International Journal of Innovations & Research Analysis (IJIRA)
ISSN :2583-0295, Impact Factor: 6.238, Volume 04, No. 04(I), October- December, 2024, pp 71-81

FACTORS INFLUENCING THE PURCHASE INTENTION OF MICRO TRANSACTIONS IN FREEMIUM MOBILE GAMES IN BANGKOK: A CASE OF HONKAI STAR RAIL

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ABSTRACT

Purpose: *The purpose of this research is to determine the significant influence of Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price Value, and Game Satisfaction towards purchase intention of microtransactions in freemium mobile games in Bangkok in the case of Honkai: Star Rail. Understanding these influencing factors can help game developers and stakeholders gain valuable insights into player behavior and develop monetization strategies to maximize positive player experiences and revenue.*

Design/methodology/approach: *This research uses primary and secondary data collection methods in addition to descriptive and inferential data analysis techniques to analyze the factors influencing the purchase intention of microtransactions in freemium mobile games. The data was collected from 396 respondents who live in Bangkok, have played Honkai: Star Rail on a smartphone, and have the intention to purchase microtransactions in Honkai: Star Rail. This research referenced twelve theoretical frameworks from previous studies to construct a conceptual framework.*

Findings: *This research shows that Performance Expectancy, Hedonic Motivation, and Game Satisfaction have a significant influence on the purchase intention of microtransactions in freemium mobile games in Bangkok in the case of Honkai: Star Rail.*

Research limitations/implications: *Because of the chosen research approach, the research results may lack generalizability. Therefore, researchers are encouraged to test the proposed propositions further.*

Practical implications: *This research offers valuable insights for game developers and stakeholders to enhance monetization strategies for freemium games like Honkai: Star Rail.*

Social implications: *This research highlights the growing influence of mobile gaming on consumer behavior. This has broader implications for discussions around digital consumption, addictive behaviors, and the ethics of in-game purchases, prompting stakeholders to consider responsible game design and marketing practices that prioritize player well-being while maximizing revenue.*

Originality/value: *This paper fulfils an identified need to study the factors influencing microtransaction purchase intentions within the Bangkok market..*

Keywords: *Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price Value.*

Introduction

The mobile game market has become a prevalent force in the gaming and entertainment industries. Since 1950, video games have come in many forms and are playable on many media platforms, such as personal computers, mobile phones, and video game consoles such as Microsoft Xbox, Sony PlayStation, and Nintendo Switch (Firdaus & Rahadi, 2021).

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In 2023, GlobalData's (2024) report shows that the mobile gaming market has a revenue of $124 billion and is projected to grow to $195 billion by 2030. The number of people playing mobile games worldwide has reached a staggering 1.67 billion users (Knight, 2024). A survey by Rakuen Insight found that 82.8% of respondents aged 16 to 24 in Thailand play online games, 92% of them play on mobile phones, and that the most popular online game genre is role-playing games. Furthermore, around 31.5 million people in Thailand are gamers who play games through mobile devices (Allcorrect, 2023). The Android platform dominates the mobile market in Thailand. As of April 2024, Google's Android occupies over two-thirds of the mobile operating system market in Thailand. Meanwhile, Apple's iOS occupied most of the remaining market share in Thailand in that same month (Statista, 2024).

There are four business models that are commonly used in the mobile game industry. These models are premium or paid apps, subscriptions, in-app advertisements, in-app purchases, or the freemium model (Wappier, 2023). Nowadays, the freemium model is the most frequently used business model in mobile games (Müller et al., 2011). Apple (n.d.) described freemium games as games that players can download and play at zero cost with in-app purchases that can supplement their gaming experience. Aslanbas (2023) mentioned that the freemium model originated from the words free and premium. In this model, games are free-to-play, and players have the option to purchase features or additional content within the game, known as in-app purchases. These in-app purchases are also called microtransactions (AppsFlyer, 2023).

According to Firdaus and Rahadi (2021), the sale of in-game items is the main revenue source for game developers in a freemium game. The freemium business model is a model where players can play the core game for free but are offered in-game items and premium services to generate profit for developers (Hamari, Hanner, &Koivisto, 2017). Therefore, understanding the factors influencing players' purchase intentions for microtransactions is crucial for game developers in the freemium mobile game market. This study aims to explore the factors that influence players in Bangkok, Thailand, to spend money on microtransactions within the context of Honkai: Star Rail, the 2023 Game of the Year chosen by both Apple and Google (Apple, 2023; Google, 2023).

Honkai: Star Rail is a role-playing game that was launched on April 26, 2023 (Honkai: Star Rail, 2023). It quickly rose to the highest grossing freemium mobile game of the month, generating a revenue of $208.9 million worldwide in May 2023 (Pocket Gamer.biz, 2023). BlueStacks(2023) mentioned that Honkai: Star Rail reached the $1 billion revenue mark by August 2023. Honkai: Star Rail serves as a compelling case study due to its immense popularity and status as a recent release, offering valuable insights into player behavior within the freemium mobile game market of Bangkok. Furthermore, this study can provide improvement recommendations for the mobile game monetization strategy of the case game, Honkai: Star Rail (Goncharova, 2017).

Literature Review

This research adopts variables from the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model (Venkatesh et al., 2012). The UTAUT2 model uses variables such as performance expectancy, effort expectancy, social influence, and hedonic motivation to determine the behavioral intention to use technology (Ouédraogo et al., 2024). The UTAUT2 model is created to better fit the model for a hedonic technology context, unlike the original UTAUT model by Venkatesh et al. (2003), which was created to explain user intentions to use technology in a more utilitarian way (Firdaus &Rahadi, 2021).

- **Performance Expectancy**

Performance expectancy refers to individuals' beliefs about a technology's usefulness in performing certain activities (Venkatesh et al., 2012; Ul-Ain et al., 2015). In the microtransaction context, Firdaus and Rahadi (2021) stated that this refers to the individuals' beliefs that by purchasing in-game items, they have the potential to enhance their game performance compared to previous levels. Ericska et al. (2022) have found that performance expectancy has a significant influence on purchase intention in freemium online mobile games. In Honkai: Star Rail, these in-game items can be power up items that can increase a character's power or items that can unlock new characters that can make an in-game team stronger.

- **Effort Expectancy**

Effort expectancy refers to the ease with which an individual can use or master the system (Venkatesh et al., 2003; Venkatesh et al., 2012). In the microtransaction context, it describes players' perceptions of how easy it is to make in-game purchases in mobile games. Ericska et al. (2022) have found that effort expectancy has a significant influence on purchase intention in freemium online mobile

games. Guo and Barnes' (2011) study in the virtual world of Second Life found that effort expectancy has a positive effect on purchase intention. In Honkai: Star Rail, the expected effort can include the accessibility of the user interface through which microtransactions can be purchased and how simple the process of making a microtransaction is.

- **Social Influence**

Venkatesh et al. (2012) stated that social influence refers to the degree to which individuals perceive that significant others, such as family and friends, believe they should use a particular technology. In the microtransaction context, it can relate to how other players in the mobile game influence a consumer's decision to make in-game purchases. Previous studies show mixed results regarding the impact of social influences on in-game purchases of virtual items. Firdaus and Rahadi (2021) mentioned that in games where multiplayer interaction is a priority, social influence could significantly impact a player's decision to purchase the game. Hamari (2015) found that social influence strongly affects the purchase intention of virtual items, while Guo and Barnes (2011) discovered a negative association. The impact of social influence on purchase intention may vary across different types of games, depending on their design. In Honkai: Star Rail, social influence can occur when a consumer observes another player with a more powerful in-game character, thereby being influenced to make microtransaction purchases.

- **Hedonic Motivation**

Hedonic motivation refers to the fun or pleasure that individuals obtain from using a technology (Venkatesh et al., 2012; Ul-Ain et al., 2015). Some previous studies measured the construct of hedonic motivation using the terms enjoyment or playfulness. (Guo & Barnes, 2011; Mäntymäki& Salo, 2013; Han & Windsor, 2013). In the microtransaction context, it is the extent to which players derive enjoyment from the activity and items acquired through in-game purchases in mobile games. Wong et al. (2024) stated that games are often played for enjoyment, amusement, gratification, and pleasure. Players' expectations regarding their online gaming experiences represent a type of satisfying entertainment. The results of the studies by Mäntymäki and Salo (2013) and Han and Windsor (2013) demonstrate that hedonic motivation influences purchase intention in online mobile games. In Honkai: Star Rail, hedonic motivation can occur when players use rare or powerful in-game items or characters during a trial period, experiencing heightened enjoyment and satisfaction as they achieve success and progress within the game. This experience incentivizes a player to purchase microtransactions and acquire the rare or powerful in-game items or characters they have tried out.

- **Price Value**

Price value refers to the exchange between the benefits users gain and the costs incurred in acquiring or using the technology (Firdaus &Rahadi, 2021). Venkatesh et al. (2012) stated that when the perceived benefits of using a technology outweigh its monetary cost, the price value is considered positive. Such a positive price value significantly influences intention. Hsiao and Chen (2016) describe price value as good price and found a positive relationship between good price and purchase intention among both paying and non-paying players in mobile games. In the microtransaction context, price value is the assessment of the benefits derived from the purchased virtual items in relation to their monetary cost. In Honkai: Star Rail, players can perceive a positive price value when the benefits gained from purchasing virtual items outweigh the associated monetary costs.

- **Game Satisfaction**

Game satisfaction refers to individuals' enjoyment of the overall experience they derive from playing mobile games. Firdaus and Rahadi (2021) mentioned that it is the enjoyment experienced by users from the overall gaming experience they receive while playing mobile games. Studies by Guo and Barnes (2011) and Hsiao and Chen (2016) found a positive association between game satisfaction and purchase intention. In Honkai: Star Rail, game satisfaction can be derived from the enjoyment of the game's graphics, story, and gameplay mechanics.

- **Purchase Intention**

Purchase intention is derived from behavioral intention, which refers to individuals' inclination to utilize a specific technology for various purposes (Venkatesh et al., 2003; Venkatesh et al., 2012; Ul-Ain et al., 2015). In this research's context, purchase intention is the extent of individuals' commitment to engaging in microtransaction purchases. The purpose of this research is to determine the significant influence of performance expectancy, effort expectancy, social influence, hedonic motivation, price value, and game satisfaction on the purchase intention of microtransactions in freemium mobile games in Bangkok in the case of Honkai: Star Rail.

Research Framework and Methodology

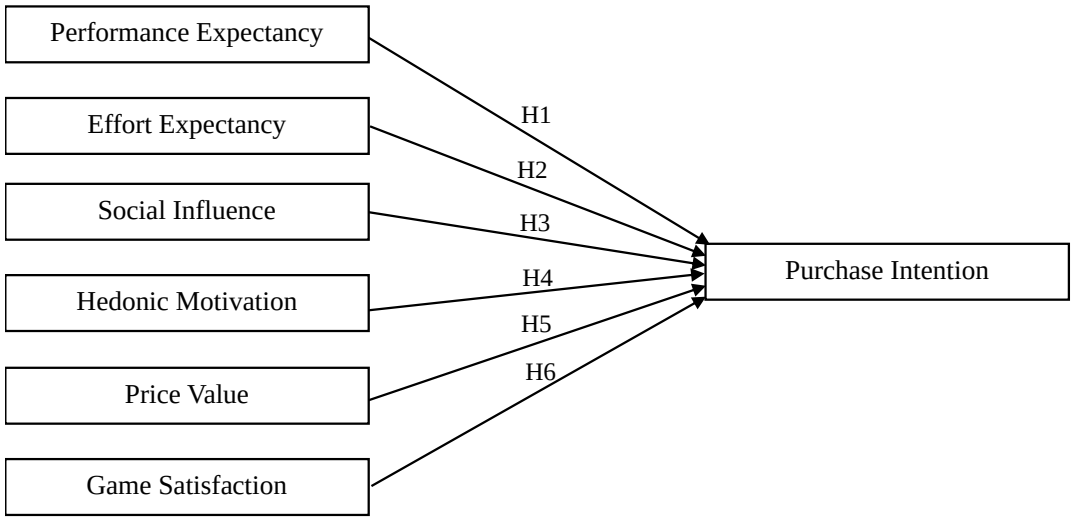
- **Research Methodology**

This study explores the factors influencing the purchase intention of microtransactions in freemium mobile games in Bangkok. The researcher chose Honkai: Star Rail as a case study to provide a deeper understanding of consumer behavior in this specific market. A quantitative approach is employed, utilizing data collected through both primary and secondary sources. Online questionnaires are used as the primary data collection tool, and secondary data sources such as books, academic journals, previous studies, online articles, and online statistical data are used as reference materials for this research. The online questionnaire, disseminated through an online platform called "Google Form," incorporated screening questions to ensure respondents met the study's inclusion criteria and contributed data relevant to the research objectives. Cronbach's alpha is utilized for the internal consistency reliability test, and multiple linear regression is used to examine and prove a significant relationship between six factors in the purchase intention of microtransactions in freemium mobile games. The collected data are analyzed through statistical analysis software.

- **Research Framework**

The conceptual framework of this study is derived from literature reviews and the theoretical framework of previous research. The model includes the independent variables performance expectancy, effort expectancy, social influence, hedonic motivation, price value, and game satisfaction as factors influencing the dependent variable purchase intention.

Figure 1: Conceptual framework



Source: Figure by author

Research Hypothesis

From the conceptual framework, the hypotheses for investigating variables are as follows:

H_1: Performance expectancy has a significant influence on purchase intention.

H_2: Effort expectancy has a significant influence on purchase intention.

H_3: Social influence has a significant influence on purchase intention.

H_4: Hedonic motivation has a significant influence on purchase intention.

H_5: Price value has a significant influence on purchase intention.

H_6: Game satisfaction has a significant influence on purchase intention.

- **Target Population, Sample, Sample Size, and Sampling Technique**

The target population of this research are individuals living in Bangkok who have played Honkai: Star Rail through a smartphone. The Bangkok Post (2024) reported that a study discovered that only 40% of Thai respondents identify as gamers. Meanwhile, Khaosod (2020) stated that four out of five Thais are gamers. Due to the dynamic nature of mobile gaming habits, obtaining a precise count of

individuals who play Honkai: Star Rail in Bangkok is challenging. To ensure the generalizability of the findings, a representative sample will be drawn from the Bangkok population using appropriate sampling techniques.

According to Macrotrends (2024), the projected population of Bangkok in 2024 is 11,234,000, encompassing urban, suburban, and rural residents across its fifty administrative districts. Since there are limitations in knowing the exact population, this research utilizes Cochran's formula at a 95% confidence level to determine the sample size from the Bangkok population (Cochran, 1977). According to the calculation, the sample size for this research is 385 respondents living in Bangkok. Due to time constraints and the ease of online questionnaire distribution, a non-probability sampling approach was chosen. Specifically, convenience sampling was employed for initial recruitment, followed by snowball sampling to leverage participants' referrals and access a wider target audience.

Research Instrument

This research utilized an online questionnaire as the primary data collection tool. The questionnaire is comprised of three sections, totaling forty-five questions. All questions directly align with the seven variables identified in the research framework. There are three screening questions, seven demographic profiling questions, and thirty-five questions for variable measurement.The final section employs a five-point Likert scale, ranging from 1 (strongly disagree) to 3 (neutral or uncertain) to 5 (strongly agree). Respondents leverage their personal opinions, viewpoints, and past experiences with freemium mobile games, specifically Honkai: Star Rail, in Bangkok to rate their level of agreement with statements related to factors influencing microtransaction purchase intention.

To ensure the internal consistency of our questionnaire, a pilot test was conducted with a sample of 30 participants. Cronbach's Alpha Coefficient was employed to assess the interrelatedness of the questionnaire items. Subsequently, multiple linear regression analysis was utilized to examine the relationships between the six independent variables and the dependent variable. Additionally, this research incorporates secondary data sourced from credible academic journals, books, online databases, and reputable online articles.

Reliability Test (Pilot Test)

The researcher conducted an internal consistency and reliability test by selecting a group of 30 respondents to participate in a pilot test. The aim of this test is to determine how closely a set of questions in the questionnaire are related to each other as a group.

The researcher has opted to use Cronbach's Alpha as the technique for conducting the reliability test. Cronbach's Alpha, developed by Cronbach (1951), measures the internal consistency of a test. It is represented by a value ranging from 0 to 1. Internal consistency refers to the degree to which all items in a test measure the same concept or construct, and it is thus related to the interrelatedness of the items within the test (Tavakol& Dennick, 2011). According to Taber (2018),values above 0.6 are considered acceptable for a pilot test with a small amount of data. The results of the pilot test are as follows:

Table 1: Consistency of the Scale Test

Variable	Number of Items	Cronbach's Alpha	Strength of Association
Performance Expectancy (PE)	5	0.800	Good
Effort Expectancy (EE)	5	0.649	Acceptable
Social Influence (SI)	5	0.803	Good
Hedonic Motivation (HM)	5	0.611	Acceptable
Price Value (PV)	5	0.904	Excellent
Game Satisfaction (GS)	5	0.646	Acceptable
Purchase Intention (PI)	5	0.805	Good

Source: Table by author

The pilot test found that the Cronbach's Alpha coefficients for the variables Performance Expectancy (PE), Social Influence (SI), Price Value (PV), and Purchase Intention (PI) were equal to or greater than 0.8, indicating good to excellent internal consistency for the questions related to these variables. Meanwhile, the Cronbach's Alpha coefficients for the variables Effort Expectancy (EE), Hedonic Motivation (HM), and Game Satisfaction (GS) were greater than 0.6 and lower than 0.8, indicating acceptable internal consistency for the questions related to these variables (Taber, 2018).

Data Analysis

In this research, a comprehensive examination and analysis of the collected data were conducted. The researcher presents their findings by highlighting patterns and trends within the collected data. Using quantitative evidence, they employ descriptive and inferential data analysis techniques to interpret the information gathered during the study.

This descriptive analysis is based on primary data collected from the questionnaire distributed online by the researcher. The analysis is performed on the demographic information provided by the respondents, enabling the researcher to conduct a thorough demographic profiling of the received data. Multiple linear regression, an inferential data analysis technique, was utilized to investigate the influence of the six independent variables (Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price Value, and Game Satisfaction) on the dependent variable, Purchase Intention.

Results and Discussions

The emphasis moves to a comprehensive examination and analysis of the collected data. The researcher presents their findings by highlighting the patterns and trends within the data. Using quantitative evidence, the researcher applies descriptive and inferential data analysis techniques to decode and interpret the information gathered during the study. The software JAMOVI was utilized to aid in data analysis, including the descriptive analysis of demographic data from the questionnaire and inferential analysis through multiple linear regression on the measured variables.

Demographic Profiling Summary

This descriptive analysis is derived from primary data collected via an online questionnaire distributed by the researcher. Data was gathered from 396 valid respondents, exceeding the sample size by 2.86%. The researcher included seven questions to obtain demographic information, providing insight into the basic characteristics of the respondents. The demographic factors considered by this study include age, gender, household number, monthly income, play frequency, smartphone platform, and the most important factor. The demographic information of the 396 respondents is as follows:

Table 2: Result of Demographic Analysis

Demographic Factors		Frequency	Percentage (%)
Age			
	18-24 years	173	43.7
	25-34 years	135	34.1
	35-44 years	45	11.4
	45-54 years	29	7.3
	Over 55 years	14	3.5
Gender			
	Male	188	47.5
	Female	167	42.2
	Other	25	6.3
	Rather not disclose	16	4.0
Household Number			
	1 person	65	16.4
	2 people	106	26.8
	3 people	86	21.7
	4 people	73	18.4
	5 or more people	66	16.7
Monthly Income			
	Less than 15,000 Baht	68	17.2
	15,000 to 30,000 Baht	122	30.8
	30,001 to 45,000 Baht	76	19.2
	45,001 to 60,000 Baht	70	17.7
	More than 60,000 Baht	60	15.1
Play Frequency			
	Daily	191	48.2
	Weekly	108	27.3
	Monthly	59	14.9

	Less than once a month	38	9.6
Smartphone Platform			
	iOS	199	50.2
	Android	180	45.5
	Other	17	4.3
Most Important Factor			
	Performance Expectancy	74	18.7
	Effort Expectancy	38	9.5
	Social Influence	64	16.2
	Hedonic Motivation	62	15.7
	Price Value	57	14.4
	Game Satisfaction	101	25.5

Source: Table by author

As seen in Table 2, the majority of respondents are aged 18-24 years (43.7%), followed by 25-34 years (34.1%), 35-44 years (11.4%), 45-54 years (7.3%), and over 55 years (3.5%). 47.5% of respondents are male, 42.2% are female, 6.3% identify as other, and 4.0% prefer not to disclose their gender. The largest group of respondents (26.8%) live in two-person households, followed by 21.7% in three-person households, 18.4% in four-person households, 16.7% in households of five or more, and 16.4% live alone. The highest proportion of respondents (30.8%) earn between 15,000 to 30,000 Baht, followed by 19.2% earning 30,001 to 45,000 Baht, 17.7% earning 45,001 to 60,000 Baht, 17.2% earning less than 15,000 Baht, and 15.1% earning more than 60,000 Baht. 48.2% of respondents play Honkai: Star Rail daily, 27.3% play weekly, 14.9% play monthly, and 9.6% play less than once a month. 50.2% use smartphones on the iOS platform to play Honkai: Star Rail, 45.5% use Android, and 4.3% use other platforms. The most important factors when considering to purchase microtransactions in Honkai: Star Rail for respondents are Game Satisfaction (25.5%), Performance Expectancy (18.7%), Social Influence (16.2%), Hedonic Motivation (15.7%), Price Value (14.4%), and Effort Expectancy (9.5%).

Inferential Analysis

To conduct the hypothesis testing, the researcher utilized multiple linear regression to examine the significant influence of variables such as performance expectancy, effort expectancy, hedonic motivation, and game satisfaction on the purchase intention of microtransactions in Bangkok, using the game Honkai: Star Rail as the case. The table below presents the results, highlighting whether these factors significantly influence the purchase intention of microtransactions in the game.

Table 3: Result of Multiple Linear Regression for H1, H2, H3, H4, H5, and H6

Variable	Standardized Coefficients(β)	P-Value	VIF
Performance Expectancy	0.447	< .001	1.02
Effort Expectancy	0.045	0.175	1.00
Social Influence	0.009	0.797	1.01
Hedonic Motivation	0.396	< .001	1.02
Price Value	-0.059	0.079	1.02
Game Satisfaction	0.371	< .001	1.01
R square	0.572		
Adjusted R square	0.566		

Source: Table by author

Table 3 presents the results of a multiple linear regression analysis conducted on hypotheses H1, H2, H3, H4, H5, and H6. The study reveals that the independent variables Effort Expectancy, Social Influence, and Price Value have no significant influence on purchase intention. H2, H3, and H5 are rejected. In contrast, Performance Expectancy, Hedonic Motivation, and Game Satisfaction are found to have a significant influence on purchase intention due to having a P-Value of below 0.05 (Yaddanapudi, 2016). H1, H4, and H6 are accepted. Based on the Standardized Coefficients, the study determines that among the three positively influencing variables, Performance Expectancy has the greatest influence, followed by Hedonic Motivation, and then Game Satisfaction. The results show an R-square value of 0.572, suggesting that the six independent variables explain 57.2% of the variance in the dependent variable. Lastly, the VIF values for the independent variables are all below the critical threshold of 5.00, indicating that multicollinearity is not a significant issue in this study (James et al., 2013).

Conclusion

The freemium mobile game market has become a dominant force in the entertainment industry. By offering a base game for free, these titles attract a large player base. The key to success through the freemium model then lies in converting a portion of those players into paying customers through strategic in-app purchases, or microtransactions. Understanding the factors that influence players' decisions to spend real money within these freemium games is crucial for developers and marketers to thrive in this competitive landscape. This research takes a step towards that goal by investigating the purchase intention for microtransactions in Honkai: Star Rail, a specific freemium mobile game, among players in Bangkok, Thailand.

This research investigated the factors that influence players in Bangkok, Thailand, to spend money on microtransactions in freemium mobile games within the context of Honkai: Star Rail. Six hypotheses were formulated and tested to explore the influencing factors between the six variables on the purchase intention of microtransactions. The findings reveal that performance expectancy, hedonic motivation, and game satisfaction are significant predictors of purchase intention. Players in Bangkok, like their global counterparts, are more likely to engage in microtransactions if they believe these purchases will enhance their gameplay performance and progression. Additionally, many players intend to purchase microtransactions when motivated by hedonic reasons. The desire for enjoyment and a pleasurable gaming experience significantly influences purchase intention. This suggests that players in Bangkok are motivated by the fun and excitement associated with microtransactions through acquiring in-game items or power-ups. Another finding shows that overall satisfaction with the game positively impacts the likelihood of players engaging in microtransactions. This indicates that a well-designed and enjoyable game experience fosters a stronger willingness to spend.

Discussion

This research identified Performance Expectancy as a significant factor influencing purchase intention. This aligns with previous studies on freemium mobile games. Similar to the results of this research, Ericska et al. (2022) have found that Performance Expectancy has a significant influence on purchase intention in freemium online mobile games and is also the factor that has the strongest impact on a player's decision to buy microtransactions.

On the other hand, research by Mäntymäki and Salo (2013) and Han and Windsor (2013) demonstrate that Hedonic Motivation influences purchase intention in online mobile games. This suggests that the desire for fun and enjoyment can be a significant driver for players to spend money in mobile games, which is similar to our findings on Honkai: Star Rail.

This research identified Game Satisfaction as a significant factor influencing purchase intention in Honkai: Star Rail. Studies by Guo and Barnes (2011) and Hsiao and Chen (2016) found a positive association between Game Satisfaction and purchase intention. The findings of their studies align with the results of this research on freemium mobile games, highlighting the importance of a positive core gameplay experience.

Recommendation

These findings offer valuable insights for game developers and marketers targeting the Bangkok mobile gaming market. These games can focus on performance and progression by highlighting how microtransactions can improve gameplay performance and progression. This can be achieved through clear communication about the benefits associated with in-game purchases and showing players how microtransaction purchases can improve their overall game performance compared to playing without them. The game’s difficulty can be adjusted to the newly released in-game items so that players who purchased them can progress through in-game contents such as game chapters faster. Moreover, games can be designed so that players who have purchased microtransactions can have a clear advantage in terms of completing upcoming game challenges. On top of that, players should have a clear feeling that microtransactions assisted them in defeating stronger enemies and made their team significantly more powerful.

An emphasis on enjoyment can promote the hedonic value of microtransactions. This could involve showcasing how owning characters with attractive appearances and stylish abilities will make a player’s game experience more satisfying. Besides that, games should provide product trials of characters or items so that players can experience the increased power and effectiveness. Additionally, in-game items or characters should be designed around expanding the players’ strategic options, allowing them to develop unique playstyles and approach challenges in an entertaining way.

Furthermore, marketing should include contents that will make players think that the game would be more fun to play if they were to purchase newly-released items or characters. Lastly, the difficulty of challenges can be designed in a purposeful way so that the newly released items or characters have a clear advantage in clearing them, giving players who acquire them a greater sense of accomplishment.

A game should focus on its quality by prioritizing the creation of a satisfying and engaging game experience. A well-designed game fosters a positive perception, which translates into a higher propensity for microtransactions. The researcher recommends game developers focus on designing enjoyable and engaging game mechanics, followed by offering the players a variety of challenges and activities that can keep them engaged over time. To further drive game satisfaction and increase the possibility of players purchasing microtransactions, the game places greater importance on characters and voice acting since the two items significantly contribute to overall enjoyment of the game. Besides that, the researcher recommends the game have well-designed lore and stories to keep players interested and wanting to play more. Finally, the graphics and visual design of the game should be appealing to add to the enjoyment of the game.

Limitation and Future Research

This research acknowledges several limitations that offer opportunities for future research. The investigation focused solely on players in Bangkok, Thailand. Cultural factors and regional spending habits may influence purchase intentions. Expanding the study to other regions and countries would reveal if the identified factors are universal or vary geographically. A comparative analysis across different demographics could provide valuable insights.

Furthermore, this research was conducted within a specific timeframe, limiting the data collection period. This snapshot may not capture seasonal trends or long-term changes in player behavior. A study spanning a longer period could uncover how factors influencing purchase intention evolve over time. This could involve surveying players at launch, after major updates, and during seasonal events.

The data used in this research was collected from smartphone users only, excluding players accessing the game on other devices or methods such as tablets and emulators. These platforms might have different user experiences or spending patterns. To mitigate this limitation, future research can include data from various devices. This would provide a more comprehensive picture. Analyzing platform-specific data could reveal if factors influencing purchase intention differ between mobile and other platforms as well.

Additionally, this research investigated factors influencing the initial purchase decision. It does not explore factors motivating players to repurchase microtransactions. Understanding what drives players to make repeat purchases is crucial. Hence, a separate study focusing on existing spenders regarding repurchase intention could explore factors like satisfaction with past purchases, the influence of in-game content updates, and the impact of loyalty programs.

Another limitation of this research lies in the potential influence of demographic factors, such as age, on purchase intentions. Different age brackets may prioritize various factors differently when deciding to make in-game purchases. For instance, older players aged 55 and above might place more importance on the overall gaming experience. In contrast, players aged 45-54 may may value the enjoyment derived from purchased items equally alongside the enhancements to their gaming performance. Future research should consider these demographic differences by conducting a more segmented analysis to explore how demographic-specific preferences influence purchase intentions. Such an approach would provide a deeper understanding of how targeted marketing strategies and game design could more effectively cater to the distinct needs and motivations of different demographic groups.

Lastly, this research focused solely on Honkai: Star Rail. Factors influencing purchase intention might differ across various freemium mobile games, especially those with distinct genres, monetization models, or target audiences. Investigating a broader range of freemium mobile games would reveal if the identified factors are game-specific or generalizable across the genre. A comparative analysis between Honkai: Star Rail and other popular titles could highlight unique aspects influencing purchase decisions within each game.

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