, though, because some players find them unfair or annoying, particularly when they are connected to social comparison or game difficulty. In general, micro-transactions affect player happiness in both positive and negative ways. While they can increase enjoyment, they can also lead to imbalance and dissatisfaction in the gaming experience for the players.

Recommendations

Developer should focus on affordable and valuable micro-transactions that cater to casual gamers should be prioritized since they form the bulk of players. Contextual and personalized pop-ups should be used rather than repeated advertisements to provide a good experience for the users. Even though Fear Of Missing Out (FOMO) is an efficient strategy, including time-out features, clear gacha drop rates, and pity systems could help with fairness and reduce the frustration among players. It would be wise to balance vertical progressions with horizontal progressions as well.

Acknowledgements

We are deeply grateful to the many individuals who have contributed to the successful completion of this Research paper.

First and foremost, we would like to express our sincere gratitude to Dr. Edelfin Tan and Ms. Erika Bacay for their invaluable guidance, expertise, and encouragement throughout this endeavor.

We also wish to extend our heartfelt thanks to Far Eastern University Roosevelt Marikina for providing the necessary resources and support, without which this Research paper would not have been possible.

We are also deeply thankful to our family, Mr. Docot, Ms. Lopez, Ms. Enriquez, Mr. Bobes, Mrs. Bobes, Mr. Querubin and friends, whose unwavering support and understanding gave us the strength to persevere. Their encouragement has been a constant source of motivation.

REFERENCES

- Bacay, E. F., Paculan, K. M. I., Salvatierra, E. D. C., Suegay, R. V. E., & Tenerife, R. A. P. (2025). The Effect of Fake Gaming Ads and Gameplay as a Marketing Strategy to Attract Online Game Players. *American Journal of Economics and Business Innovation*, 4(2), 122-130. <https://doi.org/10.54536/ajebi.v4i2.4966>
- Bhinder, Z. (2025). The Freemium Economy: An Analysis of Consumer Spending in Free-to-Play Gaming. *International Journal of Social Relevance & Concern*, 13(12), 5-19. <https://doi.org/10.26821/ijsrc.13.12.2025.131203>
- Caetano, R. G., Guerreiro, J., Rita, P., & Ramos, R. (2024). The role of microtransactions in impulse buying and purchase intention in the video game market. *Entertainment Computing*, 50, 100693. <https://doi.org/10.1016/j.entcom.2024.100693>
- Calado, F., Harris, A., Gibson, E., & Griffiths, M. D. (2023). Videogame player experiences with micro-transactions: An interpretative phenomenological analysis. *Computers in Human Behavior*, 145, 107766. <https://doi.org/10.1016/j.chb.2023.107766>
- Cañamo, G. A. D., Lantaco, T. N. G., Omblerio, H. D., & Culajara, C. L. (2024). Influence of Mobile Online Battle Arena (MOBA) Addiction on Psychological Discomfort. *American Journal of Human Psychology*, 2(1), 104-113. <https://doi.org/10.54536/ajhp.v2i1.2840>
- Çetiner, B., & Çalışkan, A. (2025). Motivators affecting Pokemon Go players' In-Game purchase intentions using microtransactions. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 25(1), 295-314. <https://doi.org/10.18037/ausbd.1554425>
- Construcasa. (2025, September 28). *How Video Games Influence Consumer Spending Habits*. Construcasa. <https://construcasa.com.py/how-video-games-influence-consumer-spending-habits/>
- Costes, J., & Bonnaire, C. (2022). Spending money in Free-to-Play Games: Sociodemographic characteristics, motives, impulsivity and internet Gaming disorder specificities. *International Journal of Environmental Research and Public Health*, 19(23), 15709. <https://doi.org/10.3390/ijerph192315709>
- Cura, R. A. J., De Guzman, J. L., De Jesus, C. K., Dela Cruz, A., Ingalla, R. M., Koga, M. S. B., Lacabe, L., N. ., Roldan, J. C., Roldan, J. C., & S. P., S. (2024). The effects of in-game purchases on students' spending habits. <http://ijeais.org/wp-content/uploads/2022/1/IJAMR220112.pdf>
- Gattiker, C., Haunso, J., Villegas, M., & Sen, C. (2025, September 24). *Video games: How a niche industry has become a growing playing field for investors*. Julius Baer. <https://11nq.com/5pnuucp>
- Gibson, E., Griffiths, M. D., Calado, F., & Harris, A. (2024). The role of Videogame Micro-Transactions in the relationship between motivations, problem gaming, and problem gambling. *Journal of Gambling Studies*, 41(3), 1087-1118. <https://doi.org/10.1007/s10899-024-10365-9>
- Han, F., Strzelecki, A., & Watola, S. (2025). The antecedents of players' financial commitment to make microtransactions in free-to-play games. *Future Business Journal*, 11(1). <https://doi.org/10.1186/s43093-025-00700-w>
- Hartanto, A., & Kasturiratna, K. (2024). Longitudinal Bidirectional relation between fear of missing out and risky loot box consumption: Evidence for FOMO-Driven loot boxes spiral hypothesis. *Computers in Human Behavior Reports*, 16, 100535. <https://doi.org/10.1016/j.chbr.2024.100535>
- Hietamäki, V. (2024). Pay-to-Win Loot Boxes and Their Impact on Players' Experience. UTUPub. https://www.utupub.fi/bitstream/handle/10024/179955/Hietamaki_Ville_opinnyte.pdf?sequence=1&isAllowed=y

- <https://doi.org/10.3390/jtaer21020069>
- Jaimes, R. (2025). *In-Game Purchase Spending Habits*. Quantumrun Foresight. <https://11nq.com/w3zpkkm>
- Jiang, S., & Zhao, L. (2026). When Time meets Scarcity: Differentiated effects of promotional restrictions on consumer value in live commerce. *Journal of Theoretical and Applied Electronic Commerce Research*, 21(2), 69.
- Lee, G. K. S. (2025). In-App purchase behaviour and game design in Mobile Gaming: A review of monetisation and player experience. *International Journal of Mobile Applications and Technologies*, 1(1). <https://doi.org/10.51137/wrp.ijmat.2025.glit.45789>
- Leynes, R. C. J., & Isip, M. I. G. (2024). Modeling the influence of character customization with cosmetic microtransaction on purchasing intention in mobile massive multiplayer online role-playing games (MMORPGs). *UP Los Baños Journal*, 22(1), 94–119. <https://www.ukdr.uplb.edu.ph/cgi/viewcontent.cgi?article=7078&context=journal-articles>
- Liberty, S. (2025). *Paying the Price: The Ethical Crisis in Freemium Game Design*. Medium. <https://medium.com/design-bootcamp/paying-the-price-the-ethical-crisis-in-freemium-game-design-9637d18baa23>
- Madepo, M. A. (2026). Monetization models in mobile Gaming: Analyzing user preferences and willingness to pay among Indonesian players. *Journal Mobile Technologies (JMS)*, 4(1), 10–24. <https://doi.org/10.59431/jms.v4i1.708>
- Mahendra, F. A., Jayadi, R., & Oktavia, T. (2025). What drives impulsive buying in video game microtransactions? A structural equation modeling study of Indonesian gamers. *Journal of Theoretical and Applied Information Technology*, 103(15), 5623–5638. <https://www.jatit.org/volumes/Vol103No15/15Vol103No15.pdf>
- Putratama, D., & Retnowardhani, A. (2025). An Empirical study of In-App purchase intention Behavior of Generation Z in mobile games. *Journal of Information Systems Engineering and Business Intelligence*, 11(3), 433–444. <https://doi.org/10.20473/jisebi.11.3.433-444>
- Subarkah, W. P., Santoso, A., & Widhianingrum, W. (2023). A Study of Player Behavior and Social Influences to Purchase Intention Mobile Legends: Bang Bang In-Game item. *Journal of Entrepreneur & Business*, 4(3), 138–158. <https://doi.org/10.24123/jeb.v4i3.5639>
- Taufiq, M. F., & Sobari, N. (2023). Driving factors of loot box impulse purchases on Indonesian FPS and MOBA Generation Z players. *Al Qalam Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 17(5), 3568. <https://doi.org/10.35931/aq.v17i5.2309>
- Wibowo, R., & Lumbanraja, F. (2022). A qualitative analysis of micro-transaction and consumer behavior of online games: Case study PUBG Mobile. *EMBA Journal*, 10(3), 45–58. <https://ejournal.unsrat.ac.id/v3/index.php/emba/article/download/43815/40088>