

**The Antecedents of True Loyalty in *Gacha* Mobile Games: A Case
Study in “*Honkai: Star Rail*”**



THESIS

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**The Antecedents of True Loyalty in *Gacha* Mobile Games: A Case
Study in “*Honkai: Star Rail*”**

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A THESIS

**Submitted in a partial fulfilment of the requirements for the
degree of Master of Business Administration**

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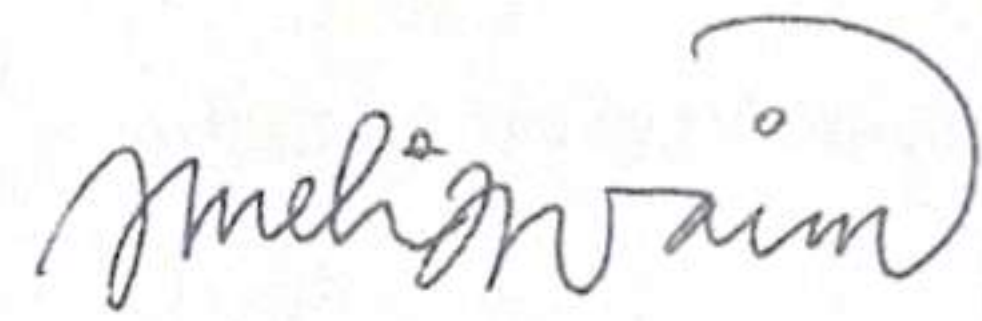
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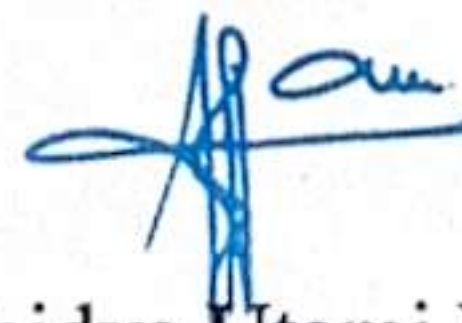
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NON-PLAGIARSIM DECLARATION FORM

This Thesis is a presentation of our original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgment of collaborative research and discussions.

Also, this work is being submitted in partial fulfillment of the requirements for the Master of Business Administration degree and has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Jakarta, 31 August 2026



Andrea Nadya Sentosa

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ABSTRACT

The live-service *gacha* mobile game industry faces challenges with how to keep players engaged and loyal in the long run, with rewards, gameplay experiences, and ever-changing content all influencing player perceptions. However, little empirical evidence combined rewards, flow experience and content marketing to explain true loyalty, especially through the mediating role of player satisfaction in live-service *gacha* games. This study examines these relationships with the game *Honkai: Star Rail* as a case study of Indonesian players, specifically in the Jabodetabek region. The study used a quantitative explanatory research design with a structured questionnaire and purposive sampling. The results obtained 143 valid respondents. The data were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The results show that rewards, flow experience and content marketing have positive and significant impacts on both player satisfaction and true loyalty. Player satisfaction exerts a significant positive effect on true loyalty and exerts a significant mediating effect on the relationships between the three antecedent variables and true loyalty. The results hint that in live-service *gacha* games, real loyalty is built up not just on direct experience of players but also through satisfaction as an important mechanism. This study contributes to the understanding of loyalty development in live-service *gacha* games and provides practical implications for developers to foster long-term loyalty through meaningful rewards, immersive gameplay, engaging content, and player satisfaction.

Keywords: *Rewards, Flow Experience, Content Marketing, Player Satisfaction, True Loyalty*

CHAPTER 1

INTRODUCTION

1.1 Background

In recent years, the gaming industry has grown to become one of the most significant areas of the worldwide digital economy. Video games have evolved from a specialized pastime to a popular form of entertainment enjoyed by billions worldwide due to developments in internet access, computer technology, and digital distribution channels. The rapid rise of the mobile gaming industry, which has become the leading platform in the global market, is one of the main drivers of this expansion. According to industry projections, in 2025 the global games market generated approximately USD 196–200 billion in revenue, with mobile gaming contributing more than USD 118 billion, representing over 50% of the total market share (Newzoo, 2025; Statista, 2026). This trend is particularly visible in Southeast Asia, which has become one of the fastest-growing regions for mobile gaming due to its young population, expanding digital infrastructure, and high smartphone penetration.

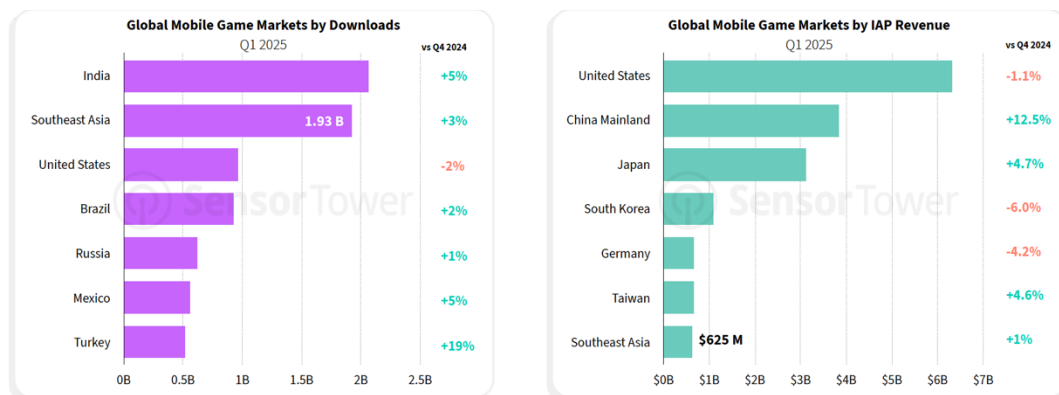


Figure 1.1. Comparison of Global Mobile Game Performance by Downloads and Revenue (Q1 2025)

Source: sensortower.com

Southeast Asia has established itself as a global leader in mobile game user acquisition, ranking as the second-largest market by downloads in Q1 2025, as shown in Figure 1.1., during this period, the region generated 1.93 billion new

installs, reflecting a steady 3% growth compared to the previous quarter. While the region ranks seventh in In-App Purchase (IAP) revenue, it still generated a substantial \$625 million in Q1 2025, maintaining a steady upward trajectory with 1% growth even as other major markets faced declines. Southeast Asia’s continued expansion indicates a massive, fresh influx of players entering the digital ecosystem. This surge in accessibility provides a vast playground for developers to test and scale new titles before focusing on monetization strategies.

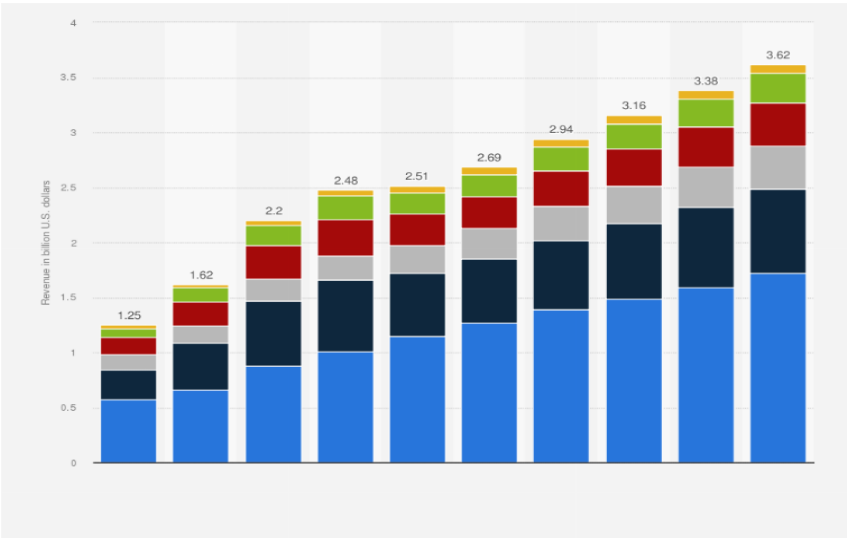


Figure 1.2. Forecasted Revenue Growth for the Southeast Asian Mobile Gaming Market (2020–2029)

Source: statista.com

According to recent industry reporting (as shown in Figure 1.2.) this synergy between scale and spending power allowed the market to surpass \$4 billion in total revenue by 2025, with a forecasted annual growth rate of 7–8% through the late 2020s (Sensor Tower, 2025; Statista, 2026). For global publishers, these two charts together explains that Southeast Asia offers the rare combination of a massive, growing audience and a resilient revenue stream and consequently has transitioned from an emerging territory into a critical strategic hub for developers and publishers focused on long-term international expansion.

Within Southeast Asia, Indonesia has emerged as one of the largest and most rapidly growing mobile gaming markets. By 2025, Indonesia had more than 185 million internet users and over 212 million smartphone connections, creating a substantial market for mobile game consumption (Statista, 2026). Industry reports show that Indonesia consistently ranks among the top markets in Southeast Asia in terms of mobile game downloads, contributing a significant share of the region's total player base (Sensor Tower, 2025). Moreover, in 2025, Indonesia's gaming market revenue was more than USD 2 billion, and the revenue from mobile gaming was the largest, due to the popularity of free-to-play titles with microtransaction-based monetization systems (Statista, 2026). This development is facilitated by the use of the live-service game model, which includes continuous content updates, seasonal events, and in-game purchases to maintain long-term player engagement (Hamari & Koivisto, 2015). Therefore, Indonesia is becoming a preferred emerging market for global mobile game developers that want to expand their presence through Southeast Asia (Sensor Tower, 2025; Statista, 2026).

In addition to benefiting from the expansion of the mobile gaming industry, another major monetization system is known as *gacha*. The term *gacha* comes from Japanese capsule toy vending machines known as “gashapon” (Nieborg & Poell, 2018). These games' core mechanic is a randomized reward system in which players spend virtual currency to “pull” or “summon” digital items such as powerful characters, unique outfits, or rare weapons (Pamungkas et al., 2025). Gacha games are typically “Free-to-Play” (F2P), meaning that players pay nothing to access all the content like traditional video games. That means the base game is free to download, but players have to get lucky to obtain specific, high-tier characters. The amount of pulls can be boosted by either earning in-game currency through gameplay or buying it with real money.

This system is intricately connected to variable ratio reinforcement, a psychological process that sustains anticipation and excitement, capturing players' attention and generating an experience akin to the thrill of unboxing a blind-box collectible (Cao et al., 2024; Zhang, 2024). Many modern games are designed with “pity systems” (Han, 2025) to improve the experience of the player, and to guaranty long term satisfaction. These are safety nets which guaranty a player receiving the

highest value “5-star” reward after a certain number of unsuccessful attempts, thus creating a “ceiling” for bad luck and increasing the perceived value of a player’s investment (Han, 2025).

Gacha games have also evolved into high-production “live-service” games. This implies that game developers deliver ongoing content updates that feature cinematic storytelling, professional voice acting and complex strategy mechanics (Fernandes et al., 2024). *Gacha* games use high production values and collection-based mechanics to provide a community experience in which players are incentivized to build and customize their roster (the specific collection of playable units that players acquire over the course of several years (Fernandes et al., 2024).

A recent prime example of success in the *gacha*-based mobile gaming industry is *Honkai: Star Rail*, developed and published globally in 2023 by HoYoverse, a subsidiary of the Chinese game developer company miHoYo, which is known for its expertise in "live-service" titles. This game is a space fantasy turn-based RPG (Role-Playing Game) that has a genre where players take turns in combat, and each turn requires strategy. This game is unique because it has character-driven storytelling and a strategic acquisition system (Pamungkas et al., 2025).

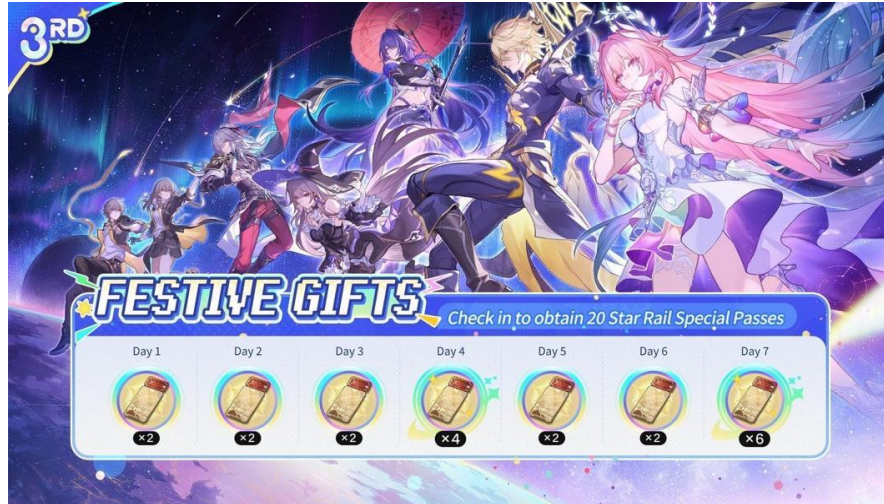


Figure 1.3. Free “Special Passes” as one of the rewards in celebration of the 3rd anniversary of the *gacha* game *Honkai: Star Rail*

Source: hsr.hoyoverse.com.

Since *Honkai: Star Rail*’s debut, the title has achieved unparalleled commercial success and critical acclaim, securing the "Best Mobile Game" award at The Game Awards 2023 (Pamungkas et al., 2025). A significant milestone in the game’s trajectory occurred on April 22, 2026, with the launch of the Version 4.2 update which marks its third-year anniversary (Chakrabarti, 2026). This event featured a substantial influx of incentives designed to retain and re-engage players, including free "Special Passes" (items used to acquire new characters) as shown in Figure 1.3., a gift of 1,600 "Stellar Jades" (the game’s primary virtual currency), and an exclusive anniversary-only in-game item "Golden Companion Spirit," which allowed players to claim the highest tier "5-star" character at no cost (Anime Corner, 2026; Siliconera, 2026). Beyond digital rewards, the anniversary was supported by large-scale collaborations, such as the announcement of an animated project by Japanese animation studio *MAPPA* and physical offline events such as themed tours, pop-up stores and limited collaborations with various restaurants and cafés worldwide, effectively extending the game’s cultural presence (CBR, 2026).



Figure 1.4. Screenshot display of a limited character "Warp" banner in *Honkai: Star Rail*

Source: Author's own game account

One of the most significant features of *Honkai: Star Rail* is its *gacha*-based acquisition system, known in the game as the "Warp" feature, where players use virtual currency to obtain characters and equipment through randomized draws. These systems are organized through limited-time banners as shown in Figure 1.4, which features specific high-rarity characters and items, encouraging players to strategically manage their in-game resources.

Entity Type	Entity Name	Warp Type	Warp Time
Character	Sushang	Character Event Warp	2026-05-13 11:47:15
Light Cone	Hidden Shadow	Character Event Warp	2026-05-13 11:47:15
Light Cone	Arrows	Character Event Warp	2026-05-13 11:47:15
Light Cone	Darting Arrow	Character Event Warp	2026-05-13 11:47:15
Character	Evanescia	Character Event Warp	2026-05-13 11:47:15

Figure 1.5. Screenshot of "Warp" pull records for limited Character Event banner in *Honkai: Star Rail*

Source: Author's own game account

To maintain player engagement and perceived fairness, the game provides an in-game ledger of historical draws, as depicted in Figure 1.5. This pull record interface allows players to verify their proximity to guaranteed rewards after a

certain number of unsuccessful attempts, implementing the “pity system” (Nieborg & Poell, 2018). Crucially, these logs display a mix of both playable characters and “*Light Cones*”, the game's equivalent of equipment or weapons, which are designed with unique mechanical passives that tightly synergize with specific character kits. Because a character's viability within the competitive metagame is often heavily dependent on pairing them with their optimal or signature *Light Cone*, this dual-layer acquisition system dramatically elevates the complexity of player resource allocation. As a result, gameplay decisions increasingly involve long-term planning, resource management, and selective participation in future character releases rather than purely spontaneous play (Teng et al., 2022). Consequently, player behavior becomes increasingly influenced by both gameplay efficiency and social expectations within the community (Carter, Gibbs, & Arnold, 2012).

These mechanics are closely linked to the metagame of the game, defined as the collective knowledge of the most effective strategies, combinations of characters, and playstyles in the current game environment (Carter, Gibbs, & Arnold, 2012). Furthermore, the metagame affects resource allocation, character development and participation in high difficulty content to optimize gameplay efficiency. These trends are also reinforced by community discussions on livestreams, online forums, social media platforms, and strategy guides that promote certain characters and team compositions as “optimal” choices. This leads to player behavior being increasingly influenced not only by personal preference but also by collective expectations and social influence within the gaming community (Hamari & Keronen, 2017). From a business standpoint, this changing metagame supports ongoing engagement, with players tracking updates, adjusting to new content releases, and maintaining ties with the wider game ecosystem. This means that *Honkai: Star Rail* is more than a digital game; it's a social and competitive space in flux, where the choices of players are heavily influenced by the shifting tides of gameplay and community-led conversations.

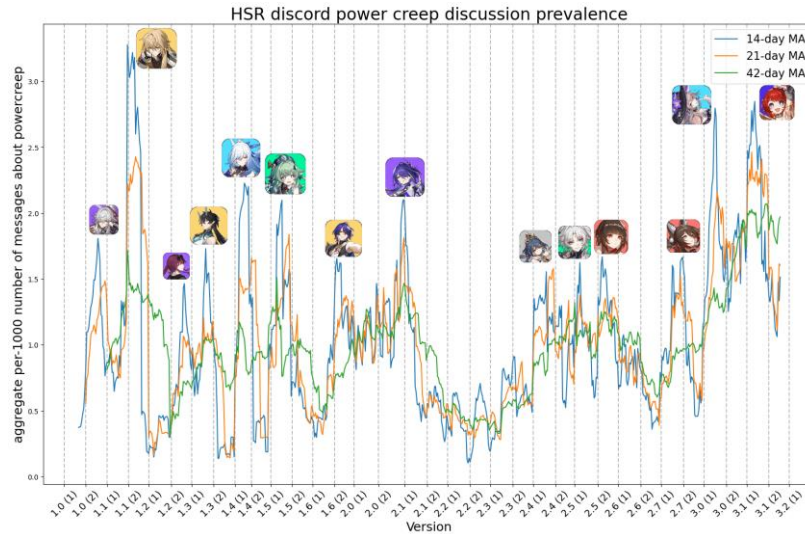


Figure 1.6. Visualization of power creep discourse in character usage in *Honkai: Star Rail*'s official Discord since the game's release up until version 3.2

Source: Reddit.com

The metagame is constantly evolving and this has inevitably led to power creep. This is when new game characters are introduced to exceed the capabilities of the older ones to incentivize the acquisition of newer units and sustained player engagement (Paul, 2018; Johnson & Woodcock, 2019). For instance, this occurs whenever HoYoverse introduces new game characters that exceed the capabilities of the older ones. This dynamic is particularly present in *Honkai: Star Rail* as it is a turn-based game, which allows for a significant measure of the performance difference between characters (Pamungkas et al., 2025). That shifting of the meta is measurable, and often leads to a lot of player discussion of game balance. As illustrated in Figure 1.6, the prevalence of power creep discussions within the *Honkai: Star Rail* community in social media such as Discord experienced sharp, cyclical spikes that closely correspond with specific version updates and character release windows. As developers introduce increasingly complex endgame challenge modes such as higher tier levels of Memory of Chaos or Apocalyptic Shadow, players often find that previously viable ("legacy") characters struggle to meet rising performance requirements. This condition gives rise to what can be described as investment anxiety, where the perceived value of prior time and financial investment becomes uncertain in the face of continuous system updates (Chen & Fang, 2023; Fernandes et al., 2024).

From a behavioral perspective, this shifts player decision-making from voluntary engagement toward defensive consumption, where acquiring new characters is no longer driven purely by preference or enjoyment, but by the need to maintain competitiveness within the evolving *metagame* (Xi, 2025; Pamungkas et al., 2025). These trends may help to keep engagement and revenue in the short term, but they do raise some questions from the business point of view about the sustainability of customer satisfaction and loyalty. The issue here is that it is difficult to accurately determine if the motivation for continued engagement is actually satisfaction on the part of the players or if they are being forced to stay engaged because of the mechanics of the reward and progression system of the game.

From a business point of view, the dynamics of customer (player) satisfaction and loyalty in gacha-based mobile games is a crucial challenge, as revenue and long-term success are completely dependent on continued player loyalty. In live-service games such as *Honkai: Star Rail*, players are always spending time, energy and, often, money to obtain and develop in-game characters. But the metagame nowadays is driven by constant content updates and the introduction of new and stronger characters, so the value of those investments over the long term is unclear. The traditional theory of customer satisfaction states that perceived value and enjoyment are factors that encourage continued usage (Pamungkas et al., 2025). However, player satisfaction is increasingly linked to the sense that what they put in beforehand still matters. Therefore, satisfied players are important as they are more likely to play the game every day, make several in-game purchases and also become organic promoters who will introduce the game to their social groups (Pamungkas et al., 2025).

This tension has a direct impact on the cultivation of true loyalty, which is more than just retention; it is a deeper psychological commitment to the game. There are several behavioral patterns that can express player loyalty to *gacha*-based systems, such as players who continue to play despite metagame shifts by focusing on the enjoyment of the narrative or collection of preferred characters. Other players might remain committed by investing continuously in optimizing their teams to be competitive at the top tiers of gameplay. However, if aggressive character balance

devalues players' investments in the game quickly, they may stop playing for reasons of true loyalty, and instead play defensively, as a form of consumption. Under this condition, continued play is sustained more by perceived investment obligations, fear of losing progress, and pressure to remain relevant within the evolving game environment than by intrinsic enjoyment (Teng et al., 2022; Mahardika et al., 2024). This distinction remains important to developers. Sustainable revenue is not only about short-term spending, but also long-term trust and emotional connection with the player base.

Content marketing and reward systems are strategic tools that assist in reducing investment anxiety and stabilising player perceptions to address this challenge (Lam et al., 2022; Fernandes et al., 2024). HoYoverse is able to manage expectations through regular communication channels such as cinematic trailers, developer livestreams and social media updates that signal future content direction and reinforce the value of existing characters (Johnson & Woodcock, 2019; Hamari & Keronen, 2017). These efforts are backed by future paths for progress that inject confidence in the game's longevity to players. Meanwhile, in well-designed reward structures, both instant rewards (e.g., free pulls and login bonuses) and delayed rewards in event progression systems are incorporated to help maintain a sense of ongoing value (Cao et al., 2024; Fernandes et al., 2024). From a business perspective, it's important to combine these tactics, because content marketing builds anticipation and trust, and reward systems heighten engagement and the sense of fairness. Combined, these factors give developers the tools to weigh continued monetization with the value of maintaining ongoing player satisfaction and authentic loyalty in a changing metagame landscape.

1.2 Research Problem

The research problem is that the need to remain engaged in the game can make players less invested in the value of their investment in the game, which is a big problem in live-service games such as *Honkai: Star Rail*. Developers such as HoYoverse provide reward systems, content updates, and marketing strategies to sustain engagement, but it remains to be seen whether this engagement creates real, satisfaction-based loyalty or is instead sustained by structural pressures embedded

in the game design (Hamari & Koivisto, 2015; Lam et al., 2022). Instant rewards, delayed rewards, flow experience and content marketing can be particularly important in determining the players' evaluation of their overall experience and the production of an impactful and sustained commitment to the game (Fernandes et al., 2024; Teng et al., 2022). Moreover, the issues of power creep and investment anxiety also raise important questions regarding the role of customer satisfaction as a mediating mechanism in this relationship (Xi, 2025). This study, therefore, seeks to examine how these factors interplay in influencing true loyalty, and whether player retention in *gacha*-based mobile games is primarily driven by positive experiential outcomes or adaptive responses to the dynamic and unpredictable metagame environment (Mahardika et al., 2024; Pamungkas et al., 2025).

1.3 Research Gap

While research on mobile gaming, gamification and digital consumer behaviour is rapidly growing, there are still a number of important gaps in the study of *gacha*-based live-service games, such as *Honkai: Star Rail*. Existing studies mainly explore player satisfaction, engagement intention, or monetization effectiveness in general, but seldom investigate the impact of metagame system evolution on the sustainability of long-term player loyalty. In particular, the existing literature does not sufficiently examine whether persistent *gacha* game engagement is a sign of true commitment, or merely adaptive engagement to the constantly shifting game and monetization environments. This study, therefore, acknowledges a gap of practical knowledge as well as an empirical gap in the existing body of research.

From the viewpoint of the gap between practical knowledge and theoretical knowledge, it appears that the current practices in the live-service *gacha* game industry function quite well outside the scope of existing academic findings (Johnson & Woodcock, 2019; Nieborg & Poell, 2018). That's why developers like HoYoverse are constantly pushing aggressive content cycles, limited time character banners, metagame changes, and power progression to keep people playing and spending money. Such types of strategies have been commercially successful but our academic knowledge of their long-term effects on player satisfaction and

sustainable loyalty is limited (Fernandes et al., 2024; Lam et al., 2022). Previous studies mostly focused on monetization systems mainly in the aspect of purchase intention or user retention but pragmatic industry issues were more linked to investment anxiety, metagame fatigue, perceived devaluation of previous purchases and defensive consumption behavior (Mahardika et al., 2024). There is therefore a disconnect between the complexity of operating live-service games in the real world, and the explanatory reach of existing research frameworks. The present study aims to fill this gap by investigating the joint effect of reward structures, flow experience and content marketing on satisfaction and true loyalty, in a changing metagame context.

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Moreover, this study also fills a population gap in the existing literature on digital gaming behaviour. Most studies on player engagement, monetization systems, and loyalty in video games focus on the Western and East Asian contexts, with little attention to players from South-east Asia, particularly Indonesia (Hamari

& Koivisto, 2015; Nieborg & Poell, 2018). This is an important limitation as players' cultural background, digital consumption behaviour and spending patterns may have a significant impact on how players perceive reward systems, their satisfaction and long-term loyalty in *gacha*-based games. Indonesia is one of the biggest and fastest growing markets for mobile gaming in South-east Asia. It has a high smartphone penetration and a strong participation in free-to-play gaming ecosystems (Statista, 2026; Sensor Tower, 2025). However, empirical studies on the *Honkai: Star Rail* game are very limited, especially among Indonesian players considering its strategic importance in the global gaming industry. Therefore, this study aims to fill this population gap by providing empirical evidence from the Indonesian player community, thus offering a more context-specific understanding of loyalty formation within the live-service *gacha* gaming environment.

By addressing these practical, empirical and population gaps, this study contributes to the broader understanding of digital consumer behavior in live-service gaming environments. More importantly, it provides insight into how developers may balance monetization strategies and metagame evolution without undermining long-term player trust and sustainable loyalty.

1.4 Research Questions

1. How do rewards influence player satisfaction in *Honkai:Star Rail*?
2. How do rewards influence true loyalty in *Honkai: Star Rail*?
3. How does flow experience influence player satisfaction in *Honkai: Star Rail*?
4. How does flow experience influence true loyalty in *Honkai: Star Rail*?
5. How does content marketing influence player satisfaction in *Honkai: Star Rail*?
6. How does content marketing influence true loyalty in *Honkai: Star Rail*?
7. How does player satisfaction influence true loyalty among players of *Honkai: Star Rail*?
8. How does player satisfaction mediate rewards, flow experience, and content marketing on true loyalty among players of *Honkai: Star Rail*?

1.5 Research Objectives

1. To analyze the impact of rewards towards player satisfaction in *Honkai: Star Rail*.
2. To analyze the impact of rewards towards true loyalty in *Honkai: Star Rail*.
3. To analyze the flow experience in *Honkai: Star Rail*'s gameplay in sustaining player satisfaction.
4. To analyze the flow experience in *Honkai: Star Rail*'s gameplay in sustaining true loyalty.
5. To analyze the effectiveness of *Honkai: Star Rail*'s Content Marketing for player satisfaction.
6. To analyze the effectiveness of *Honkai: Star Rail*'s Content Marketing towards true loyalty.
7. To analyze the influence of player satisfaction on true loyalty among *Honkai: Star Rail* players.
8. To analyse how player satisfaction mediates the effects of *Honkai: Star Rail*'s rewards, flow experience and content marketing to sustain true loyalty.

1.6 Research Benefits

This study has some theoretical and practical implications which are derived from analysis and conclusions made. From a theoretical perspective, the research adds to the understanding of digital consumer behavior by empirically investigating the existence and nature of direct and indirect loyalty drivers in deep engagement environments. The findings provides a theoretical basis for future research in this area by identifying key constructs influencing consumer loyalty in the studied setting. This includes the consideration of reward mechanics, flow inducing system design and content marketing as interrelated elements affecting player loyalty.

From the practical point of view the results of the research can be used in different directions. The study gives a set of considerations for developers of such projects as HoYoverse on how to implement monetization mechanics not to degrade the quality of the player experience and the power level of their content. For players,

the study can serve as a guide in understanding the specifics of engagement in such games and the ways in which this engagement can be regulated.

1.7 Research Flow

The research is guided by a deductive approach in which theory development is systematically validated empirically. The first stage consists of defining the research problem, which is a conflict between power creep and player loyalty, and developing a conceptual framework and hypotheses. The second phase is the collection of quantitative data by using online surveys distributed to the *Honkai: Star Rail* player community, especially in Indonesia. The third phase involves data analysis using statistical techniques, specifically path analysis, to test the proposed hypotheses. Finally, the fourth phase focuses on interpreting the results, drawing conclusions, and providing managerial implications for the mobile *gacha* gaming industry.

1.8 Research Outline

This thesis is structured into five chapters:

Chapter 1: Introduction

Presents the background of the study, research problem, research gap, research objectives, and the benefits and significance of the research.

Chapter 2: Literature Review

Explores the theoretical foundations underpinning the study, including reinforcement theory, flow theory, relationship marketing, and the dynamics of *gacha* game systems.

Chapter 3: Research Methodology

Outlines the research design, population and sampling procedures with a focus on the Indonesian context, and the analytical techniques employed.

Chapter 4: Results and Discussion

Presents the empirical findings from the survey data and evaluates the proposed hypotheses.

Chapter 5: Conclusion and Recommendations

Summarizes the key findings, discusses the study's limitations, and provides strategic recommendations for both academic research and industry practice.

CHAPTER II

LITERATURE REVIEW

2.1 Grand Theory

The basis of this research is mostly on the framework of Relationship Marketing Theory and Customer Loyalty Theory as the main theory to explain the establishment and sustainability of true loyalty in *gacha*-based mobile games. Relationship Marketing Theory is about the development of value, satisfaction, trust and commitment to build and sustain long-term relationships between organizations and customers (Morgan & Hunt, 1994). However, Customer Loyalty Theory illustrates the mechanism by which positive customer experience and satisfaction can result in a lasting attitudinal and behavioral commitment to a product or service (Dick & Basu, 1994).

Such integration is especially significant in live-service gaming situations, such as *gacha* games, where creators are in regular interaction with players through reward systems, content updates, promotional activities, and community-building initiatives. In this way, player retention is not only about incentivizing repeat play or purchase behavior, it's about creating a genuine sense of satisfaction and emotional investment that makes people want to stay invested even when the metagame shifts and alternative entertainment options emerge. Thus, these theories give a suitable frame to analyze the impact of rewards, flow experience and content marketing on happiness and the final establishment of true loyalty amongst players.

2.1.1 Relationship Marketing Theory

Relationship Marketing Theory focuses on the importance of developing and maintaining long-term relationships with customers and not only focusing on individual transactions. Relationship marketing seeks to create sustainable value through customer satisfaction, trust, commitment and loyalty, unlike the traditional transactional marketing focused on short-term sales objectives (Morgan & Hunt, 1994). The theory suggests that organisations can obtain competitive advantage over time by developing strong emotional and relational ties with customers that result in repeated interactions and long-term customer retention. Morgan and Hunt

(1994) proposed the Key Mediating Variable (KMV) Model which is illustrated in Figure 2.1, which highlights trust and commitment as the primary processes by which relationship-building activities influence long-term relationship outcomes. This means that relationship benefits, shared values, communication, and other relationship characteristics all help to build trust and commitment, which improves cooperation and reduces customer churn.

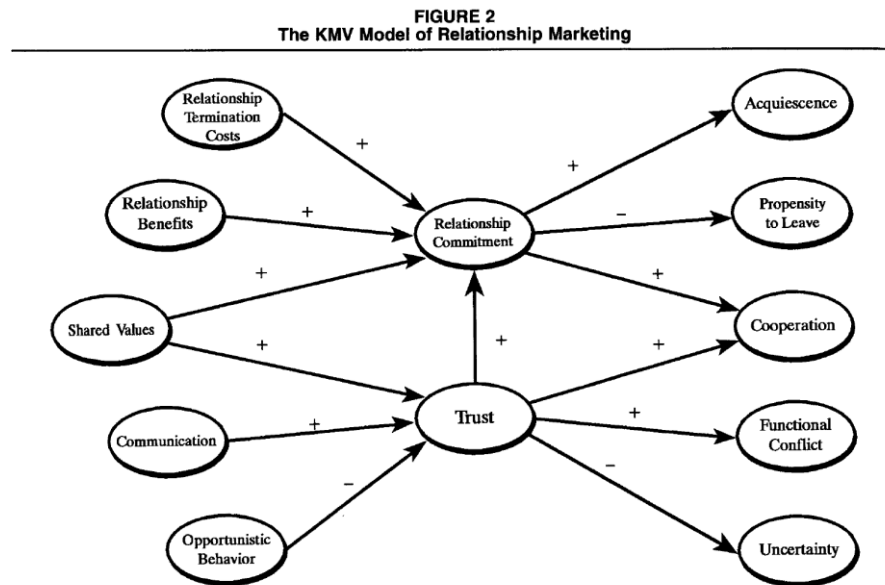


Figure 2.7. Key Mediating Variable (KMV) Model of Relationship Marketing

Source: Morgan & Hunt (1994).

In recent developments in relationship marketing, the importance of customer engagement and personalized interactions is further highlighted in fostering sustainable customer relationships. Roy et al. (2025) explain that relationship marketing contributes to improved customer retention, satisfaction, engagement, and loyalty by enabling organizations to provide personalized experiences, proactive support, and value-added services. The authors also point out that relationship marketing helps to foster long-term relationships by improving customer experiences and by attending to individual customer needs along the customer journey.

Moreover, Relationship Marketing Theory offers an important basis for analysing the effects of content marketing activities on customer satisfaction and

real loyalty in the digital gaming environments. In live-service games, developers are in constant touch with their players through promotional content, livestreams, character announcements, previews of updates, social media engagement and community building. These ongoing interactions help keep players engaged, build their emotional connection to the game, and create perceived value through positive experiences. In digital service environments, customer relationships are built through ongoing engagement rather than one-time transactions, thus customer satisfaction is an important antecedent of loyalty, affecting players' intentions to continue playing, repeat purchases, and recommend the game to others (Kotler & Keller, 2016).

Regarding *gacha*-based mobile games, the theory of Relationship Marketing becomes a useful point of view to explain how developers maintain long-term relationships with players. This is very different from the old style of video games in which you bought the game once. Live service games are constantly interacting with the players through content releases, rewards, community events and promotions. These interactions affect player satisfaction and shape players' perceptions on values, fairness, and commitment to the game's ecosystem (Lam et al., 2022).

Therefore, the overall theoretical background of this study is the Relationship Marketing Theory because it explains how the satisfaction achieved through rewards, flow experience and content marketing can eventually lead to the development of true loyalty among players.

2.1.2 Customer Loyalty

Customer Loyalty Theory explains the conditions under which customers develop a sustained commitment toward a product, service, or brand. The theory extends beyond the concept of repeated purchasing behavior by emphasizing the importance of favorable attitudes, emotional attachment, and long-term preference formation. According to Dick and Basu (1994), loyalty is a multidimensional construct that consists of both behavioral and attitudinal components. Behavioral loyalty refers to observable actions such as repeated purchases or continued usage, whereas attitudinal loyalty reflects a deeper psychological commitment

characterized by positive beliefs, emotional attachment, and resistance to competing alternatives.

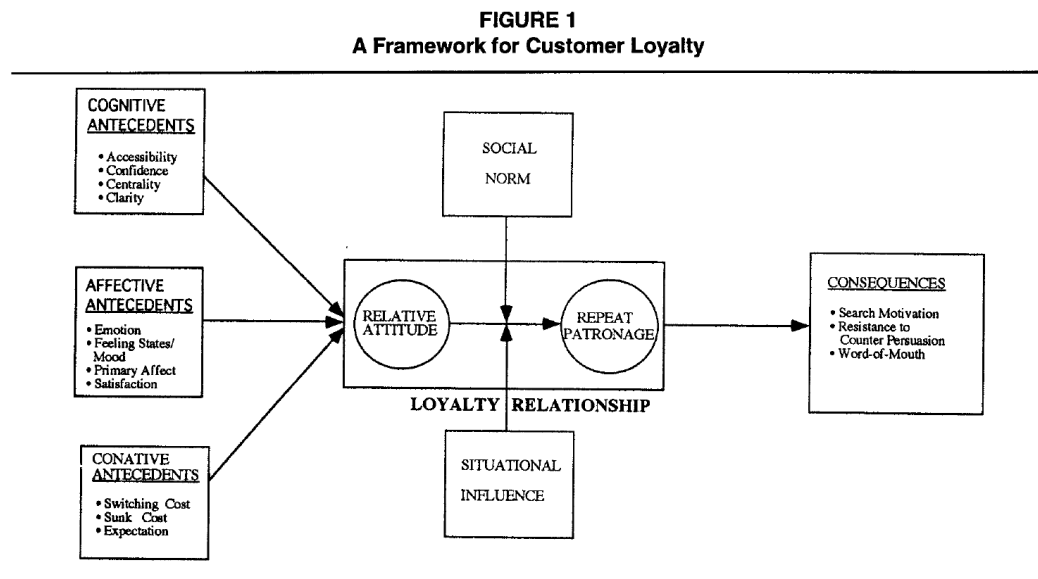


Figure 2.8. Framework for Customer Loyalty

Source: Dick & Basu (1994)

Figure 2.2 illustrates the integrated framework of customer loyalty proposed by Dick and Basu (1994) to which the model suggests that loyalty emerges from the interaction between relative attitude and repeat patronage behavior. Relative attitude is influenced by cognitive antecedents (e.g., accessibility, confidence, centrality, and clarity), affective antecedents (e.g., emotion, mood, and satisfaction), and conative antecedents (e.g., switching costs, sunk costs, and expectations). The relationship between attitude and repeat patronage may further be influenced by social norms and situational factors. When favorable attitudes are accompanied by repeated patronage behavior, genuine customer loyalty is formed, leading to outcomes such as positive word-of-mouth, resistance to counter-persuasion, and reduced motivation to search for alternatives.

One of the most important contributions of Customer Loyalty Theory is the distinction between true and spurious loyalty. True loyalty is when someone buys a product or service because they really like it and want to use it. In contrast, spurious loyalty is repeated behavior not based on satisfaction or commitment, but on

situational constraints, switching barriers, habit, or lack of alternatives (Dick & Basu, 1994). Therefore repetition cannot be taken in itself as proof of real loyalty, without reference to the deep motives that underlie.

Satisfaction is an important affective antecedent of relative attitude and plays a central role in the formation of loyalty in the Dick and Basu (1994) framework. Customer satisfaction is commonly understood to be a crucial predictor of loyalty in digital service settings because positive encounters lead to positive feelings about a service and make it more probable that users will return to it. The more positive the results the more likely the customers will trust, commit and be loyal to a service provider. This relationship is especially important in highly competitive markets where the consumer has many alternative choices and can move easily from one competitive offering to another. Therefore, organizations tend to make customer satisfaction retention a strategic tool to improve loyalty and long-term business performance (Kotler & Keller, 2022).

The framework of Customer Loyalty Theory can be utilized to understand player retention behavior in live-service *gacha* games. Players may be engaged in a game for long periods of time but the reasons for their engagement may be very diverse. Some players stay for the story, the gameplay experience and the social aspect of the game, these are elements of true loyalty. Some may be playing because of the time, effort and financial resources they have already invested, and because of concerns about falling behind in the evolving metagame. This may be what we call a spurious loyalty, where the actor remains because of external constraints and not any real attitudinal commitment. As seen in Chapter I, the existence of phenomena such as power creep, investment anxiety and defensive consumption means that continued engagement may not always be a sign of true loyalty.

Therefore, factors that enhance the players' experience and their perceived value, should have a positive impact on consumer satisfaction, which in turn should allow the development of authentic loyalty. Therefore, the theory of Customer Loyalty is very relevant to this study because it provides a conceptual basis for differentiating between mere player retention and real loyalty. From this perspective, customer satisfaction is not just the result of positive gaming experiences but also an important process, in which engagement turns into long-

term commitment. This theory thus supports testing the contribution of instant rewards, delayed rewards, flow experience and content marketing on the development of true loyalty among players, with the mediating role of customer satisfaction.

2.2 Rewards

Rewards refers to incentives or benefits that individuals receive after doing desired behaviors or participating in specific activities. In digital service environments, rewards are widely deployed to stimulate user participation by offering favorable outcomes that acknowledge users' effort and contribution. According to Fernandes et al. (2024), reward systems shape client perceptions and behavioral reactions by eliciting feelings of gratification, achievement, and value recognition. By directly linking user effort to desirable outcomes, these incentives strengthen positive evaluations of the experience and encourage sustained engagement.

Within gamified systems and digital games, rewards commonly come in various forms such as login bonuses, virtual currency, achievements, promotional incentives, event rewards, progression milestones, and exclusive content. Hamari and Koivisto (2015) argue that reward-based mechanisms enhance user engagement by fostering a sense of accomplishment and providing continuous motivation to participate. Similarly, Teng et al. (2022) demonstrate that structural rewards positively influence users' psychological satisfaction by reinforcing feelings of achievement, progress, and value within digital environments.

Rewards can be classified on the basis of the mode of delivery i.e. instant or long term accrued through continuous participation and long term progression. Many regularly-updated games that depend on recurring players (e.g. *gacha*) reward players in immediate and delayed manners. Examples of instant incentives are daily login prizes or instant event awards (Fernandes et al., 2024). Rewards may be delayed and related with the accomplishment of some stages or anniversaries of games (Teng et al., 2022). Both forms of rewards are vital for the game experience and for building customer happiness. On one hand, users are incentivized to keep coming back to the game as they receive daily or instant incentives. In contrast, players are more inclined to spend time on the game and get higher enjoyment from

getting delayed benefits. Both incentives are equally important from the gaming experience perspective. The two forms of prizes are typically combined in regularly-updated games. Players derive joy from getting daily or rapid prizes in addition to getting bigger delayed rewards. Moreover, in the long run, the player feels the worth of the time invested in the game, which also positively impacts their overall experience.

Based on analysis from Hamari and Koivisto (2015), Teng et al. (2022), and Fernandes et al. (2024), rewards are measured through players' perceptions of the benefits and value they receive from game participation. These perceptions encompass the consistency of reward distribution across gameplay activities, the utility of rewards for game progression, their capacity to motivate continued participation, and their overall contribution to an enjoyable gaming experience. Additionally, the measurement evaluates the subjective value players assign to these incentives and the positive emotions generated upon receiving them. Collectively, these indicators reflect how effectively a game's reward system constructs a meaningful and rewarding user experience.

2.2.1 Indicators of Rewards

Based on Fernandes et al. (2024), Hamari and Koivisto (2015), and Teng et al. (2022), rewards are measured through players' perceptions of the benefits and value they receive from participating in the game through several indicators. These include whether the game gives you rewards right after you finish daily activities, and how useful are these incentives for progressing in the game. The system also considers emotional and motivational outcomes, such as whether players are satisfied with the rewards they receive from the game, and whether the incentives provided are encouraging them to continue playing. Finally, the measurement accounts for the experiential and subjective value of the system, i.e., if the received rewards add to a more enjoyable gameplay experience and if the rewards that are being provided are ultimately considered valuable by the players.

2.3 Flow Experience

Flow experience is the optimal psychological state that people enter when their skills are appropriately matched with the challenges of an activity

(Csikszentmihalyi, 1990). The people immersed in the activity experience flow, a sense of control, and enjoyment of participation. According to Flow Theory, this type of experience makes people return again and again because the activity itself is fun and rewarding.

In this sense, flow experience is a psychological state in which individuals are deeply involved and absorbed in an activity, where they are completely focused on what they are doing and experience a sense of enjoyment, control and intrinsic motivation. Digital environments can be designed to support flow through a balance between the challenge of an activity and the user's skill level. This results in concentration and a perfect experience. In recent studies, flow experience has been found to be an important determinant of user satisfaction, engagement, and continued participation in online gaming and digital platforms (Teng et al., 2022; Rita et al., 2019).

Flow experience in gaming environments is a state of deep immersion in the gaming activities, the feeling of losing the awareness of the outside distractions of the game and the enjoyment of the gaming process itself. Previous research has indicated that gaming immersion enhances players' perceived worth and happiness, as the activity is innately gratifying and not prompted by external incentives such as awards or achievements (Hamari & Keronen, 2017; Teng et al., 2022). Therefore, flow experience is identified as a crucial characteristic for long-term involvement and pleasant player experience.

Gacha games can build a flow of experience through the integration of various gaming mechanisms such as tactical combat, story progression, world exploration, character development, and event participation. These tasks require ongoing attention and participation, and they increase the player's immersion in the game environment where the players are playing well and are involved in the game, which leads to better appraisals of the game and as such, higher customer satisfaction.

2.3.2 Characteristic of Flow Experience

According to current flow literature and gaming studies, flow experience can be measured using a number of important features that reflect a player's level of

deep participation during games. These characteristics include concentration, which refers to the extent to which players are fully focused on gameplay activities without being distracted by external factors; enjoyment, which reflects the extent to which players experience pleasure, excitement, and intrinsic satisfaction during gameplay; sense of control, which represents the perception that players can effectively influence gameplay outcomes through their actions and decisions; and time distortion, to which these features, taken together, describe the immersive and intrinsically rewarding nature of flow experiences in digital game environments.

2.3.3 Indicators of Flow Experience

The experience of flow influences players' engagement in a digital gaming environment that is characterized by deep immersion and elevated concentration. In this best case scenario, people are fully involved in the task and completely absorbed in the game world. This experience is further improved by a high sense of agency where players feel in control of their actions and decisions in the game. This deep involvement often causes a distortion in a player's perception of time, and causes them lose track of time. All these factors create a state of intrinsic motivation, in which the experience of playing for the sake of playing is pleasurable and rewarding in itself, regardless of the objective rewards they may receive.

2.4 Content Marketing

Content marketing is a marketing concept where a company concentrates on creating and distributing content that is useful and interesting to its audience. This marketing approach is about engaging, educating and entertaining possible customers rather than being directly promotional (Lou & Xie, 2021). So it inferred that content marketing has a very important role in the digital space to build brand awareness, influence consumer behavior, and improve customer loyalty. Lou and Xie (2021) and Wozniak et al. (2017) have recently demonstrated that high-quality content can positively influence consumer attitudes by offering useful information, reducing uncertainty, and enhancing the overall user experience, as content marketing is being more recognized as a major factor to influence consumer engagement and build long term relationships. The benefits of products are communicated by organizations and their audience engagement is maintained with

informative and engaging content, thus making stronger emotional bonds with their consumers.

Content marketing in live-service *gacha* games is more than just traditional advertising. Developers of this specific video game genre often create character trailers, animated short films, developer livestreams, new version or patch preview programs, social media campaigns and web events to inform players about upcoming content and to maintain player engagement. These activities also help the players to understand the future development of the game and generate anticipation for new updates, and reinforce the confidence in the sustainability of the game on the long run. Thus, successful content marketing can help increase customer satisfaction by increasing perceptions of value, transparency and engagement of players.

This research has conceptualized content marketing based on the existing academic literature with four dimensions such as informative value, entertainment value, engagement value, and content consistency (Ashley & Tuten, 2015). Informative content is about positioning the brand by providing customers with relevant information about the products and services offered. Second, entertainment value refers to the extent to which the brand's content marketing efforts are interesting and pleasurable to the target audience, which helps to develop engagement and involvement among consumers. Third, like entertainment value, engagement value emphasizes the importance of developing a meaningful relationship with the target audience. Finally, content consistency shows the amount of efforts that the brand puts in to keep a constant touch with the consumers through regular updates and relevant information.

2.5 Customer Satisfaction

Customer satisfaction is the overall evaluation by a customer of a good or service in terms of whether or not it meets their expectations. It is the extent to which customer's perception of a product or service experience has satisfied their wants, preferences and expected advantages. More recent research have shown that customer satisfaction is a major predictor of long-term behavioral outcomes, such as continuous usage, repurchase intentions and loyalty (Rita et al., 2019; Fernandes et al., 2024).

Regarding digital services, customer satisfaction generally is a function of the quality of user experiences, perceived value, engagement opportunities and the service provider's ability to consistently deliver promised benefits . Customers who are satisfied tend to have a positive attitude to a service, continue to use the service over time and promote it to others. So customer satisfaction is widely seen as an important factor for the survival of long term customer relationships and the business success.

Customer satisfaction in *gacha* games is an indicator of the overall experience of people playing the game. Such assessments may be influenced by their pay, the enjoyment of gaming, and the quality of HoYoverse's communication and content methods. Players who receive enjoyable, meaningful advancement and quality content on a regular basis are more likely to be satisfied. Kotler & Keller (2022), Oliver (2015), and Fornell et al. (1996) note that customer satisfaction can be assessed through several key dimensions that reflect consumers' overall evaluation of their experiences with a product or service, to which these dimensions are related to the notion of satisfaction. First, satisfaction is a concept related to the extent to which participants' expectations are fulfilled, known as expectation fulfillment. Second, the other dimension of satisfaction is perceived value which is related to the proportion between the expenditure on the product and the benefits obtained from it. Lastly, the overall level of satisfaction of the participant with the product is termed as satisfaction.

2.6 True Loyalty

True loyalty is a long-term commitment to a product, service or brand based on real preference, positive attitudes and emotional attachment rather than situational factors or external pressures. The existing loyalty literature differentiates between true loyalty and behavioural retention and notes that repeat usage does not equal true loyalty. According to Dick and Basu (1994), real loyalty involves both favourable relative attitude and repeat patronage behaviour, while Oliver (1999) further elaborates on loyalty as a deep commitment to continue to purchase or use a preferred product or service, in spite of situational influences and the marketing efforts of competitors. Consequently, true loyalty encompasses attitudinal and

behavioural elements, indicating a customer's willingness to persist in buying a product based on its value, positive experiences, and satisfaction (Dick & Basu, 1994; Oliver, 1999; Fernandes et al., 2024).

True loyalty in digital environments is defined as: continued usage, positive word-of-mouth, advocacy behaviour and willingness to maintain a relationship with a brand when there are competing alternatives available. Previous studies suggest that satisfied customers are more likely to develop stronger emotional ties and long-term commitment, resulting in sustainable loyalty behaviours (Rita et al., 2019).

In *gacha* games, loyalty is when players actually love the game (because they had good experiences and are satisfied) rather than just being loyal because they had a lot of investments in the game or are afraid of losing progress. Loyal players can continue to play the game, tell others about it, support future content releases, and remain engaged even when they have other gaming options.

True loyalty can be measured on a number of key dimensions that are indicative of attitude and behavioural responses of customers to a brand (Dick and Basu, 1994; Oliver, 1999; Chaudhuri and Holbrook, 2001). These dimensions include attitudinal loyalty, which refers to positive feelings, preference, and psychological commitment toward the game; behavioral loyalty, which represents continued participation and the intention to remain active in the game over time; advocacy intention, which reflects players' willingness to recommend the game to others through positive word-of-mouth; and commitment, which refers to the long-term intention to maintain a relationship with the game despite the availability of competing alternatives. Collectively, these dimensions measure the extent of real loyalty of the players through positive attitudes, continuous engagement, recommendation behaviour, and long-term commitment to the game.

2.7 Previous Studies

This research is based on reviews of previous studies which provide the theoretical and empirical foundation. By reviewing the relevant literature, researchers can find out what is known, what is the direction of research, what is the method of research and what are the areas not yet studied in a particular field of study. This study analyses previous research related to reward system, flow experience, content marketing, customer satisfaction and loyalty to support the

proposed conceptual framework and hypotheses. In addition, by reviewing prior research, one can identify inconsistencies and unexamined relationships that merit further investigation.

There are many studies on the factors influencing customer satisfaction and loyalty in digital environments. However, there is very little research that has studied these relationships in live-service *gacha* games. Existing research has generally been on individual variables such as rewards, engagement or loyalty and paid limited attention to the simultaneous influence of instant rewards, delayed rewards, flow experience and content marketing on true loyalty through customer satisfaction. Therefore, the following studies are reviewed to demonstrate the current state of knowledge and highlight the research gap addressed by this study.

Table 2.1. Previous Studies

Title	Author(s)	Variables	Method	Main Findings
Cultivating True Loyalty in an Emerging Market: Does Reward Timing Really Matter?	Fernandes, N. M. J. A., Harry, D., & Koekemoer, P. (2024).	Instant Reward, Delayed Reward, Customer Satisfaction, True Loyalty	Structural Equation Modeling (SEM)	Reward timing significantly influences customer satisfaction and loyalty.
How strategic, offensive, and defensive engagement impact gamers' need satisfaction, loyalty, and game usage.	Teng, C. I., Huang, T. L., Yang, Z. H., Wu, W. J., & Liao, G. Y. (2022).	Strategic Engagement, Offensive Engagement, Defensive Engagement, Need Satisfaction, Player Loyalty, Game Usage	Survey; Structural Equation Modeling (SEM)	Positive gaming engagement increases satisfaction and loyalty.
What Drives Consumption in Online Games? Homo Socio Interneticus Approach	Mahardika, A., Runturambi, A. J. S., & Revindo, M. D. (2024).	Psychological Engagement, Social Influence, Online Gaming Consumption	Structural Equation Modeling (SEM)	Psychological engagement significantly affects gaming behavior and consumption decisions.
The impact of e-service quality and customer satisfaction on	Rita, P., Oliveira, T., & Farisa, A. (2019)	E-Service Quality, Customer Satisfaction, Trust,	Structural Equation Modeling (SEM)	Customer satisfaction positively affects loyalty in digital services.

Title	Author(s)	Variables	Method	Main Findings
customer behavior in online shopping		Customer Behavior, Customer Loyalty		
Play, games and gamification: possibilities for customer loyalty	Lam, J., Robson, K., Plangger, K., Kietzmann, J.H., Pitt, L. and McCarthy, I., (2022)	Gamification, Reward Systems, Customer Engagement, Customer Experience, Customer Loyalty	Quantitative Study	Reward systems and gamification mechanisms influence customer loyalty.
Something social, something entertaining? How digital content marketing augments consumer experience and brand loyalty.	Lou, C., & Xie, Q. (2021).	Content Marketing, Informative Value, Entertainment Value, Consumer Experience, Brand Loyalty	Survey	Valuable digital content positively influences consumer engagement and loyalty.
Price discrimination in mobile <i>gacha</i> games: A comprehensive study of the scarcity–pricing, <i>gachaing</i> –user profiling, and recharging–profiting models.	Cao, R., Zhang, W., & Sun, F. (2024).	Scarcity Pricing, <i>Gacha</i> Systems, User Profiling, Recharge Behavior, Consumer Spending, Monetization	Quantitative Study	Reward scarcity and monetization mechanisms influence player perceptions and spending behavior.
Examining mobile game's loyalty strategy: The case of Honkai Star Rail.	Pamungkas, A. S., Ramadania, Heriyadi, & Pebrianti, W. (2025).	Rewards, Player Satisfaction, Player Engagement, Mobile Game Loyalty, Repurchase Intention	Structural Equation Modeling (SEM)	Satisfaction and engagement significantly contribute to loyalty formation.
Why people continue to play online games: In search of critical design factors to increase customer	Choi, D., & Kim, J. (2004).	Game Design, Enjoyment, Flow Experience, Customer Satisfaction, Customer Loyalty, Continued Usage	Survey	Immersive game design enhances enjoyment and customer satisfaction, leading to greater player loyalty and continued participation.

Title	Author(s)	Variables	Method	Main Findings
loyalty to online contents.				
Why do people play on-line games? An extended TAM with social influences and flow experience.	Hsu, C. L., & Lu, H. P. (2004).	Ease of Use, Perceived Usefulness, Social Influence, Flow Experience, Attitude, Satisfaction, Behavioral Intention, Continued Use	Survey; Structural Equation Modeling (SEM)	Flow experience positively influences users' attitudes, satisfaction, and intention to continue playing online games.

Several conclusions can be drawn from the reviewed studies. First, customer satisfaction has consistently been found to be an important antecedent of customer loyalty in various digital service settings. Second, although reward-related mechanisms have been shown to influence user engagement and satisfaction, the effects of reward timing have been relatively unexplored. Third, flow experience is recognized as a significant factor for positive user experience and continued engagement on digital platforms. Fourth, it has been proven that content marketing can increase client engagement and affect consumer perceptions. However, the existing studies tend to treat these variables separately not in an integrated framework.

In addition, while there has been recent research on gaming behavior, gamification and digital consumer loyalty, there is a lack of empirical research on live-service *gacha* games in particular. Given the importance of *Honkai: Star Rail* in the global gaming industry, there is a particular lack of research into *Honkai: Star Rail* as a case study. Thus, this study attempts to fill this gap in the literature by examining the effect of instant rewards, delayed rewards, flow experience, and content marketing on true loyalty through the mediating effect of customer satisfaction among *Honkai: Star Rail* players.

2.8 Hypothesis Development

2.8.1 The Influence of Rewards on Player Satisfaction and True Loyalty

Rewards represent one of the most important motivational mechanisms in digital gaming because they reinforce player participation and enhance the overall gaming experience. Rewards are fundamental to engagement in digital games and are a principal motivator. They can come in many forms, such as virtual currency, character progression, achievements, exclusive items, event incentives, and promotional gifts. Rewards, instantaneous or with effort, provide players with achievement, satisfaction and recognition of their effort (Fernandes et al., 2024; Hamari & Koivisto, 2015).

A number of studies have shown that meaningful rewards can improve the perception of digital services by users. When players find the rewards to be valuable, rewarding and proportional to their efforts, they are more likely to enjoy the game and view it as rewarding, which enhances their satisfaction (Fernandes et al., 2024; Teng et al., 2022). Live-service *gacha* games like *Honkai: Star Rail* have their rewards distributed through gameplay activities, time-sensitive events, progression systems, daily commissions, promotional campaigns and more. The rewarding systems are such that the game feels like a recognition of player's efforts which in turn leads to their satisfaction with the game.

Rewards can increase satisfaction but they also help directly to build true loyalty. True loyalty is a strong commitment to a product or service that is not based on repetitive usage, but is demonstrated by positive attitudes and continued patronage (Dick & Basu, 1994). Reward systems are a great way to boost long-term engagement as they reinforce positive experiences with the game and players' sense of value. Immediate rewards bring quick satisfaction and reinforce continued engagement, whereas deferred rewards foster perseverance toward meaningful long-term goals and progression (Fernandes et al., 2024).

Players who repeat experiences of rewards are more likely to form positive attitudes toward the game, to persist in the game in the face of challenges and alternatives, and to support the game over time. Many studies have been reported the positive impacts of the reward-based gamification mechanisms on users' attitudes, continuation, and sustained use (Hamari et al., 2014; Koivisto & Hamari,

2019). So, it is expected that rewards will have a positive impact on true loyalty among *Honkai: Star Rail* players.

Based on the preceding discussion, the following hypotheses are proposed:

H1a: Rewards have a positive and significant effect on Player Satisfaction.

H1b: Rewards have a positive and significant effect on True Loyalty.

2.9.2 The Influence of Flow Experience on Player Satisfaction and True Loyalty

Flow experience refers to a psychological state characterized by deep concentration, immersion, enjoyment, and complete involvement in an activity. Csikszentmihalyi (1990) proposed the Flow Theory which states that people experience flow when the challenges of an activity are in line with their skills and abilities. In this state people are totally engrossed in the activity and often lose track of time and external distractions.

Flow experience has a positive effect on users' perceptions of enjoyment and overall experience quality, which further contributes to satisfaction (Teng et al., 2022). Users in flow tend to experience the activity as intrinsically rewarding and enjoyable. This positive affective state often results in positive evaluations of the product or service associated with the experience.

Flow is the optimal psychological state in which people are highly focused, deeply engaged and intrinsically motivated in the doing of an activity. Several studies have reported a positive relationship between flow experience and user satisfaction. Teng et al. (2022) reported that gamers who experience greater immersion and enjoyment tend to express higher levels of satisfaction with their gaming experiences. Likewise, Rita et al. (2019) found that flow contributes to more favorable evaluations of digital services by enhancing enjoyment and perceived value. Supporting these findings, Hsu and Lu (2004) demonstrated that flow positively affects users' attitudes and satisfaction in online gaming contexts, whereas Choi and Kim (2004) showed that immersive gameplay increases perceived enjoyment and overall satisfaction among online game players.

In *Honkai: Star Rail*, players may experience flow through strategic combat, story progression, exploration activities, puzzle-solving, and character development systems. The game's combination of engaging narratives, visually appealing environments, and challenging gameplay mechanics can facilitate immersion and sustained attention. As players become deeply engaged in these activities, they are more likely to derive enjoyment from the gaming experience and develop positive perceptions of the game. Therefore, flow experience is expected to contribute significantly to customer satisfaction.

Based on the preceding discussion, the following hypotheses are proposed:

H2a: Flow Experience has a positive and significant effect on player satisfaction.

H2b: Flow Experience has a positive and significant effect on true loyalty.

2.9.3 The Influence of Content Marketing on Player Satisfaction and True Loyalty

Content marketing refers to the creation and distribution of valuable, relevant, and engaging content designed to attract and retain consumers. Content marketing takes a different approach to promotions compared to traditional marketing, seeking to provide information, entertainment, and meaningful experiences that build stronger relationships between organisations and consumers. Content marketing done well can build consumer trust, reduce uncertainty, and improve perceptions of value.

Previous studies suggest that content that is informative and engaging improves customer perceptions and has a positive effect on satisfaction (Lou & Xie, 2021). Consumers are more likely to feel informed and connected to a brand when they receive useful and relevant information. Moreover, regular communication can promote transparency and generate positive attitudes towards the organisation. Players' interest is maintained and future developments announced through trailers, live streams, social media campaigns, developer updates, promotional videos and update previews. These marketing efforts give players a glimpse of what's coming, what to look forward to later, and how to stay connected to the game's community.

Therefore, players may derive more value from their gaming experience and develop higher levels of satisfaction with the game and its ecosystem.

Based on the preceding discussion, the following hypotheses are proposed:

H3a: Content Marketing has a positive and significant effect on player satisfaction.

H3b: Content Marketing has a positive and significant effect on true loyalty.

2.9.4 The Influence of Customer Satisfaction on True Loyalty

Customer satisfaction is widely recognized as one of the strongest antecedents of customer loyalty. Satisfaction reflects the extent to which consumers perceive that a product or service meets or exceeds their expectations. According to Expectation-Confirmation Theory, consumers who experience positive confirmation of their expectations are more likely to develop favorable attitudes and continue their relationship with the product or service.

Satisfied customers are more likely to continue using a product or service, recommend it to others, and maintain a long-term relationship with the brand. Previous studies consistently demonstrate that satisfaction contributes positively to loyalty formation across various digital service contexts (Rita et al., 2019; Fernandes et al., 2024). Customer satisfaction can also strengthen emotional attachment and increase consumers' willingness to remain committed despite the availability of alternatives.

In the context of *Honkai: Star Rail*, players who perceive that the game consistently delivers enjoyable experiences, valuable rewards, engaging content, and meaningful progression opportunities are more likely to remain loyal to the game. Therefore, customer satisfaction is expected to positively influence true loyalty among *Honkai: Star Rail* players.

Based on the preceding discussion, the following hypotheses are proposed:

H4: Player Satisfaction has a positive and significant effect on True Loyalty.

2.9.5 The Mediating Role of Player Satisfaction

Customer satisfaction may serve as an important mechanism through which rewards, gameplay experiences, and marketing activities influence true loyalty. Mediation occurs when an independent variable affects a dependent variable indirectly through an intervening variable. In this study, customer satisfaction is proposed as the mediating variable that explains how players' perceptions of rewards, gameplay experiences, and marketing communications ultimately contribute to loyalty.

Rita et al. (2019) and Fernandes et al. (2024) found that satisfaction plays a significant mediating role in transforming positive customer experiences into long-term loyalty behaviors. Positive experiences alone may not automatically generate loyalty unless they first create favorable evaluations and satisfaction. Therefore, customer satisfaction can strengthen the relationship between the independent variables and true loyalty by transforming positive perceptions into long-term commitment.

In the context of *Honkai: Star Rail*, players who perceive valuable instant rewards, meaningful delayed rewards, immersive gameplay experiences, and engaging content marketing may develop higher levels of satisfaction. This satisfaction may subsequently encourage stronger commitment, continued participation, and genuine loyalty toward the game. Therefore, the following mediation hypotheses are proposed:

H5a: Customer Satisfaction mediates the relationship between Rewards and True Loyalty.

H5b: Customer Satisfaction mediates the relationship between Flow Experience and True Loyalty.

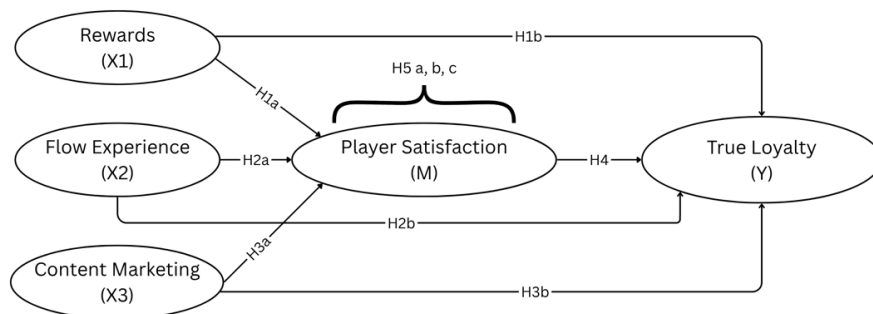
H5c: Customer Satisfaction mediates the relationship between Content Marketing and True Loyalty.

2.9.6 Conceptual Framework

The conceptual framework of this study is developed based on Relationship Marketing Theory and Customer Loyalty Theory, together with previous empirical studies on digital gaming and consumer behavior. As illustrated in Figure 2.3., the framework proposes that Rewards, Flow Experience, and Content Marketing serve as the independent variables that influence True Loyalty, both directly and indirectly through the mediating role of Player Satisfaction. Rewards are expected to enhance players' perceptions of value and achievement, Flow Experience is expected to create immersive and enjoyable gameplay experiences, and Content Marketing is expected to strengthen players' engagement and relationships with the game through continuous communication and community interaction.

These factors are proposed to positively influence Player Satisfaction, which subsequently promotes the development of True Loyalty. In addition, the framework assumes that Rewards, Flow Experience, and Content Marketing may also have direct effects on True Loyalty, indicating that players may develop long-term commitment toward *Honkai: Star Rail* not only through satisfaction but also through the direct influence of rewarding experiences, immersive gameplay, and effective marketing communications. Accordingly, Player Satisfaction is hypothesized to mediate the relationships between each independent variable and True Loyalty, providing a comprehensive explanation of the factors contributing to sustained player loyalty in live-service *gacha* games.

Figure 9.3. Conceptual Framework



Source: Modified from Fernandes et al. (2024)

CHAPTER III

METHODOLOGY

3.1 Research Design

This study employs a quantitative research approach with an explanatory research design to examine the relationships among Rewards, Flow Experience, Content Marketing, Player Satisfaction, and True Loyalty in the context of *Honkai: Star Rail*. Quantitative research is suitable as it allows the researcher to collect numerical data and statistically analyse the relationships between variables for the purpose of testing the proposed conceptual framework and hypotheses. Bougie and Sekaran (2025) mention that quantitative research is suitable to studies that seek to test relationships between variables by using objective measurement and statistical analysis.

The explanatory research design is adopted as the main aim of this study is to examine the research problem presented in Section 1.2 through explaining the causal relationships among the research variables. More precisely, the study seeks to investigate the influence of rewards, flow experience, and content marketing on player retention and the fostering of long-term loyalty towards *Honkai: Star Rail*, considering the context of its dynamic metagame, player concerns about power creep, and investment anxieties of players with different playstyles. Hence, the explanatory design is appropriate to empirically test the proposed hypotheses and examine the relationships between the variables in the conceptual framework (Saunders et al., 2019).

The target respondents of this study are the players of *Honkai: Star Rail* in Indonesia. The data for the empirical test of the proposed structural model will be collected using a structured questionnaire using a five-point Likert scale. The questionnaire will be distributed to the Indonesian *Honkai: Star Rail* community in social media. Respondents will be able to express their level of agreement with statements that measure each research construct. The structural equation modeling—partial least squares (PLS-SEM) approach using SmartPLS 4 software will be used to analyse the quantitative data collected from the survey. We apply PLS-SEM because it allows the simultaneous analysis of several relationships between latent

variables, i.e., direct and mediating effects, and is appropriate for explanatory research with complex conceptual models (Hair et al., 2021).

3.2 Population and Sampling

The population of this study consists of *Honkai: Star Rail* players who are located in the Greater Jakarta (Jabodetabek) area, which encompasses Jakarta, Bogor, Depok, Tangerang, and Bekasi. This region was chosen because it is the largest metropolitan area in Indonesia, with a large number of mobile gamers who are active in online gaming forums and social media.

This region is one of the country's economic and digital hubs, providing access to a diverse demographic of *Honkai: Star Rail* players with different backgrounds and gaming experiences. Therefore, the participants of Jabodetabek must have enough knowledge and understanding of the reward systems of the game, the gameplay mechanics, the Hoyoverse's content marketing, the satisfaction of each players and the development of loyalty that makes them appropriate subjects for this research.

In an effort to select the respondents most relevant to the research objective, the study employs a non-probability sampling technique called purposive sampling. Purposive sampling is a judgemental sampling strategy wherein respondents are chosen based on some criteria deemed appropriate for the study, as defined by Bougie and Sekaran (2025). This method is appropriate because the study requires participants to have enough experience with *Honkai: Star Rail* to offer meaningful assessments of the factors evaluated in the conceptual framework.

To ensure that the respondents have sufficient experience to evaluate the constructs studied in this research, the respondents must meet the following criteria.

1. Respondents must be at least 18 years of age: This is to ensure that the participants are recognised legally as adults and are able to give their informed consent to take part in the study. Also, adult respondents are expected to be more mature and consistent in their judgement of their gaming experience, their perceptions of rewards, flow experience, satisfaction and loyalty.

2. Respondents must reside within the Greater Jakarta (Jabodetabek) area: The sample must reside in one of the five municipalities or regencies that comprise the Greater Jakarta metropolitan area, namely Jakarta, Bogor, Depok, Tangerang, or Bekasi. This criterion ensures that all respondents belong to the target population defined in this study and represent the active community of *Honkai: Star Rail* players within Indonesia's largest metropolitan region.
3. Respondents must have played *Honkai: Star Rail*: To ensure respondents possess sufficient experience to evaluate the study's core variables, the sample is restricted to active participants who have progressed past the introductory phase of *Honkai: Star Rail*. Specifically, eligible individuals must have achieved at least Trailblaze Level 20 (the player progression system of the game), advance through the prologue level (Herta Space Station) and at least through the first major stage (Jarilo-VI / Belobog), and fully unlocked the Warp (*gacha*) system to obtain at least one five-star character from an in-game banner.

Setting the baseline at these requirements ensures that participants have moved past superficial first impressions and are deeply embedded in the game's core loop. This is to ensure that a player has interacted with the broader narrative structure, managed character progression resources, and experienced the time-gated nature of live-service events, guaranteeing that the collected data reflects informed, reliable evaluations of both the gameplay ecosystem and its monetization model.

To establish the minimal sample size, G*Power 3.1.9.7 performed an a priori power analysis using the F-test family (Linear Multiple Regression: Fixed Model, R^2 Deviation from Zero). The analysis employed an effect size (f^2) of 0.15 (medium effect), a significance level (α) of 0.05, a statistical power ($1 - \beta$) of 0.95, and four predictors from the conceptual framework. Figure 3.1. below shows the result that the minimum required sample size was 129 responses. To improve the reliability of the analysis and anticipate partial or invalid responses, the researcher will aim for a sample size that exceeds the minimum need. Additionally, Hair et al. (2021) also suggest that sample size in SEM-PLS should reflect the complexity of the structural

model, particularly the largest number of paths directed at an endogenous construct. In this study, Player Satisfaction receives three direct paths from the three independent variables, so the minimum sample size of 129 respondents is considered adequate. To improve reliability and account for invalid responses, the researcher will target a sample size above this minimum requirement.

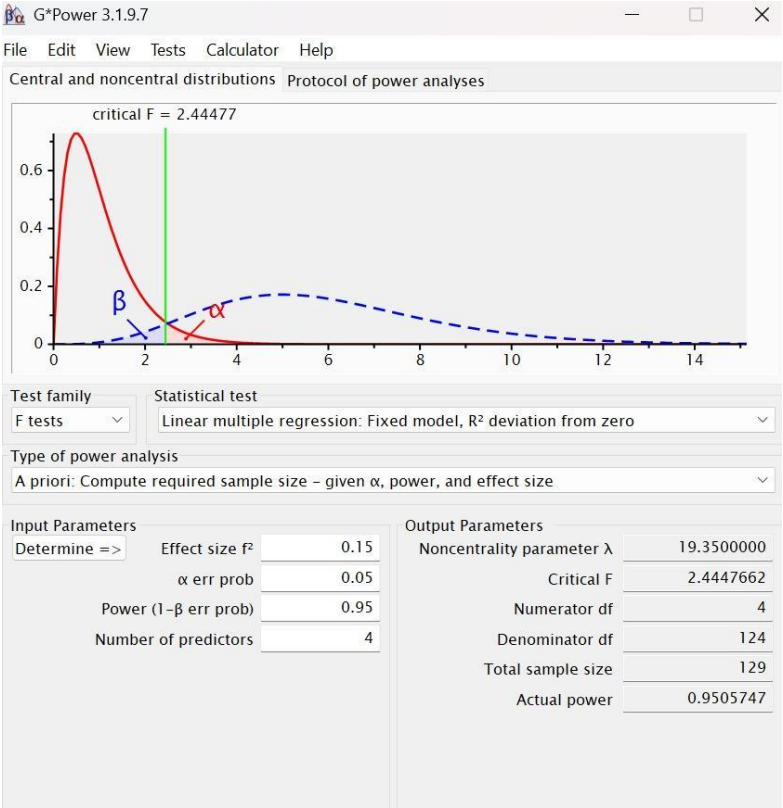


Figure 10.1. G*Power Graph for Minimum Sample Size

Source: Generated from G*Power 3.1.9.7.

3.3 Data Collection

The main tool used for primary data collection was a structured online questionnaire (Bougie & Sekaran, 2025). The questionnaire was made with Google Forms and distributed electronically to members of the *Honkai: Star Rail* Indonesia online community through various social media platforms, including Discord, WhatsApp, and Facebook. Furthermore, the questionnaire was made available through a QR code that was displayed and distributed during an anime, manga and collectibles convention, which enabled potential respondents to access the questionnaire directly on their mobile devices and submit their responses

electronically. It would allow you to collect data from eligible participants at a physical event, while retaining the convenience and efficiency of an online survey. The use of an online survey was advantageous in how data was organised and reduced the chance of manual data-entry errors, and it offered a convenient platform for the participants to take part (Bell et al., 2022).

The questionnaire is structured in three sections. The first part includes screening questions to determine if people are eligible for this research, such as gender, age, location, and their experience of playing *Honkai: Star Rail*. Respondents who satisfy all screening criteria will gain access to subsequent sections of questionnaire.

The second section collected demographic information and gaming profiles of the respondents. This section includes questions regarding gender, age, occupation, domicile, length of playing *Honkai: Star Rail*, and monthly expenditure on the game. These data are collected to describe the characteristics of the respondents and provide a general profile of the study participants.

The third section consists of statements measuring respondents' perceptions and experiences related to *Honkai: Star Rail*. The statements cover various aspects of the game, including players' perceptions of the rewards they receive, the quality of their gameplay experience, the effectiveness of HoYoverse's promotional and communication activities, their overall evaluation of the game, and their willingness to continue playing and recommend the game to others. Responses are measured using a five-point Likert scale, allowing respondents to indicate their level of agreement with each statement, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree (Likert, 1932). The collected responses will subsequently be analyzed using Structural Equation Modeling–Partial Least Squares (PLS-SEM) with SmartPLS 4 to evaluate the proposed hypotheses and conceptual framework (Hair et al., 2021).

3.4 Operational Variables

The operational variables describe the research constructs, operational definitions, measurement indicators, and questionnaire items employed in this study. All characteristics are measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Table 3.2. Operation of Variables

Variable	Operational Definition	Code	Items	Research Source	Scale
Rewards (X1)	Players' perceptions of the rewards provided by <i>Honkai: Star Rail</i> , including their usefulness, value, motivational effect, and contribution to the overall gameplay experience.	RW1	The game provides sufficient rewards for my participation in gameplay activities.	Adapted from Fernandes et al. (2024); Hamari & Koivisto (2015); Teng et al. (2022)	Likert 1–5
		RW2	The rewards provided by the game are useful for my gameplay progression.		
		RW3	Receiving rewards from the game gives me a sense of accomplishment.		
		RW4	The rewards offered by the game motivate me to continue playing.		

Variable	Operational Definition	Code	Items	Research Source	Scale
		RW5	Receiving rewards from the game makes the gameplay experience more enjoyable.		
Flow Experience (X2)	The extent to which players experience immersion, concentration, enjoyment, control, and time distortion while playing <i>Honkai: Star Rail</i> .	FE1	I'm fully engaged while playing <i>Honkai: Star Rail</i> .	Adapted from Csikszentmihalyi (1990); Hamari et al. (2015); Teng et al. (2022)	Likert 1–5
		FE2	I enjoy playing <i>Honkai: Star Rail</i> .		
		FE3	I feel in control of my actions while playing the game.		
		FE4	I feel I want to keep playing <i>Honkai: Star Rail</i> .		

Variable	Operational Definition	Code	Items	Research Source	Scale
		FE5	Playing the game completely absorbs my attention.		
Content Marketing (X3)	Players' perceptions of HoYoverse's marketing communications, including the informativeness, entertainment value, engagement, and consistency of its promotional content.	CM1	HoYoverse provides useful information regarding upcoming game content updates.	Adapted from de Vries et al. (2012); Ashley & Tuten (2015); Hollebeek & Macky (2019); Pulizzi (2012)	Likert 1–5
		CM2	The promotional content released by HoYoverse is interesting.		
		CM3	Developer livestream content increases my interest in the game.		
		CM4	HoYoverse consistently communicates future game development.		

Variable	Operational Definition	Code	Items	Research Source	Scale
		CM5	The marketing content increases my confidence in the future development of the game.		
Player Satisfaction (M)	Players' overall evaluation of their experiences with <i>Honkai: Star Rail</i> based on expectation fulfilment, perceived value, and overall satisfaction.	PS1	<i>Honkai: Star Rail</i> meets my expectations.	Adapted from Oliver (2015); Fornell et al. (1996); Kotler & Keller (2022)	Likert 1–5
		PS2	Playing <i>Honkai: Star Rail</i> is worth the effort I invest.		
		PS3	Overall, I am satisfied with <i>Honkai: Star Rail</i> .		
		PS4	My experience with <i>Honkai: Star Rail</i> has been positive.		
		PS5	Choosing to play <i>Honkai: Star Rail</i> was		

Variable	Operational Definition	Code	Items	Research Source	Scale
			a good decision.		
True Loyalty (Y)	Players' long-term commitment to continue playing and supporting <i>Honkai: Star Rail</i> , reflected through favorable attitudes, continued participation, recommendation intentions, and commitment.	TL1	<i>Honkai: Star Rail</i> is my preferred game among similar games.	Adapted from Dick & Basu (1994); Oliver (1999); Fernandes et al. (2024)	Likert 1–5
		TL2	I would recommend <i>Honkai: Star Rail</i> to other people.		
		TL3	I intend to remain committed to <i>Honkai: Star Rail</i> for a long time.		
		TL4	I would continue playing <i>Honkai: Star Rail</i> even if many competing games are available.		

Variable	Operational Definition	Code	Items	Research Source	Scale
		TL5	I feel emotionally attached to <i>Honkai: Star Rail</i> .		

3.5 Data Analysis Techniques

The research questions and objectives will be addressed through Structural Equation Modelling-Partial Least Squares (SEM-PLS) analysis. The purpose of the research is to explore the relationship between independent variables rewards, flow experience and content marketing, mediating variable player satisfaction and dependent variable true loyalty. The analysis is to determine the level of relationship between these factors including their direct effects on the true loyalty or indirect effects through the mediating role of Player Satisfaction. Also, the overall quality of the proposed structural model will be evaluated by its ability to support the hypotheses based on several evaluation criteria.

The analysis was performed using descriptive analysis and then the outer model (measurement model) and inner model (structural model) were tested (Ringle et al., 2020). The convergent validity of the outer model will be assessed using loading factors and Average Variance Extracted (AVE), discriminant validity will be assessed using Heterotrait-Monotrait Ratio (HTMT) and cross loading, and reliability will be assessed using Cronbach's Alpha and Composite Reliability (CR). Coefficient of determination (R^2), Variance Inflation Factors (VIF), hypothesis testing, f^2 test and Importance-Performance Map Analysis (IPMA) will be used to study Inner model.

3.5.1 Descriptive Analysis

Descriptive analysis is used to review and describe the characteristics of the respondents and distribution of questionnaire responses. The descriptive statistics provide a description of the data collected without making any inferences which

helps the researchers to gain a better understanding of the profile of the respondents and general patterns of responses (Bougie & Sekaran, 2025). In this research, descriptive analysis will be used to describe the demographic and gameplay of the respondents such as age, occupation, domicile, how long and often they have played *Honkai: Star Rail* and the gaming cost per month. Descriptive statistics such as frequency, percentage, mean and standard deviation will also be calculated for each item in the questionnaire to summarise the respondents' perspectives about the game. These descriptive results offer a preliminary understanding of the data before conducting the SEM-PLS analysis for hypothesis testing.

3.5.2 Structural Equation Modelling (SEM) - Partial Least Square (PLS)

Structural Equation Modeling-Partial Least Squares (SEM-PLS) is a multivariate statistical analytic technique that examines correlations between several latent variables at the same time. In contrast to conventional regression analysis, SEM-PLS allows researchers to estimate both the measurement model (outer model), which evaluates the relationships between latent constructs and their observed indicators, and the structural model (inner model), which assesses the causal relationships among the latent constructs. PLS-SEM is predominantly prediction-oriented, making it ideal for exploratory and explanatory research including complicated research models with many variables and mediating interactions (Hair et al., 2021).

PLS-SEM was chosen as the analytical method for this study as it is well suited to investigating the proposed conceptual framework, which includes multiple independent variables, a mediating variable and a dependent variable. Furthermore, PLS-SEM does not require multivariate normality and can yield solid parameter estimates with moderate sample sizes, making it suitable for behavioral and marketing research (Hair et al., 2021). The analysis in this study will be carried out with SmartPLS 4, which includes detailed processes for analyzing both the measurement and structural models.

3.5.2.1 Outer Model - Structural Equation Modelling (SEM) - Partial Least Square (PLS)

3.5.2.1.1 Convergent Validity

Convergent validity is used to evaluate whether the indicators of a latent construct are highly correlated and effectively measure the same underlying concept. In SEM-PLS, convergent validity ensures that the measurement items adequately represent their respective constructs, thereby demonstrating that the indicators share a high proportion of common variance (Hair et al., 2021). Two commonly used measures are employed to assess convergent validity, namely the loading factors and the Average Variance Extracted (AVE).

Loading factors are used to measure the strength of the relationship between each observed indicator and its corresponding latent construct. According to Hair et al. (2021), the minimum acceptable loading factor is 0.70, indicating that the construct explains at least 50% of the indicator's variance. However, loadings between 0.40 and 0.70 may be retained if their removal does not substantially increase the overall reliability or validity of the measurement model, while loadings below 0.40 should generally be discarded.

The Average Variance Extracted (AVE) is an index of the average proportion of variance that is explained by a latent construct from its indicators in relation to variance due to measurement error. AVE of 0.50 or higher means that the construct explains over half of the variance of the indicators, which indicates adequate convergent validity. In contrast, an AVE value of lower than 0.50 indicates that the indicators are not good enough to represent the latent construct (Hair et al., 2021). Thus, constructs that meet the two suggested indicator loading and AVE criteria are considered to have adequate convergent validity.

3.5.2.1.2 Discriminant Validity

Discriminant validity tests whether each latent construct is empirically distinct from other constructs in the research model. Discriminant validity in SEM-PLS ensures that indicators related to one construct measure only that construct and not stronger correlations with other constructs. The assessment of discriminant validity is crucial as it confirms that each construct represents a unique concept and is not overlapping with other constructs in the model (Hair et al., 2021).

There are a few techniques for assessing discriminant validity in PLS-SEM, such as the Fornell–Larcker criterion, cross-loadings, and the Heterotrait–Monotrait Ratio (HTMT). Hair et al. (2021) indicate that the HTMT criterion is the preferred approach, as it provides a more sensitive evaluation of discriminant validity compared to traditional techniques. A variable is regarded to have adequate discriminant validity if the HTMT value is less than 0.90 which means that it is sufficiently different from the other constructs in the model.

Furthermore, each indicator should load highest on the variable it is supposed to measure compared to the other variables (cross loadings). When these conditions are met, it suggests that the measurement model has adequate discriminant validity (Hair et al., 2021).

3.5.2.1.3 Reliability

The reliability of measurement instruments is a crucial factor in research studies to ensure consistency and dependability of collected data. Reliability analysis tests if the indicators used to measure a latent construct yield stable and consistent results thus decreasing measurement error and increasing the credibility of the research findings. In SEM-PLS, the reliability is assessed by testing the internal consistency of the measurement model to see if the indicators are measuring the same underlying construct (Hair et al., 2021).

Reliability in PLS-SEM is measured using two widely used indicators, namely, Cronbach's Alpha (CA) and Composite Reliability (CR). Cronbach's Alpha is an indicator of the internal consistency of a construct that assumes that all indicators contribute equally to the measurement of the latent variable. As noted by Hair et al. (2021), a Cronbach's Alpha value of 0.70 or higher signifies acceptable internal consistency, while values exceeding 0.80 indicate good reliability, and those above 0.90 reflect excellent reliability.

Alongside Cronbach's Alpha, Composite Reliability (CR) is regarded as a more suitable measure of internal consistency in PLS-SEM, as it takes into account the varying outer loadings of individual indicators. Hair et al. (2021) suggest that Composite Reliability values should fall between 0.70 and 0.95. Values below 0.70 denote inadequate internal consistency, while values surpassing 0.95 may imply that the indicators are excessively similar and potentially redundant. Consequently,

constructs that meet the recommended thresholds for both Cronbach's Alpha and Composite Reliability are deemed to possess satisfactory measurement reliability.

3.5.2.2 Inner Model - Structural Equation Modelling (SEM) - Partial Least Square (PLS)

3.5.2.2.1 Coefficient Determination (R^2)

The coefficient of determination (R^2) serves as a statistical indicator that quantifies the proportion of variance in a dependent construct that can be elucidated by its predictor variables. Within the framework of SEM-PLS, the R^2 value is instrumental in assessing the explanatory strength of the structural model, as it reflects the extent to which independent variables account for fluctuations in the dependent constructs. A higher R^2 value signifies that a larger share of the variance is elucidated by the model, implying enhanced explanatory capability and superior predictive performance (Hair et al., 2021).

The calculation of the coefficient of determination is performed for each dependent construct within the structural model. Hair et al. (2021) suggest that R^2 values of 0.75, 0.50, and 0.25 are interpreted as substantial, moderate, and weak, respectively; however, the acceptable threshold for explanatory power is contingent upon the specific research context and discipline. In this study, the R^2 values for Player Satisfaction and True Loyalty will be examined to see how well the proposed independent variables explain differences in these constructs. Higher R^2 values indicate that the structural model has higher explanatory power and supports the proposed relationships between the research variables more strongly.

3.5.2.2.2 Variance Inflation Factors (VIF)

The Variance Inflation Factor (VIF) is a statistical tool to test the existence of multicollinearity among predictor constructs in a research setting. Multicollinearity occurs when two or more independent variables are highly correlated, which may adversely affect the stability and accuracy of the estimated path coefficients. In the SEM-PLS framework, the multicollinearity assessment is an important step in the structural model assessment, since a high degree of collinearity could interfere with the interpretation of the relationships between the latent constructs (Hair et al., 2021).

The severity of multicollinearity among predictor constructs was assessed using the Variance Inflation Factor (VIF) which measures the extent to which the variance of an estimated regression coefficient is increased because of correlation among the predictor constructs. Hair et al. (2021) assert that VIF values should remain below 3.0, signifying that multicollinearity does not pose a significant issue within the structural model. While values under 5.0 are typically deemed acceptable, lower VIF values are favored as they reflect weaker correlations among predictor constructs and yield more dependable estimates of the path coefficients. This study will analyze the VIF values of the predictor constructs to confirm that multicollinearity does not negatively impact the estimation of the relationships among Rewards, Flow Experience, Content Marketing, Player Satisfaction, and True Loyalty. When all VIF values meet the suggested threshold, the structural model is regarded as devoid of problematic multicollinearity (Hair et al., 2021).

3.5.2.2.3 Hypothesis Testing

Hypothesis testing is essential in assessing the structural model since it indicates whether the proposed connections among the research variables are statistically significant according to the empirical data. In the SEM-PLS context, hypothesis testing is conducted by evaluating the significance and direction of the relationships between latent constructs using the bootstrapping method. This analysis provides statistical measures such as path coefficients (β), t-statistics, and p-values that are used to determine whether the proposed research hypotheses are supported (Hair et al., 2021).

The path coefficient (β) quantifies the strength and directionality of the relationship between the two latent constructs, and the t-statistic and p-value quantify the statistical significance of that relationship. As noted by Hair et al. (2021), a hypothesis is deemed supported when the t-statistic surpasses 1.96 and the p-value is below 0.05 ($p < 0.05$) at a 5% significance threshold for a two-tailed test. In contrast, hypotheses with t-statistics lower than 1.96 or p-values equal to or exceeding 0.05 ($p \geq 0.05$) are regarded as unsupported. This study will apply these criteria to evaluate the direct and indirect relationships among Rewards, Flow Experience, Content Marketing, Player Satisfaction, and True Loyalty, thus

determining whether the proposed hypotheses are substantiated by the empirical data.

3.5.2.2.4. Effect Size (f^2 Test)

In SEM-PLS modeling, the effect size (f^2) is a statistical measure used to evaluate the specific contribution of an exogenous construct to the explanatory power of an endogenous construct. While the coefficient of determination (R^2) indicates the overall variance explained within the model, the f^2 statistic assesses the individual impact of each predictor by measuring the change in the R^2 value when a specific exogenous construct is omitted (Hair et al., 2021). This analysis will provide a deeper insight into the relative importance of each predictor variable.

The f^2 statistic is calculated by comparing the model's R^2 value with and without the predictor construct. According to Hair et al. (2021), f^2 values of 0.02, 0.15, and 0.35 signify small, medium, and large effect sizes, respectively, whereas values below 0.02 indicate that the predictor exerts no substantive effect on the endogenous construct. In this study, the f^2 effect size will be examined to evaluate the individual contributions of Rewards, Flow Experience, Content Marketing, and Player Satisfaction. Higher f^2 values will demonstrate that a predictor construct plays a more substantial role in explaining the variance of the endogenous constructs within the proposed framework.

3.5.2.2.5. Importance-Performance Map Analysis (IPMA)

Importance–Performance Map Analysis (IPMA) is an advanced extension of PLS-SEM that combines the importance and performance of predictor constructs to generate practical managerial insights. Standard structural model assessment only tell whether relationships are statistically significant. The IPMA goes beyond this and tells us which constructs have the strongest impact on a target construct and how they are currently performing. Therefore, researchers can identify priority areas for strategic improvement by simultaneously evaluating total effects and average performance scores (Ringle & Sarstedt, 2016).

In an IPMA context, ‘importance’ is operationalized as the total effect of an exogenous construct on the respective target variable selected, reflecting the relative

contribution of this construct to the target variable. Conversely, “performance” is calculated using average latent variable scores, scaled between 0 and 100, with higher scores indicating better performance (Ringle & Sarstedt, 2016). So constructs with high importance and low performance are very critical priority zones where managerial interventions will have most substantial impact.

In this study, IPMA will be used to assess the relative importance and performance of Rewards, Flow Experience, Content Marketing, and Player Satisfaction. By mapping these predictors against the target construct of True Loyalty, this analysis will provide actionable recommendations for enhancing player loyalty within *Honkai: Star Rail*.

CHAPTER IV

FINDINGS, ANALYSIS AND DISCUSSION

4.1 Overview

4.1.1 Data Collection

The data collection for this research was performed by creating an online questionnaire which was distributed through Google Forms. The responses were collected by the questionnaire from July 2026 to August 2026. The criteria written in the questionnaire is carefully thought through with the intended targeted demographic to stay relevant to the research objectives. The final count of valid responses surpassed the minimum necessary sample size of 129 respondents, with a total of 143 respondents, suggesting that the sample size is more than sufficient for the PLS-SEM analysis.

4.1.2 Screening Questionnaire

Prior to the commencement of the main questionnaire, participants were evaluated against the established eligibility criteria of the study. These criteria were designed to ensure that participants possessed adequate experience with *Honkai: Star Rail*, enabling them to provide pertinent evaluations regarding the variables of this study. Those who did not fulfil any of these requirements were excluded from the subsequent analysis.

The following table below illustrates the outcomes of the participant screening process:

Table 3.1. Respondent Screening Criteria

Respondent Criteria	Yes		No	
	Number	Percentage (%)	Number	Percentage (%)
Minimum age of 18 years old	143	100%	0	0%
Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) residents	143	100%	0	0%

Respondent Criteria	Yes		No	
	Number	Percentage (%)	Number	Percentage (%)
Current or former <i>Honkai: Star Rail</i> players	143	100%	0	0%
Achieved Trailblazer Level 20 in <i>Honkai: Star Rail</i>	143	100%	0	0%
Acquired at least one five-star character using the “Warp” gacha mechanic in <i>Honkai: Star Rail</i>	143	100%	0	0%
Have completed the <i>Jarilo-VI/Belobog</i> storyline in <i>Honkai: Star Rail</i>	143	100%	0	0%

Source: Data Processing (2026)

4.2 Respondent Profile

The respondents were required to meet specific criteria based on several demographic and gaming-related factors, including a minimum of 18 years old, reside within the specified study area, have played or be currently playing *Honkai: Star Rail*, have achieved at least Trailblaze Level 20, have acquired at least one five-star character, and have completed the *Jarilo-VI/Belobog* storyline.

To ensure each criteria were fulfilled, the first section of the questionnaire included questions designed to filter those respondents. The respondents’ profiles included variables such as gender, age, place of residence, occupation, duration of playing *Honkai: Star Rail*, spending status and average expenditure on the game. The distribution of respondents within each category is summarized using respondent frequency and percentage. This profile serves to provide contextual information regarding the characteristics and backgrounds for the respondents in the research, thereby establishing a general description of the sample utilized for the analysis.

4.2.1 Gender

According to the data presented in Table 4.2, the respondent profile based on gender indicates that male participants constituted the majority of the sample. A total of 86 respondents, representing 60.14% of the sample, were male. This was followed by 57 female respondents, accounting for 39.86% of the total sample. The distribution therefore shows that the *Honkai: Star Rail* player base is predominantly male.

Table 4.2. Respondent Profile - Gender

Gender	Number of Respondents	Percentage (%)
Male	86	60.14%
Female	57	39.86%
Total	143	100 %

Source: Data Processing (2026)

4.2.2 Age

Based on the data in Table 4.3, the largest proportion of respondents belonged to the 18–24 years age group, consisting of 80 respondents or 55.94% of the total sample. This was followed by the 25–34 years age group, with 50 respondents representing 34.97%. The 35–44 years category consisted of 13 respondents or 9.09%, while no respondents were included in the 45 years and above category. These findings indicate that the majority of *Honkai: Star Rail* players represented in this study were young adults, particularly those between 18 and 24 years old.

Table 5.3. Respondent Profile - Age

Age Group	Number of Respondents	Percentage (%)
18–24 years	80	55.94%
25–34 years	50	34.97%
35–44 years	13	9.09%
45 years and above	0	0%
Total	143	100 %

Source: Data Processing (2026)

4.2.3 Domicile

As illustrated in Table 4.4, respondents were distributed across the five areas within the Jabodetabek region. Jakarta contributed the largest proportion of

respondents, with 61 individuals representing 42.66% of the total sample. This was followed by Bogor, with 27 respondents or 18.88%, and Depok, with 22 respondents or 15.38%. Bekasi accounted for 17 respondents, representing 11.89%, while Tangerang had the smallest proportion, with 16 respondents or 11.19%. These findings indicate that respondents from Jakarta formed the largest representation within the study sample.

Table 6.4. Respondent Profile - Domicile

Domicile	Number of Respondents	Percentage (%)
Jakarta	61	42.66%
Bogor	27	18.88%
Depok	22	15.38%
Tangerang	16	11.19%
Bekasi	17	11.89%
Total	143	100 %

Source: Data Processing (2026)

4.2.4 Occupation

Based on the data presented in Table 4.5, students represented the largest occupational category, consisting of 68 respondents or 47.55% of the total sample. This was followed by employees, who accounted for 41 respondents or 28.67%. Freelancers represented 17 respondents or 11.89%, while entrepreneurs accounted for 12 respondents or 8.39%. In addition, four respondents were unemployed, representing 2.80% of the sample, whereas one respondent, or 0.70%, reported an occupation classified under the other category. Overall, the occupational distribution shows that the sample was primarily composed of students and employees.

Table 7.5. Respondent Profile - Occupation

Occupation	Number of Respondents	Percentage (%)
Student	68	47.55%
Employee	41	28.67%
Entrepreneur	12	8.39%
Freelancer	17	11.89%
Unemployed	4	2.80%
Others	1	0.70%
Total	143	100 %

Source: Data Processing (2026)

4.2.5 Length of Playing *Honkai: Star Rail*

According to the data in Table 4.6, the largest proportion of respondents reported having played *Honkai: Star Rail* for between one and two years, comprising 76 respondents or 53.15% of the total sample. This was followed by respondents who had played the game for more than two years, consisting of 49 individuals or 34.26%. Respondents who had been playing for between six and twelve months accounted for 14 respondents or 9.79%, while those who had played for less than six months represented the smallest group, with four respondents or 2.80%. These findings indicate that the majority of respondents had considerable experience playing *Honkai: Star Rail*, which is consistent with the study's screening criteria requiring respondents to possess sufficient familiarity with the game before completing the main questionnaire.

Table 8.6. Respondent Profile – Length of Play

Length of Play	Number of Respondents	Percentage (%)
Less than 6 months	4	2.80%
6 – 12 months	14	9.79%
1 – 2 years	76	53.15%
More than 2 years	49	34.26%
Total	143	100 %

Source: Data Processing (2026)

4.2.6 Frequency of Playing *Honkai: Star Rail*

According to the data presented in Table 4.7, the largest proportion of respondents reported playing *Honkai: Star Rail* one to two times per week, comprising 64 respondents or 44.76% of the total sample. This was followed by respondents who played the game more than three times per week, consisting of 54 individuals or 37.76%. Meanwhile, 25 respondents, representing 17.48% of the total sample, reported that they did not play the game every day and only played rarely. These findings indicate that the majority of respondents remain actively engaged with *Honkai: Star Rail*, with more than 80% of the sample reporting that they play the game at least one to two times per week.

Table 9.7. Respondent Profile – Frequency of Play

Frequency of Play	Number of Respondents	Percentage (%)
Not every day (Rarely)	25	17.48%
1- 2 times a week	64	44.76%
> 3 times a week	54	37.76%
Total	143	100 %

Source: Data Processing (2026)

4.2.7 Spending Status

In Table 4.8., the respondent profile according to spending status reveals that a substantial majority of the respondents had spent real money on *Honkai: Star Rail*. A total of 133 respondents, representing 93.01% of the total sample, reported having made real-money purchases in the game. In contrast, only 10 respondents, or 6.99%, identified themselves as free-to-play (F2P) players who had never spent real money on the game. This distribution indicates that the sample was predominantly composed of players with direct financial experience to manage their in-game purchases in *Honkai: Star Rail*.

Table 10.8. Respondent Profile – Spending Status

Spending Status	Number of Respondents	Percentage (%)
Yes	133	93.01%
No (I'm a Free-to-Play (F2P) player.)	10	6.99%
Total	143	100 %

Source: Data Processing (2026)

4.2.8 Average Spending on *Honkai: Star Rail*

According to the data presented in Table 4.9, the largest proportion of respondents reported an average spending amount of Rp. 480,000–Rp. 799,000, consisting of 39 respondents or 29.32% of those who had spent money on *Honkai: Star Rail*. This was followed by respondents spending Rp. 250,000–Rp. 479,000, representing 28 respondents or 21.05%, and those spending Rp. 800,000–Rp. 1,599,000, consisting of 24 respondents or 18.05%. The remaining respondents reported average spending of more than Rp. 1,600,000 (15.04%), Rp. 100,000–Rp.

249,000 (12.03%), and less than Rp. 100,000 (6.77%). Overall, the distribution shows that respondents who had spent real money on the game reported varying levels of expenditure, with the largest proportion falling within the Rp. 480,000–Rp. 799,000 category.

Note: This profile is based only on respondents who reported having spent real money on *Honkai: Star Rail* (n = 133).

Table 11.9. Respondent Profile – Average Spending

Average Spending	Number of Respondents	Percentage (%)
< Rp. 100,000	9	6.77%
Rp. 100,000 - Rp. 249.000	16	12.03%
Rp. 250,000 - Rp. 479.000	28	21.05%
Rp. 480,000 - Rp. 799.000	39	29.32%
Rp. 800,000 - Rp. 1.599.000	24	18.05%
> Rp. 1.600.000	20	15.04%
Total	133	100 %

Source: Data Processing (2026)

4.3 Descriptive Study

This section presents a descriptive overview of the respondents' answers to the questionnaire by measuring the five main variable of this study: Rewards, Flow Experience, Content Marketing, Player Satisfaction, and True Loyalty. A 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree") was utilized to examine the data, where higher mean values reflect more favorable evaluations by the respondents. To interpret the mean values, an interval width was applied based on the scale categorization formula by Durianto et al. (2004):

$$Interval\ Width = \frac{Maximum\ score - Minimum\ score}{Number\ of\ Categories} = \frac{5 - 1}{5} = 0.8$$

From this, five Likert Scale evaluation intervals can be classified as illustrated by the table below:

Table 12.10. Likert Scale Classification

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

Source: Data Processing (2026)

The results of the respondent survey were gathered in Google Forms, where it was sorted into table form in Google Sheets, then imported to Microsoft Excel to be filtered into only containing the Likert Scale sections. This cleaned data was then imported to SmartPLS 4 software for analysis using the SEM-PLS method, which will be elaborated and explained in the following section.

4.3.1 Rewards

Based on Table 4.11, the highest mean score was obtained by RW2, with a value of 4.091, indicating that respondents generally perceived the rewards provided by the game as useful for their gameplay progression. This was followed by RW5, with a mean score of 4.042, while RW1 and RW3 both obtained a mean score of 3.958. The lowest mean score was recorded by RW4, with a value of 3.944, regarding rewards motivating respondents to continue playing. Overall, the Rewards variable obtained an average mean score of 3.999, indicating that respondents generally agreed with the statements related to rewards in *Honkai: Star Rail*. The standard deviation ranged from 0.774 to 0.899, with RW5 showing the most consistent responses and RW4 showing the greatest variation among respondents.

Table 13.11. Descriptive Study - Rewards

No.	Code	Indicator	Mean	Standard Deviation
1	RW1	The game provides sufficient rewards for my participation in gameplay activities.	3.958	0.783

No.	Code	Indicator	Mean	Standard Deviation
2	RW2	The rewards provided by the game are useful for my gameplay progression.	4.091	0.784
3	RW3	Receiving rewards from the game gives me a sense of accomplishment.	3.958	0.868
4	RW4	The rewards offered by the game motivate me to continue playing.	3.944	0.899
5	RW5	Receiving rewards from the game makes the gameplay experience more enjoyable.	4.042	0.774
Variable Average Score			3.999	0.822

Source: Data Processing (2026)

4.3.2 Flow Experience

Based on Table 4.12, the highest mean score was obtained by FE1, with a value of 4.070, indicating that respondents generally felt fully engaged while playing *Honkai: Star Rail*. This was followed by FE2, with a mean score of 4.014, and FE3, with a mean score of 3.979. FE4 obtained a mean score of 3.944, while the lowest mean score was recorded by FE5, with a value of 3.846, regarding the game completely absorbing respondents' attention. Overall, the Flow Experience variable obtained an average mean score of 3.971, indicating that respondents generally agreed with the statements related to their flow experience while playing the game. The standard deviation ranged from 0.791 to 0.861, with FE4 showing the most consistent responses and FE2 showing the greatest variation among respondents.

Table 14.12. Descriptive Study – Flow Experience

No.	Code	Indicator	Mean	Standard Deviation
1	FE1	I'm fully engaged while playing <i>Honkai: Star Rail</i> .	4.07	0.808
2	FE2	I enjoy playing <i>Honkai: Star Rail</i> .	4.014	0.861

No.	Code	Indicator	Mean	Standard Deviation
3	FE3	I feel in control of my actions while playing <i>Honkai: Star Rail</i> .	3.979	0.806
4	FE4	I feel I want to keep playing <i>Honkai: Star Rail</i> .	3.944	0.791
5	FE5	Playing <i>Honkai: Star Rail</i> completely absorbs my attention.	3.846	0.839
Variable Average Score			3.971	0.821

Source: Data Processing (2026)

4.3.3 Content Marketing

Based on Table 4.13, the highest mean score was obtained by CM2, with a value of 4.119, indicating that respondents generally found the promotional content released by HoYoverse interesting. This was followed by CM4, with a mean score of 4.014, while CM1 and CM5 both obtained a mean score of 3.937. The lowest mean score was recorded by CM3, with a value of 3.902, regarding developer livestream content increasing respondents' interest in the game. Overall, the Content Marketing variable obtained an average mean score of 3.982, indicating that respondents generally agreed with the statements related to HoYoverse's content marketing. In terms of response variation, the standard deviation ranged from 0.766 to 0.846, with CM4 showing the most consistent responses and CM5 showing the greatest variation among respondents.

Table 15.13. Descriptive Study – Content Marketing

No.	Code	Indicator	Mean	Standard Deviation
1	CM1	HoYoverse provides useful information regarding upcoming game content updates.	3.937	0.838
2	CM2	The promotional content released by HoYoverse is interesting.	4.119	0.78
3	CM3	Developer livestream content increases my interest in the game.	3.902	0.796

No.	Code	Indicator	Mean	Standard Deviation
4	CM4	HoYoverse consistently communicates future game development.	4.014	0.766
5	CM5	The marketing content increases my confidence in the future development of the game.	3.937	0.846
Variable Average Score			3.982	0.805

Source: Data Processing (2026)

4.3.4 Player Satisfaction

Based on Table 4.14, the highest mean score was obtained by PS5, with a value of 4.322, indicating that respondents generally considered choosing to play *Honkai: Star Rail* to be a good decision. This was followed by PS3, with a mean score of 4.238, and PS1, with a mean score of 4.084. PS4 obtained a mean score of 3.958, while the lowest mean score was recorded by PS2, with a value of 3.720, regarding whether playing the game was worth the effort invested. Overall, the Player Satisfaction variable obtained an average mean score of 4.064, indicating that respondents generally agreed with the statements related to their satisfaction with *Honkai: Star Rail*. The standard deviation ranged from 0.658 to 0.706, with PS3 showing the most consistent responses and PS5 showing the greatest variation among respondents.

Table 16.14. Descriptive Study – Player Satisfaction

No.	Code	Indicator	Mean	Standard Deviation
1	PS1	<i>Honkai: Star Rail</i> meets my expectations.	4.084	0.664
2	PS2	Playing <i>Honkai: Star Rail</i> is worth the effort I invest.	3.72	0.694
3	PS3	Overall, I am satisfied with <i>Honkai: Star Rail</i> .	4.238	0.658
4	PS4	My experience with <i>Honkai: Star Rail</i> has been positive.	3.958	0.688
5	PS5	Choosing to play <i>Honkai: Star Rail</i> was a good decision.	4.322	0.706
Variable Average Score			4.064	0.682

Source: Data Processing (2026)

4.3.5 True Loyalty

Based on Table 4.15, the highest mean score was obtained by TL5, with a value of 4.280, indicating that respondents generally felt emotionally attached to *Honkai: Star Rail*. This was followed by TL4, with a mean score of 4.252, and TL2, with a mean score of 4.154. TL1 obtained a mean score of 3.909, while the lowest mean score was recorded by TL3, with a value of 3.797, regarding respondents' intention to remain committed to the game for a long time. Overall, the True Loyalty variable obtained an average mean score of 4.078, indicating that respondents generally agreed with the statements related to their loyalty toward *Honkai: Star Rail*. The standard deviation ranged from 0.629 to 0.753, with TL2 showing the most consistent responses and TL3 showing the greatest variation among respondents.

Table 17.15. Descriptive Study – True Loyalty

No.	Code	Indicator	Mean	Standard Deviation
1	TL1	<i>Honkai: Star Rail</i> is my preferred game among similar games.	3.909	0.668
2	TL2	I would recommend <i>Honkai: Star Rail</i> to other people.	4.154	0.629
3	TL3	I intend to remain committed to <i>Honkai: Star Rail</i> for a long time.	3.797	0.753
4	TL4	I would continue playing <i>Honkai: Star Rail</i> even if many competing games are available.	4.252	0.694
5	TL5	I feel emotionally attached to <i>Honkai: Star Rail</i> .	4.28	0.714
Variable Average Score			4.078	0.692

Source: Data Processing (2026)

4.4 SEM-PLS Results

4.4.1 Outer Model Results

The outer model analysis examines the connections between latent constructs and their corresponding indicators within the measurement model. This

analysis was performed utilizing SmartPLS 4, based on the feedback from 143 respondents using a survey created in Google Forms.

4.4.1.1 Convergent Validity Test

Convergent validity serves to evaluate whether the indicators associated with each construct effectively measure the same fundamental concept. In this research, convergent validity was assessed using loading factor analysis and Average Variance Extracted (AVE). A loading factor of 0.70 or above is deemed acceptable. Indicators with loading factors ranging from 0.40 to 0.70 may still be included if their exclusion does not significantly enhance the reliability or validity of the measurement model, while indicators with values below 0.40 should typically be discarded. The initial loading factor results obtained from SmartPLS 4 are illustrated in Figure 4.1., followed by a comprehensive analysis of each construct.

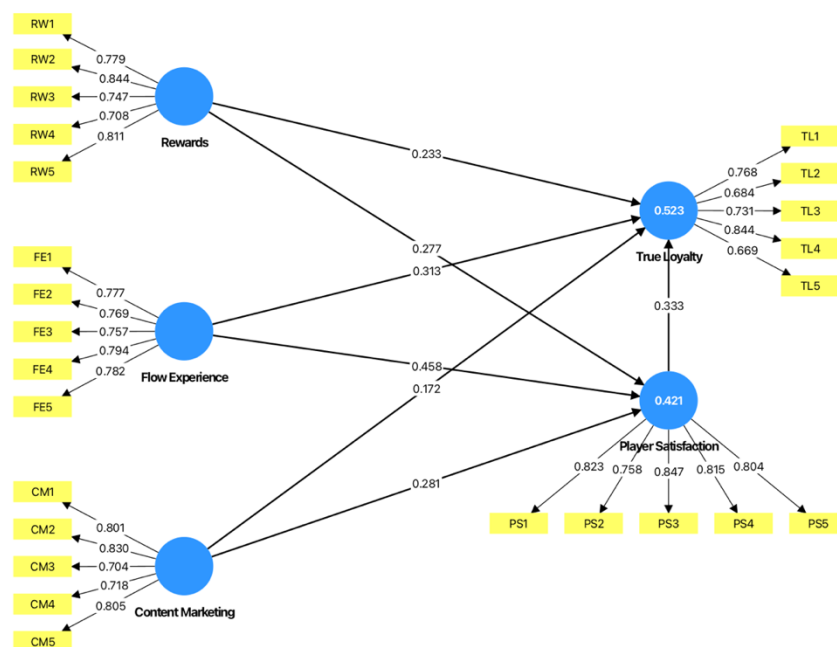


Figure 11.1. Loading Factor Analysis

Source: Data Processing (2026)

4.4.1.1.1 Outer Loading Analysis – Rewards

Based on the results presented in Table 4.16, all indicators of the Rewards variable obtained loading factors above the recommended threshold of 0.70. The first indicator (RW1), *“The game provides sufficient rewards for my participation*

in gameplay activities,” obtained a loading factor of 0.779. The second indicator (RW2), *“The rewards provided by the game are useful for my gameplay progression,”* obtained the highest loading factor of 0.844. The third indicator (RW3), *“Receiving rewards from the game gives me a sense of accomplishment,”* obtained a loading factor of 0.747, while the fourth indicator (RW4), *“The rewards offered by the game motivate me to continue playing,”* recorded the lowest loading factor of 0.708. Finally, the fifth indicator (RW5), *“Receiving rewards from the game makes the gameplay experience more enjoyable,”* obtained a loading factor of 0.811. Since all five indicators exceeded the 0.70 threshold, they are considered acceptable and can be retained to measure the Rewards variable.

Table 18.16. Outer Loading Analysis – Rewards

No.	Variable	Code	Indicator	Loading Factor
1	Rewards (RW)	RW1	The game provides sufficient rewards for my participation in gameplay activities.	0.779
2		RW2	The rewards provided by the game are useful for my gameplay progression.	0.844
3		RW3	Receiving rewards from the game gives me a sense of accomplishment.	0.747
4		RW4	The rewards offered by the game motivate me to continue playing.	0.708
5		RW5	Receiving rewards from the game makes the gameplay experience more enjoyable.	0.811

Source: Data Processing (2026)

4.4.1.1.2 Outer Loading Analysis – Flow Experience

Based on the results presented in Table 4.17, all indicators of the Flow Experience variable obtained loading factors above the recommended threshold of 0.70. The first indicator, FE1, *“I’m fully engaged while playing Honkai: Star Rail,”* obtained a loading factor of 0.777. The second indicator (FE2), *“I enjoy playing Honkai: Star Rail,”* obtained a loading factor of 0.769, while the third indicator (FE3), *“I feel in control of my actions while playing Honkai: Star Rail,”* obtained the lowest loading factor of 0.757. The fourth indicator (FE4), *“I feel I want to keep playing Honkai: Star Rail,”* recorded the highest loading factor of 0.794. Finally,

the fifth indicator (FE5), “*Playing Honkai: Star Rail completely absorbs my attention,*” obtained a loading factor of 0.782. Since all five indicators are above the 0.70 threshold, they are considered suitable for measuring the Flow Experience variable and are retained for further analysis.

Table 19.17. Outer Loading Analysis – Flow Experience

No.	Variable	Code	Indicator	Loading Factor
1	Flow Experience (FE)	FE1	I’m fully engaged while playing <i>Honkai: Star Rail</i> .	0.777
2		FE2	I enjoy playing <i>Honkai: Star Rail</i> .	0.769
3		FE3	I feel in control of my actions while playing <i>Honkai: Star Rail</i> .	0.757
4		FE4	I feel I want to keep playing <i>Honkai: Star Rail</i> .	0.794
5		FE5	Playing <i>Honkai: Star Rail</i> completely absorbs my attention.	0.782

Source: Data Processing (2026)

4.4.1.1.3 Outer Loading Analysis – Content Marketing

According to the results presented in Table 4.18, all indicators associated with the Content Marketing variable achieved loading factor values above 0.70. The first indicator (CM1), “*HoYoverse provides useful information regarding upcoming game content updates,*” recorded a loading factor of 0.801. The second indicator (CM2), “*The promotional content released by HoYoverse is interesting,*” obtained the highest loading factor of 0.830. The third indicator (CM3), “*Developer livestream content increases my interest in the game,*” recorded the lowest loading factor of 0.704. The fourth indicator (CM4), “*HoYoverse consistently communicates future game development,*” obtained a value of 0.718. Lastly, the fifth indicator (CM5), “*The marketing content increases my confidence in the future development of the game,*” recorded a loading factor of 0.805. Therefore, all five indicators satisfy the minimum loading factor criterion and are retained to measure the Content Marketing variable.

Table 20.18. Outer Loading Analysis – Content Marketing

No.	Variable	Code	Indicator	Loading Factor
1	Content Marketing (CM)	CM1	HoYoverse provides useful information regarding upcoming game content updates.	0.801
2		CM2	The promotional content released by HoYoverse is interesting.	0.83
3		CM3	Developer livestream content increases my interest in the game.	0.704
4		CM4	HoYoverse consistently communicates future game development.	0.718
5		CM5	The marketing content increases my confidence in the future development of the game.	0.805

Source: Data Processing (2026)

4.4.1.1.4 Outer Loading Analysis – Player Satisfaction

The results in Table 4.19 indicate that all indicators used to assess Player Satisfaction have outer loading values exceeding 0.70. The first indicator (PS1), *“Honkai: Star Rail meets my expectations,”* obtained a loading factor of 0.823. The second indicator (PS2), *“Playing Honkai: Star Rail is worth the effort I invest,”* recorded the lowest loading factor of 0.758. The third indicator (PS3), *“Overall, I am satisfied with Honkai: Star Rail,”* obtained the highest loading factor of 0.847. The fourth indicator (PS4), *“My experience with Honkai: Star Rail has been positive,”* recorded a value of 0.815, while the fifth indicator (PS5), *“Choosing to play Honkai: Star Rail was a good decision,”* obtained a loading factor of 0.804. Since each indicator exceeded the minimum recommended threshold, all five indicators are considered acceptable and remain in the measurement model for the Player Satisfaction variable.

Table 21.19. Outer Loading Analysis – Player Satisfaction

No.	Variable	Code	Indicator	Loading Factor
1	Player Satisfaction (PS)	PS1	Honkai: Star Rail meets my expectations.	0.823
2		PS2	Playing Honkai: Star Rail is worth the effort I invest.	0.758
3		PS3	Overall, I am satisfied with Honkai: Star Rail.	0.847

No.	Variable	Code	Indicator	Loading Factor
4		PS4	My experience with Honkai: Star Rail has been positive.	0.815
5		PS5	Choosing to play Honkai: Star Rail was a good decision.	0.804

Source: Data Processing (2026)

4.4.1.1.5 Outer Loading Analysis – True Loyalty

The findings in Table 4.20 show that the outer loading values for the True Loyalty indicators ranged from 0.669 to 0.844. The first indicator (TL1), *“Honkai: Star Rail is my preferred game among similar games,”* obtained a loading factor of 0.768. The second indicator (TL2), *“I would recommend Honkai: Star Rail to other people,”* recorded a value of 0.684. The third indicator (TL3), *“I intend to remain committed to Honkai: Star Rail for a long time,”* obtained a loading factor of 0.731. The fourth indicator (TL4), *“I would continue playing Honkai: Star Rail even if many competing games are available,”* obtained the highest loading factor of 0.844. Finally, the fifth indicator (TL5), *“I feel emotionally attached to Honkai: Star Rail,”* recorded the lowest value of 0.669.

Although TL2 and TL5 are slightly below the recommended threshold of 0.70, their loading factors remain within the 0.40–0.70 range. Therefore, both TL2 and TL5 are still considered acceptable for retention, particularly in an exploratory study or where the measurement scale is relatively new or adapted to the context of the present research.

Table 22.20. Outer Loading Analysis – True Loyalty

No.	Variable	Code	Indicator	Loading Factor
1	True Loyalty (TL)	TL1	Honkai: Star Rail is my preferred game among similar games.	0.768
2		TL2	I would recommend Honkai: Star Rail to other people.	0.684
3		TL3	I intend to remain committed to Honkai: Star Rail for a long time.	0.731
4		TL4	I would continue playing Honkai: Star Rail even if many competing games are available.	0.844
5		TL5	I feel emotionally attached to Honkai: Star Rail.	0.669

Source: Data Processing (2026)

4.4.1.1.6 Summary of Outer Loading Analysis

Based on Table 4.21, 23 out of 25 indicators obtained loading factor values above the recommended threshold of 0.70. Two indicators of the True Loyalty variable, TL2 and TL5, recorded loading factors of 0.684 and 0.669, respectively. Although these values were slightly below 0.70, both indicators remained within the acceptable range for potential retention. Therefore, all indicators were retained for further evaluation through the subsequent convergent validity and reliability analyses.

Table 23.21. Summary of Outer Loading Analysis

Variable	Indicator	Loading Factor	Results
Rewards	RW1	0.779	Valid
	RW2	0.844	Valid
	RW3	0.747	Valid
	RW4	0.708	Valid
	RW5	0.811	Valid
Flow Experience	FE1	0.777	Valid
	FE2	0.769	Valid
	FE3	0.757	Valid
	FE4	0.794	Valid
	FE5	0.782	Valid
Content Marketing	CM1	0.801	Valid
	CM2	0.830	Valid
	CM3	0.704	Valid
	CM4	0.718	Valid
	CM5	0.805	Valid
Player Satisfaction	PS1	0.823	Valid
	PS2	0.758	Valid
	PS3	0.847	Valid
	PS4	0.815	Valid
	PS5	0.804	Valid
True Loyalty	TL1	0.768	Valid
	TL2	0.684	Accepted
	TL3	0.731	Valid
	TL4	0.844	Valid
	TL5	0.669	Accepted

Source: Data Processing (2026)

4.4.1.1.7 Average Variance Extracted (AVE)

The Average Variance Extracted (AVE) analysis was conducted to further assess the convergent validity of each construct. AVE measures the average amount

of variance that a latent construct explains in its indicators relative to measurement error. According to Hair et al. (2021), an AVE value of 0.50 or above indicates that a construct explains more than half of the variance in its indicators and, therefore, demonstrates adequate convergent validity.

The results of the AVE analysis are presented in Table 4.22. According to the table, all variables obtained AVE values above the recommended threshold of 0.50. Player Satisfaction recorded the highest AVE value at 0.656, followed by Rewards at 0.607, Flow Experience at 0.602, Content Marketing at 0.598, and True Loyalty at 0.550. These results indicate that all five variables meet the recommended AVE criterion and demonstrate adequate convergent validity. Therefore, all constructs can be retained for further analysis.

Table 24.22. Results of Average Variance Extracted

Variable	Average Variance Extracted (AVE)	Decision
Rewards	0.607	Valid
Flow Experience	0.602	Valid
Content Marketing	0.598	Valid
Player Satisfaction	0.656	Valid
True Loyalty	0.55	Valid

Source: Data Processing (2026)

Figure 4.2 shows the AVE values of the five constructs against the threshold of 0.50 to demonstrate the results of AVE. As shown in the figure, all constructs were above the minimum threshold which further supported that adequate convergent validity was achieved.

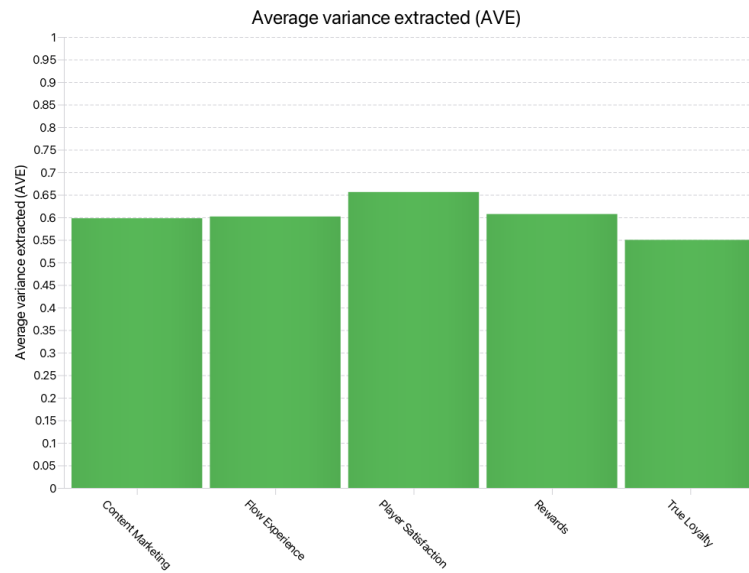


Figure 12.2. Average Variance Extracted Graph

Source: Data Processing (2026)

4.4.1.2 Discriminant Validity Test

Discriminant validity is used to determine whether each construct in the research model is empirically distinct from the other constructs. This test ensures that the indicators used to measure one construct are more strongly associated with their intended construct than with other constructs. In accordance with the analysis procedure stated in Chapter 3, discriminant validity in this study is assessed using cross-loadings, the Heterotrait-Monotrait Ratio (HTMT), and the Fornell-Larcker criterion. According to Hair et al. (2021), satisfactory discriminant validity is demonstrated when each measurement item has its highest loading on the construct it is intended to measure compared with the other constructs.

4.4.1.2.1 Heterotrait-Monotrait Ratio (HTMT)

The Heterotrait-Monotrait Ratio (HTMT) was used to assess discriminant validity between the constructs in the research model. According to Henseler et al. (2015), HTMT values below 0.85 indicate that the constructs are sufficiently distinct. Based on the results presented in Table 4.23, all HTMT values are below the recommended threshold. The highest value was found between Player Satisfaction and True Loyalty, at 0.752, while the lowest value was found between Content Marketing and Flow Experience, at 0.101. Therefore, all constructs meet

the HTMT criterion, indicating that the research model has established discriminant validity.

Table 25.23. Results of Heterotrait-Monotrait Ratio

	Content Marketing	Flow Experience	Player Satisfaction	Rewards	True Loyalty
Content Marketing					
Flow Experience	0.101				
Player Satisfaction	0.376	0.554			
Rewards	0.244	0.141	0.433		
True Loyalty	0.373	0.588	0.752	0.505	

Source: Data Processing (2026)

4.4.1.2.2 Fornell-Larcker Criterion

The Fornell-Larcker criterion was employed to further evaluate the discriminant validity of the constructs within the research model. This criterion involves comparing the square root of the Average Variance Extracted (AVE) for each construct against its correlations with other constructs. As illustrated in Table 4.24, the square root of AVE for each construct exceeds its correlation with the other constructs. Specifically, Content Marketing exhibited a diagonal value of 0.773, Flow Experience 0.776, Player Satisfaction 0.810, Rewards 0.779, and True Loyalty 0.742. Consequently, the findings suggest that all constructs satisfy the Fornell-Larcker criterion, thereby demonstrating sufficient discriminant validity.

Table 26.24. Results of Fornell-Larcker Criterion

	Content Marketing	Flow Experience	Player Satisfaction	Rewards	True Loyalty
Content Marketing	0.773				
Flow Experience	-0.017	0.776			
Player Satisfaction	0.334	0.482	0.81		
Rewards	0.221	0.105	0.387	0.779	

	Content Marketing	Flow Experience	Player Satisfaction	Rewards	True Loyalty
True Loyalty	0.329	0.495	0.632	0.433	0.742

Source: Data Processing (2026)

4.4.1.2.3 Cross-Loading

According to the findings illustrated in Table 4.25, each indicator achieved its peak cross-loading values on their corresponding constructs when compared to other constructs. For the Rewards variable, the indicators RW1, RW2, RW3, RW4, and RW5 exhibited loading values of 0.779, 0.844, 0.747, 0.708, and 0.811, respectively, all of which surpassed their cross-loading values on alternative constructs. In a similar vein, all indicators associated with Flow Experience, specifically FE1, FE2, FE3, FE4, and FE5, recorded their highest loading values on the Flow Experience construct, with values ranging from 0.757 to 0.794.

The indicators pertaining to Content Marketing, namely CM1, CM2, CM3, CM4, and CM5, also achieved their highest loading values on the Content Marketing construct, with values spanning from 0.704 to 0.830. A comparable trend was observed for Player Satisfaction, where the indicators PS1, PS2, PS3, PS4, and PS5 reached their highest loading values on their respective construct, ranging from 0.758 to 0.847. Lastly, all indicators of True Loyalty exhibited higher loading values on the True Loyalty construct compared to other constructs, with values ranging from 0.669 to 0.844.

Therefore, the cross-loading results suggest that each indicator is more closely linked to the construct it was intended to measure than to the other constructs within the research model. Based on this assessment, all constructs meet the cross-loading criterion and exhibit sufficient discriminant validity.

Table 27.25. Results of Cross-Loading

Code	Rewards	Flow Experience	Content Marketing	Player Satisfaction	True Loyalty
CM1	0.152	-0.062	0.801	0.233	0.228
CM2	0.216	0.017	0.83	0.34	0.297
CM3	0.088	-0.101	0.704	0.177	0.078

Code	Rewards	Flow Experience	Content Marketing	Player Satisfaction	True Loyalty
CM4	0.216	0.047	0.718	0.226	0.246
CM5	0.145	-0.019	0.805	0.264	0.327
FE1	0.081	0.777	0.022	0.327	0.298
FE2	0.114	0.769	0.028	0.366	0.377
FE3	0.078	0.757	-0.094	0.337	0.309
FE4	0.029	0.794	0.008	0.448	0.476
FE5	0.116	0.782	-0.04	0.364	0.416
PS1	0.354	0.355	0.337	0.823	0.528
PS2	0.216	0.344	0.283	0.758	0.449
PS3	0.309	0.458	0.256	0.847	0.559
PS4	0.394	0.406	0.244	0.815	0.472
PS5	0.281	0.382	0.234	0.804	0.543
RW1	0.779	-0.005	0.192	0.276	0.359
RW2	0.844	0.161	0.224	0.386	0.415
RW3	0.747	0.04	0.145	0.243	0.273
RW4	0.708	0.081	0.008	0.206	0.236
RW5	0.811	0.105	0.226	0.345	0.355
TL1	0.32	0.385	0.269	0.512	0.768
TL2	0.423	0.324	0.291	0.502	0.684
TL3	0.218	0.396	0.211	0.443	0.731
TL4	0.362	0.447	0.203	0.486	0.844
TL5	0.249	0.265	0.245	0.375	0.669

Source: Data Processing (2026)

4.4.1.3 Reliability Test

The reliability test was conducted to evaluate the internal consistency and reliability of the constructs in the research model. In this study, reliability was assessed using Cronbach's Alpha and Composite Reliability. Values of 0.70 or higher indicate acceptable internal consistency, while higher values demonstrate

stronger reliability (Hair et al., 2021). The results of the reliability assessment for the five variables are presented in the following subsections.

4.4.1.3.1 Cronbach's Alpha

Cronbach's Alpha was used to assess the internal consistency of the indicators within each construct. Based on the results presented in Table 4.26, all five variables obtained Cronbach's Alpha values above the recommended threshold of 0.70. Player Satisfaction recorded the highest value (0.869), followed by Rewards (0.840), Flow Experience (0.836), Content Marketing (0.835), and True Loyalty (0.793). Therefore, all variables meet the reliability criterion based on Cronbach's Alpha and demonstrate acceptable internal consistency.

Table 28.26. Results of Cronbach's Alpha

Variable	Cronbach's Alpha	Results
Rewards	0.84	Reliable
Flow Experience	0.836	Reliable
Content Marketing	0.835	Reliable
Player Satisfaction	0.869	Reliable
True Loyalty	0.793	Reliable

Source: Data Processing (2026)

To visualize the reliability results, the Cronbach's Alpha values of five constructs are shown in Figure 4.3 against the threshold of 0.70 as recommended. All constructs are above the minimum threshold as illustrated in the figure which further supports the satisfactory internal consistency reliability.

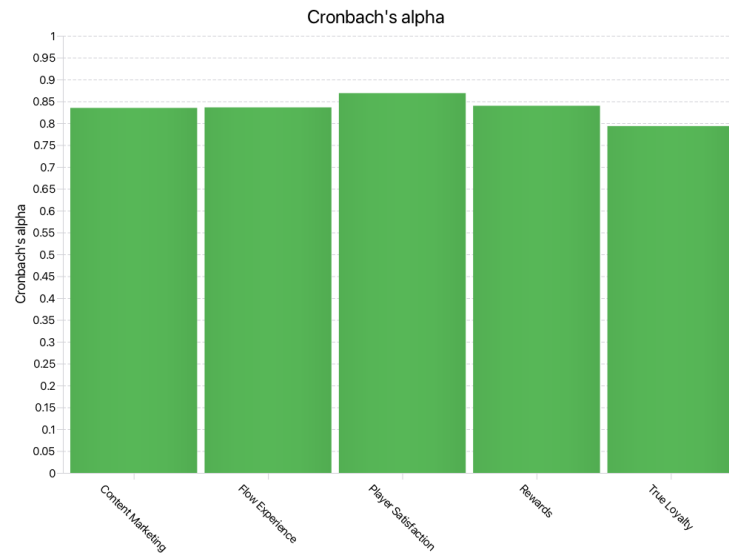


Figure 13.3. Cronbach's Alpha Graph
Source: Data Processing (2026)

4.4.1.3.2 Composite Reliability

Composite Reliability was also used to evaluate the internal consistency of the constructs. Based on Table 4.27 and Figure 4.4, Player Satisfaction recorded the highest Composite Reliability value (0.873), followed by Rewards (0.864), Content Marketing (0.860), Flow Experience (0.846), and True Loyalty (0.801). Since all Composite Reliability values exceed the recommended threshold of 0.70, all constructs meet the reliability criterion and demonstrate acceptable internal consistency.

Table 29.27. Results of Composite Reliability

Variable	Composite reliability (rho_a)	Results
Rewards	0.864	Valid
Flow Experience	0.846	Valid
Content Marketing	0.86	Valid
Player Satisfaction	0.873	Valid
True Loyalty	0.801	Valid

Source: Data Processing (2026)

Figure 4.4 illustrates the values of the five constructs against the recommended range of 0.70 to 0.95 to provide a graphical representation of the

Composite Reliability results. All constructs fell within the acceptable range indicating good reliability of internal consistency.

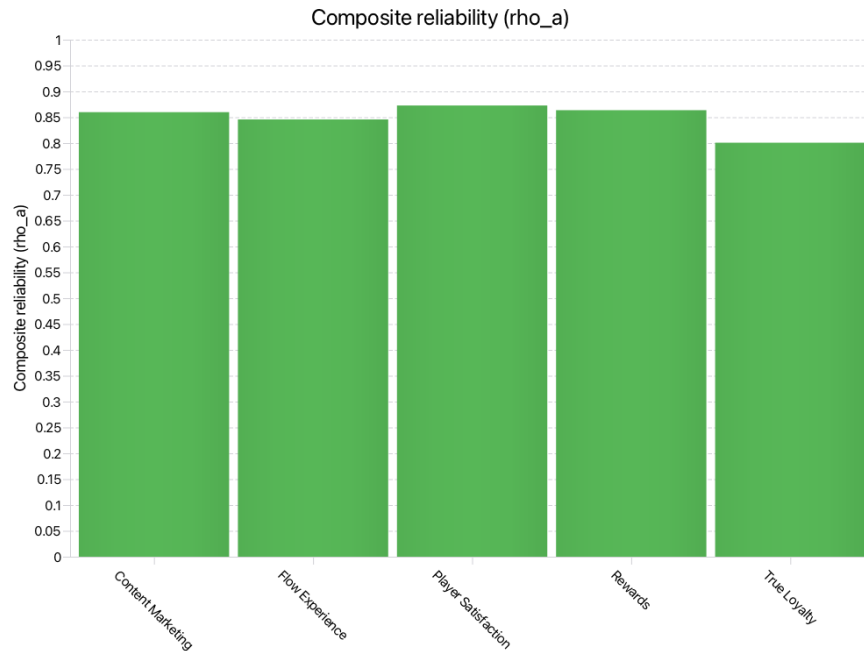


Figure 14.4. Composite Reliability Graph

Source: Data Processing (2026)

4.4.2 Inner Model Results

The inner model analysis was conducted to evaluate the relationships among the latent constructs in the research model and assess the model's explanatory and predictive capabilities. The evaluation of the inner model includes the Coefficient of Determination (R^2), Variance Inflation Factor (VIF), hypothesis testing, effect size (f^2), and Importance-Performance Map Analysis (IPMA). The results of these assessments are presented in the following subsections.

4.4.2.1 Coefficient of Determination (R^2)

The coefficient of determination (R^2) was used to evaluate the explanatory capacity of the structural model. As noted by Hair et al. (2021), R^2 values span from 0 to 1, with higher values signifying enhanced explanatory capacity. Generally, values of 0.75, 0.50, and 0.25 are regarded as substantial, moderate, and weak, respectively.

According to the findings illustrated in Table 4.28, Player Satisfaction achieved an R^2 value of 0.409, which indicates that 40.9% of its variance is accounted for by Rewards, Flow Experience, and Content Marketing. Given that this value falls between the moderate (0.50) and weak (0.25) thresholds, the model exhibits moderate explanatory capacity for Player Satisfaction. In contrast, True Loyalty recorded an R^2 value of 0.509, suggesting that 50.9% of its variance is elucidated by Rewards, Flow Experience, Content Marketing, and Player Satisfaction. Since this value slightly exceeds the 0.50 threshold, the model reflects moderate explanatory capacity for True Loyalty. Therefore, the results suggest that the proposed model offers a moderate level of explanatory capacity for both endogenous variables.

Table 30.28. Results of R-Squared

Variable	R-Square	Percentage	Results
Player Satisfaction	0.409	40.9%	Moderate
True Loyalty	0.509	50.9%	Moderate

Source: Data Processing (2026)

4.4.2.2 Variance Inflation Factor (VIF)

The Variance Inflation Factor (VIF) was used to evaluate the presence of multicollinearity among the predictor variables within the structural model. As detailed in Chapter 3, VIF values that are less than 3.0 suggest that multicollinearity is not a significant issue. According to the findings shown in Table 4.29, all VIF values fall below the suggested limit, ranging from 1.013 to 1.728. The highest VIF value was observed for Player Satisfaction → True Loyalty (1.728), whereas the lowest was noted for Flow Experience → Player Satisfaction (1.013). Consequently, the findings demonstrate that there is no significant multicollinearity among the predictor constructs, and the structural model meets the criteria for collinearity assessment.

Table 31.29. Results of Variance Inflation Factor

Relationship	VIF	Results
Content Marketing -> Player Satisfaction	1.053	Valid
Content Marketing -> True Loyalty	1.189	Valid

Relationship	VIF	Results
Flow Experience -> Player Satisfaction	1.013	Valid
Flow Experience -> True Loyalty	1.375	Valid
Player Satisfaction -> True Loyalty	1.728	Valid
Rewards -> Player Satisfaction	1.064	Valid
Rewards -> True Loyalty	1.197	Valid

Source: Data Processing (2026)

4.4.2.3 Hypothesis Testing

Hypothesis testing was undertaken to ascertain whether the proposed relationships among the constructs were validated by the empirical data. In PLS-SEM, the statistical significance of the structural relationships is evaluated through the bootstrapping procedure, which generates statistical outputs that include the original sample (O), sample mean (M), standard deviation, t-statistics, and p-values for the estimated path coefficients (Hair et al., 2021). The original sample value indicates the estimated path coefficient and reflects the direction and strength of the relationship between constructs. In this study, the bootstrapping results were primarily assessed using the t-statistic and p-value. At a 5% significance level utilizing a two-tailed test, a hypothesis is considered statistically significant when the t-statistic exceeds 1.96 and the p-value is below 0.05.

According to the results presented in Table 4.30, all seven direct relationships exhibit positive original sample values, indicating positive relationships between the respective constructs. Furthermore, all t-statistics exceed the critical value of 1.96, and all p-values are below 0.05. Therefore, all seven proposed direct hypotheses are statistically significant and supported.

The strongest statistical significance was identified in the relationship between Flow Experience and Player Satisfaction, which had an original sample value of 0.458, a t-statistic of 7.110, and a p-value of < 0.001. Conversely, the relationship from Content Marketing to True Loyalty recorded the lowest original sample value (0.172) and the lowest t-statistic (2.754), with a p-value of 0.003. Nonetheless, this relationship remained positive and statistically significant. The results provide empirical support for the proposed relationships among Rewards, Flow Experience, Content Marketing, Player Satisfaction, and True Loyalty. The

specific results for each hypothesis are further analyzed in the subsequent subsections.

Table 32.30. Results of Hypothesis Testing – Direct Relationship

Code	Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Results
H1a	The Effect of Rewards on Player Satisfaction	0.277	0.276	0.063	4.375	0.00	Supported
H1b	The Effect of Rewards on True Loyalty	0.233	0.243	0.062	3.734	0.00	Supported
H2a	The Effect of Flow Experience on Player Satisfaction	0.458	0.457	0.064	7.11	0.00	Supported
H2b	The Effect of Flow Experience on True Loyalty	0.313	0.314	0.084	3.72	0.00	Supported
H3a	The Effect of Content Marketing on Player Satisfaction	0.281	0.286	0.061	4.621	0.00	Supported
H3b	The Effect of Content Marketing on True Loyalty	0.172	0.182	0.063	2.754	0.003	Supported
H4	The Effect of Player Satisfaction on True Loyalty	0.333	0.325	0.089	3.745	0.00	Supported

Source: Data Processing (2026)

The structural model with the path coefficients and t-statistics is shown in Figure 4.5 to visually summarize the direct relationships. The figure shows that all

the direct paths are positive and statistically significant, supporting all the seven direct hypotheses.

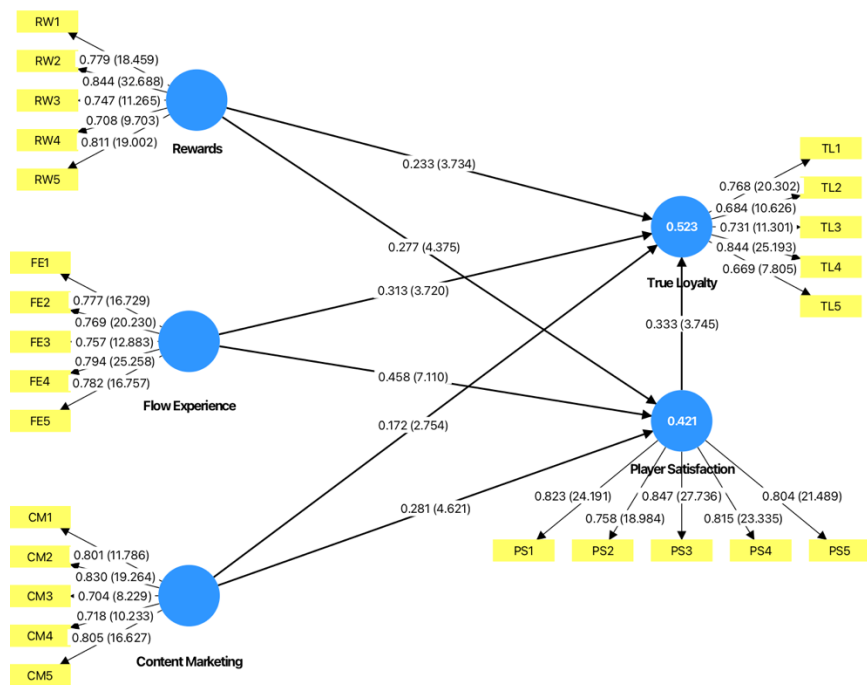


Figure 15.5. Hypothesis Testing Graph (Path Coefficient and T-Value)
Source: Data Processing (2026)

In addition to the direct relationships, the mediating role of Player Satisfaction was examined by assessing the specific indirect effects obtained through the bootstrapping procedure in SmartPLS 4. According to Nitzi et al. (2016), mediation in PLS-SEM should be evaluated based on the significance of the indirect effect, which can be assessed using bootstrapping. Using the same significance criteria applied to the direct relationships, an indirect effect is considered significant when the T-statistic exceeds 1.96 and the P-value is below 0.05. As presented in Table 4.31, all three specific indirect relationships through Player Satisfaction are statistically significant. Therefore, H5a, H5b, and H5c are supported.

The results indicate that Player Satisfaction significantly mediates the relationships between Rewards and True Loyalty, Flow Experience and True Loyalty, and Content Marketing and True Loyalty. This means that these three

antecedents influence True Loyalty not only directly but also indirectly by first influencing players' overall satisfaction. Among the mediation relationships, Flow Experience demonstrates the strongest indirect influence through Player Satisfaction, suggesting that an immersive and enjoyable gaming experience can strengthen True Loyalty by enhancing players' satisfaction. Since the corresponding direct effects on True Loyalty are also significant, the results indicate that Player Satisfaction plays a complementary partial mediating role in these relationships.

Table 33.31. Results of Hypothesis Testing – Mediating Relationship

Code	Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Results
H5a	The Effect of Rewards on True Loyalty through Player Satisfaction	0.092	0.089	0.031	3.013	0.001	Supported
H5b	The Effect of Flow Experience on True Loyalty through Player Satisfaction	0.152	0.148	0.043	3.513	0	Supported
H5c	The Effect of Content Marketing on True Loyalty through Player Satisfaction	0.093	0.093	0.032	2.898	0.002	Supported

Source: Data Processing (2026)

4.4.2.4 Results of the Study

Based on the data presented in Tables 4.30 and 4.31, the results of the hypothesis testing in this study can be explained as follows:

1. H1a: Results of the Effect of Rewards on Player Satisfaction

The first hypothesis states that Rewards have a positive and significant effect on Player Satisfaction. Based on the SEM analysis, the Original Sample value is 0.277 (positive), the T-statistic is 4.375 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H1a is supported. Rewards have a positive and significant effect on Player Satisfaction. This indicates that more positive perceptions of the rewards provided in *Honkai: Star Rail* contribute significantly to higher player satisfaction.

2. H1b: Results of the Effect of Rewards on True Loyalty

The second hypothesis states that Rewards have a positive and significant effect on True Loyalty. Based on the SEM analysis, the Original Sample value is 0.233 (positive), the T-statistic is 3.734 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H1b is supported. Rewards have a positive and significant effect on True Loyalty. This indicates that more positive perceptions of the game's rewards contribute to stronger True Loyalty among *Honkai: Star Rail* players.

3. H2a: Results of the Effect of Flow Experience on Player Satisfaction

The third hypothesis states that Flow Experience has a positive and significant effect on Player Satisfaction. Based on the SEM analysis, the Original Sample value is 0.458 (positive), the T-statistic is 7.11 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H2a is supported. Flow Experience has a positive and significant effect on Player Satisfaction. This indicates that a stronger flow experience while playing *Honkai: Star Rail* contributes significantly to higher player satisfaction. Among the predictors of Player Satisfaction, Flow Experience has the highest Original Sample value, indicating the strongest positive relationship.

4. H2b: Results of the Effect of Flow Experience on True Loyalty

The fourth hypothesis states that Flow Experience has a positive and significant effect on True Loyalty. Based on the SEM analysis, the Original Sample value is 0.313 (positive), the T-statistic is 3.72 (> 1.96), and the P-value is < 0.001

(< 0.05). Therefore, H2b is supported. Flow Experience has a positive and significant effect on True Loyalty. This indicates that a stronger flow experience contributes significantly to greater True Loyalty toward *Honkai: Star Rail*.

5. H3a: Results of the Effect of Content Marketing on Player Satisfaction

The fifth hypothesis states that Content Marketing has a positive and significant effect on Player Satisfaction. Based on the SEM analysis, the Original Sample value is 0.281 (positive), the T-statistic is 4.621 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H3a is supported. Content Marketing has a positive and significant effect on Player Satisfaction. This indicates that more positive perceptions of HoYoverse's Content Marketing contribute significantly to higher player satisfaction.

6. H3b: Results of the Effect of Content Marketing on True Loyalty

The sixth hypothesis states that Content Marketing has a positive and significant effect on True Loyalty. Based on the SEM analysis, the Original Sample value is 0.172 (positive), the T-statistic is 2.754 (> 1.96), and the P-value is 0.003 (< 0.05). Therefore, H3b is supported. Content Marketing has a positive and significant effect on True Loyalty. This indicates that positive perceptions of HoYoverse's Content Marketing contribute significantly to stronger True Loyalty, although this relationship has the lowest Original Sample value among the direct predictors of True Loyalty.

7. H4: Results of the Effect of Player Satisfaction on True Loyalty

The seventh hypothesis states that Player Satisfaction has a positive and significant effect on True Loyalty. Based on the SEM analysis, the Original Sample value is 0.333 (positive), the T-statistic is 3.745 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H4 is supported. Player Satisfaction has a positive and significant effect on True Loyalty. This indicates that higher player satisfaction contributes significantly to stronger True Loyalty toward *Honkai: Star Rail*. Among the direct predictors of True Loyalty, Player Satisfaction has the highest Original Sample value, indicating the strongest direct positive relationship with True Loyalty.

8. H5a: Results of the Effect of Rewards on True Loyalty through Player Satisfaction

The eighth hypothesis states that Player Satisfaction mediates the relationship between Rewards and True Loyalty. Based on the SEM analysis, the Original Sample value is 0.092 (positive), the T-statistic is 3.013 (> 1.96), and the P-value is 0.001 (< 0.05). Therefore, H5a is supported. Player Satisfaction significantly mediates the relationship between Rewards and True Loyalty. This indicates that positive perceptions of the rewards provided in *Honkai: Star Rail* can contribute to stronger True Loyalty indirectly through higher Player Satisfaction.

9. H5b: Results of the Effect of Flow Experience on True Loyalty through Player Satisfaction

The ninth hypothesis states that Player Satisfaction mediates the relationship between Flow Experience and True Loyalty. Based on the SEM analysis, the Original Sample value is 0.152 (positive), the T-statistic is 3.513 (> 1.96), and the P-value is < 0.001 (< 0.05). Therefore, H5b is supported. Player Satisfaction significantly mediates the relationship between Flow Experience and True Loyalty. This indicates that a stronger Flow Experience while playing *Honkai: Star Rail* can contribute to greater True Loyalty indirectly through higher Player Satisfaction. Among the three mediation relationships, Flow Experience has the highest Original Sample value, indicating the strongest indirect relationship with True Loyalty through Player Satisfaction.

10. H5c: Results of the Effect of Content Marketing on True Loyalty through Player Satisfaction

The tenth hypothesis states that Player Satisfaction mediates the relationship between Content Marketing and True Loyalty. Based on the SEM analysis, the Original Sample value is 0.093 (positive), the T-statistic is 2.898 (> 1.96), and the P-value is 0.002 (< 0.05). Therefore, H5c is supported. Player Satisfaction significantly mediates the relationship between Content Marketing and True Loyalty. This indicates that positive perceptions of HoYoverse's Content Marketing

can contribute to stronger True Loyalty indirectly through higher Player Satisfaction.

4.4.2.5 Effect Size (f^2)

The effect size (f^2) was used to assess the individual contribution of each exogenous construct to the explanatory power of the endogenous constructs. In PLS-SEM, the f^2 value indicates the extent to which the R^2 value of an endogenous construct changes when a particular predictor construct is omitted from the model. According to Hair et al. (2021), f^2 values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively, while values below 0.02 indicate no meaningful effect.

Based on the results presented in Table 4.32, Flow Experience $\rightarrow$ Player Satisfaction recorded the highest effect size ($f^2 = 0.357$), indicating a large effect. This suggests that Flow Experience makes the strongest contribution to explaining Player Satisfaction among the predictor constructs. Meanwhile, Content Marketing $\rightarrow$ Player Satisfaction ($f^2 = 0.129$) and Rewards $\rightarrow$ Player Satisfaction ($f^2 = 0.124$) both demonstrate small effects. These results indicate that Content Marketing and Rewards also contribute to explaining Player Satisfaction, although their effects are smaller than that of Flow Experience.

For True Loyalty, Flow Experience ($f^2 = 0.150$) and Player Satisfaction ($f^2 = 0.134$) demonstrate small effects, with Player Satisfaction being close to the medium-effect threshold. Meanwhile, Rewards $\rightarrow$ True Loyalty ($f^2 = 0.095$) and Content Marketing $\rightarrow$ True Loyalty ($f^2 = 0.052$) also demonstrate small effects. Therefore, all four constructs contribute to explaining True Loyalty, with Flow Experience showing the largest effect size among the predictors. Overall, the results indicate that Flow Experience has the strongest contribution to the explanatory power of both Player Satisfaction and True Loyalty, while the other predictor constructs demonstrate smaller contributions to the research model.

Table 34.32. Results of Effect Size

Relationship	f^2	Effect Size
Content Marketing $\rightarrow$ Player Satisfaction	0.129	Small
Content Marketing $\rightarrow$ True Loyalty	0.052	Small

Relationship	f²	Effect Size
Flow Experience → Player Satisfaction	0.357	Large
Flow Experience → True Loyalty	0.150	Medium
Player Satisfaction → True Loyalty	0.134	Small

Source: Data Processing (2026)

4.4.2.6 Importance-Performance Map Analysis (IPMA)

The Importance-Performance Map Analysis (IPMA) was conducted to evaluate the relative importance and performance of the constructs influencing True Loyalty. The total effect of each construct on the target variable indicates the importance of each construct and the average latent variable score rescaled from 0 to 100 indicates the performance of each variable (Ringle & Sarstedt, 2016). The IPMA thus offers further practical insights by identifying constructs that have a high influence on True Loyalty, but relatively lower levels of performance, which may be seen as priorities for improvement.

Based on the results illustrated by Table 4.33 and Table 4.34, Flow Experience has the highest importance for True Loyalty, with a total effect of 0.466, followed by Player Satisfaction (0.333), Rewards (0.325), and Content Marketing (0.266). However, Flow Experience has a relatively lower performance score of 67.470, while Player Satisfaction and Rewards demonstrate higher performance scores of 71.039 and 71.417, respectively. Content Marketing records the lowest importance and the lowest performance among the four constructs, with values of 0.266 and 66.619, respectively.

Table 35.33. Construct Total Effects for True Loyalty (X-axis)

Variable	Total Effects (Importance)
Content Marketing	0.266
Flow Experience	0.466
Player Satisfaction	0.333
Rewards	0.325

Source: Data Processing (2026)

Table 36.34. Construct Performances for True Loyalty (Y-axis)

Variable	Performance
Content Marketing	66.619
Flow Experience	67.47
Player Satisfaction	71.039
Rewards	71.417

Source: Data Processing (2026)

Further to visualize the IPMA results, Figure 4.6 maps the constructs according to their importance and performance levels. The map shows that Flow Experience is in the most important position, with relatively high performance, indicating its strategic importance for True Loyalty. Rewards however has a lower performance but a higher importance value than Content Marketing which indicates an opportunity to reinforce True Loyalty may be to improve the perceived value and effectiveness of rewards.

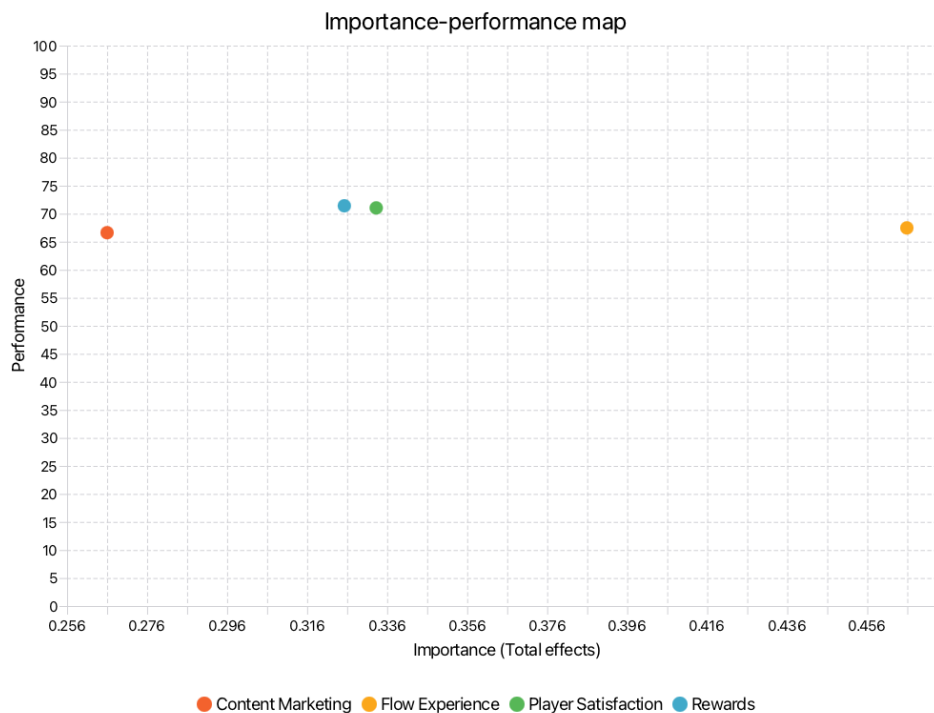


Figure 16.6. Importance-Performance Map (True Loyalty - Constructs)

Source: Data Processing (2026)

Overall, the results suggest that the main focus of improvement should be Flow Experience. It has the most significant total effect on True Loyalty and its

performance is still lower than Player Satisfaction and Rewards. Hence, Flow Experience has the greatest potential to improve players' True Loyalty to *Honkai: Star Rail*. Content Marketing is also performing quite poorly. Nevertheless, the relatively lower importance of this construct suggests that improvement in this construct would be expected to have a relatively smaller impact on True Loyalty. At the same time, Rewards and Player Satisfaction have rather high performance levels. Player Satisfaction also has rather high importance. The results of this research provide concrete recommendations for where to focus efforts to improve True Loyalty among *Honkai: Star Rail* players.

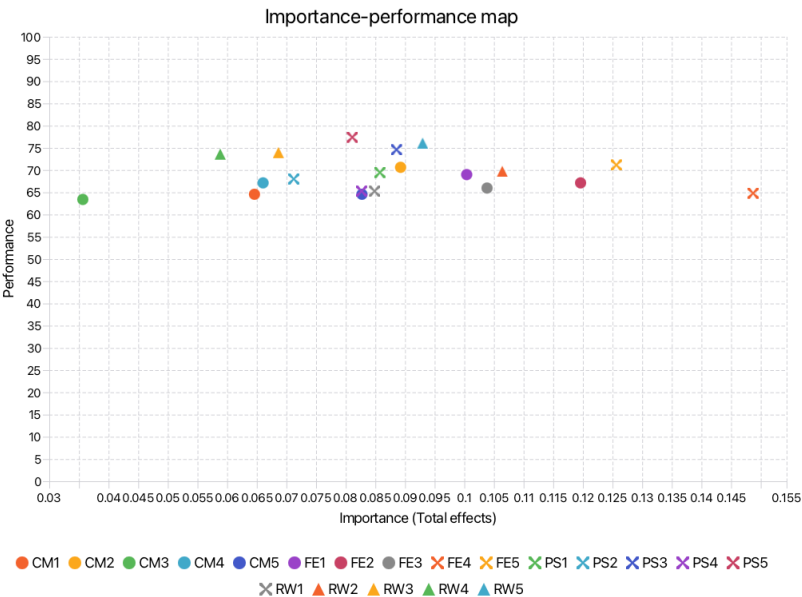


Figure 17.7. Importance-Performance Map (True Loyalty - Indicators)

Source: Data Processing (2026)

In addition to the construct-level analysis, an indicator-level Importance-Performance Map Analysis was performed to determine the precise indicators related with True Loyalty. Figure 4.7 shows the importance and performance of the individual indicators. Indicator FE4, “*I feel I want to keep playing Honkai: Star Rail.*”, has the best performance with a performance value of around 77.5 which means that respondents reported the greatest perception for this indicator. This indicator-level analysis builds on the construct-level IPMA to offer a more granular view of the specific indicators that drive the overall True Loyalty conclusion.

4.4.3 Analysis and Discussion

4.4.3.1 Rewards have a positive and significant effect on Player Satisfaction

The results of this study indicate that Rewards have a positive and significant effect on Player Satisfaction, supporting H1a. This finding is in line with Fernandes et al. (2024) and Teng et al. (2022), which suggest that reward mechanisms can influence users' positive experiences and satisfaction. In the context of *Honkai: Star Rail*, the finding indicates that players are more satisfied when they perceive the rewards provided by the game as meaningful and valuable. This supports the role of rewards as more than a mechanism for encouraging gameplay, as they can also shape players' overall evaluation of their gaming experience.



Figure 18.8. Login Reward – Gift of Odyssey

Source: honkai-star-rail.fandom.com

The findings further suggest that both immediate and delayed rewards may contribute to Player Satisfaction through different forms of gratification. Immediate rewards, such as login rewards, maintenance compensation, and redemption codes, may provide immediate value to players. For example, Figure 4.8 presents the Gift of Odyssey daily check-in reward in *Honkai: Star Rail*, which provides players with rewards (in the form of free "Special Passes") for consecutive 7-time daily logins after a version update, illustrating how immediate rewards can be incorporated into the players' regular gameplay routine. In contrast, delayed rewards obtained through

story progression and events may create a sense of achievement. This is consistent with Fernandes et al. (2024), who highlighted the importance of reward timing in influencing user engagement and motivation. Similarly, Hamari and Koivisto (2015) demonstrated that rewards and gamification mechanisms can strengthen users' engagement by providing reinforcing outcomes.

Therefore, the positive relationship between Rewards and Player Satisfaction indicates that the reward system plays an important role in shaping how players evaluate their overall experience. For *Honkai: Star Rail*, this implies that maintaining player satisfaction should involve not only providing rewards frequently but also ensuring that they are perceived as valuable and enjoyable. A balance between reward availability, perceived value, and enjoyment is therefore important for creating a satisfying experience for players.

4.4.3.2 Rewards have a positive and significant effect on True Loyalty

The results of this study indicate that Rewards have a positive and significant effect on True Loyalty, supporting H1b. This finding is in line with previous research on reward mechanisms and loyalty, which suggests that positive rewards can encourage continued participation and strengthen users' commitment over time. Hamari et al. (2015) found that gamification features can positively influence users' attitudes and participation, while Koivisto and Hamari (2015) emphasized the role of gamified experiences in encouraging continued engagement. The present finding extends this understanding to the context of *Honkai: Star Rail*, indicating that positive perceptions of the game's rewards can also contribute to stronger loyalty among players.

This finding may be explained by the role of rewards in reinforcing both behavioral and attitudinal aspects of loyalty. According to Dick and Basu (1994), true loyalty involves both repeated patronage and a favorable attitude toward a brand or product. In terms of *Honkai: Star Rail*, meaningful rewards may encourage players to continue participating in the game while simultaneously strengthening their positive perceptions of the game. The reward-timing perspective of Fernandes et al. (2024) is also relevant, as immediate rewards may reinforce current

engagement, whereas delayed rewards can encourage players to remain committed to longer-term objectives and progression.

The results therefore imply that rewards can contribute to True Loyalty by providing players with continuing reasons to remain engaged with the game. However, the findings do not suggest that rewards alone are sufficient to create true loyalty. Rather, a consistent and meaningful reward system can strengthen players' perceptions of value and encourage long-term commitment. This is consistent with Dick and Basu's (1994) view that loyalty involves more than repeated behavior and requires the development of a favorable attitude toward the object of loyalty. For *Honkai: Star Rail*, the findings suggest that the reward system should be considered as part of a broader strategy for maintaining long-term player relationships rather than solely as a short-term mechanism for retaining player activity.

4.4.3.3 Flow Experience has a positive and significant effect on Player Satisfaction

The findings of this study indicate that Flow Experience has a positive and significant effect on Player Satisfaction, supporting H2a. This finding suggests that when players experience greater concentration, enjoyment, a sense of control, and how they manage their time consumption while playing *Honkai: Star Rail*, they are more likely to develop a positive evaluation of their overall gaming experience. The result supports the theoretical perspective of Csikszentmihalyi (1990), which describes flow as a highly engaging psychological state that occurs when an individual becomes deeply absorbed in an activity. In the gaming context, such immersion can transform gameplay from a simple activity into an intrinsically rewarding experience, thereby contributing to player satisfaction.

This finding is also in line with previous research suggesting that flow experience is an important determinant of satisfaction in digital and gaming environments. Teng et al. (2022) highlighted the role of immersive and enjoyable gameplay experiences in shaping players' positive responses, while studies discussed in this research indicate that flow can strengthen players' engagement and evaluations of the gaming experience. The present result suggests that quality of experience in the game greatly influences the satisfaction of the players of *Honkai*:

Star Rail. In this respect, players with high immersion in the game and pleasure with little interruption are more likely to have positive overall experience.

This means that for HoYoverse to be able to keep players satisfied, they need to keep up the gameplay conditions to allow for this immersion. This includes keeping the game content interesting, keeping the balance of challenge and player's ability appropriate, and providing gameplay systems where the players feel included and in control of their progress. This is especially true for a live-service *gacha* game, where just adding new content might not be enough to keep players happy unless the core gameplay experience can capture their attention and be fun. These results thus suggest that Flow Experience is a key mechanism through which quality of gameplay can influence Player Satisfaction.

4.4.3.4 Flow Experience has a positive and significant effect on True Loyalty

The findings of this study indicate that Flow Experience has a positive and significant effect on True Loyalty, supporting H2b. This result suggests that an immersive and enjoyable gameplay experience contributes not only to players' immediate responses during gameplay but also to their longer-term attachment to *Honkai: Star Rail*. When players repeatedly experience concentration, enjoyment, and deep involvement, they may develop stronger favorable attitudes toward the game and greater willingness to continue their relationship with it.

This finding is consistent with research discussed in the literature on the role of flow in continued participation and loyalty-related outcomes. Hamari and Koivisto (2015) demonstrated the importance of psychological engagement and enjoyment in encouraging continued participation in gamified environments, while Teng et al. (2022) emphasized the role of immersive gaming experiences in shaping players' positive behavioral intentions. The results of this study indicate that the experience of playing the game itself is a critical foundation for long-term loyalty. The more engaging and personally rewarding the game-play the more likely players are to stay in a relationship with the game.

This result can also be explained in terms of Dick and Basu (1994) true loyalty which is a combination of positive attitude and continued behavioral commitment. A positive Flow Experience can aid this process, giving you repeated

positive interaction with the game. These experiences can also give players reasons to keep playing, which can help reinforce positive attitudes. So we could be immersed and having a good time with it, and then with time we could have a longer and more sustained relationship with *Honkai: Star Rail*, rather than simply encouraging fleeting or habitual forms of engagement.

The results suggest that HoYoverse should not only depend on external incentives, such as rewards and promotional activities, to retain long-term players. Playing the game is an attention-intensive experience by nature. The ability to sustain an adequate level of immersion, enjoyment, and engagement may help to cultivate players' willingness to remain committed as the game and its broader competitive context change. Therefore, Flow Experience is an important element in the sustainability of True Loyalty, as it fills the gap between short-term quality of gameplay and long-term retention of players in the game.

4.4.3.5 Content Marketing has a positive and significant effect on Player Satisfaction

The results of this study indicate that Content Marketing has a positive and significant effect on Player Satisfaction, supporting H3a. This finding is consistent with earlier research which has shown that valuable and engaging branded content can improve consumer responses by offering relevant information and providing positive experiences. Ashley and Tuten (2015) pointed out the necessity of creating novel and interesting branded content to encourage consumer interaction. The studied literature in this study further confirms the need of an informative and engaging content to enhance pleasant consumer experiences. In terms of *Honkai: Star Rail*, Content Marketing adds to Player Satisfaction by expanding the player experience outside of the game itself.

The results indicate that the satisfaction of the players is determined by the gameplay and reward systems, as well as the contact between the developer and the player community. Promotional tools such as version livestreams, character previews, trailers, update announcements, animation content and others can assist inform players about what's coming next while also providing fun and increasing anticipation. If the content is useful, entertaining and effectively presented it could

improve the entire experience of the players and increase their happiness with the game.

This indicates the importance of Content Marketing being a seamless part of the entire player journey within the company and not just a standalone promotional tool. It is HoYoverse's responsibility to ensure that players are fed interesting and informative content to keep them engaged with the game, even when they are unable to actively play it. As such the results suggest that the implementation of a regular communication schedule and engaging content can promote not only understanding of future projects, but also a general increase in satisfaction from the players, which will subsequently raise Player Satisfaction.

4.4.3.6 Content Marketing has a positive and significant effect on True Loyalty

The results of this study indicate that Content Marketing has a positive and significant effect on True Loyalty, supporting H3b. This finding is consistent with Lou and Xie (2021), who found that valuable and engaging content can strengthen brand loyalty by enhancing consumer experiences and developing emotional connections with a brand. In digital environments, content can therefore serve not only to communicate information but also to maintain interest, reinforce favorable perceptions, and support longer-term relationships.



Figure 19.9. *Honkai Star Rail* Version 4.5 Special Program Promotional Livestream Video Thumbnail

Source: YouTube.com

In the context of *Honkai: Star Rail*, trailers, livestreams, animated shorts, character previews, update announcements, promotional campaigns, developer communications, and social media interactions may help maintain players' connection with the game beyond direct gameplay. For example, Figure 4.9 illustrates HoYoverse's Version 4.5 Special Program for *Honkai: Star Rail*, an official promotional content that communicates upcoming developments through livestreaming on YouTube which aims to attract and maintain players' interest and engagement with the game between major updates. The present findings extend this relationship to *Honkai: Star Rail*'s ongoing content marketing which contributes positively to players' loyalty toward the game. As discussed in the hypothesis development, these activities can sustain player interest and excitement regarding future developments while strengthening confidence in the game's continued development. The findings therefore indicate that consistent and meaningful communication can contribute to a longer-term relationship by encouraging players to remain psychologically connected to the game.

However, the implications of the findings suggest that Content Marketing should not be viewed solely as a short-term promotional activity. To contribute to True Loyalty, the content should provide continuing value to players and maintain their interest over time. This is particularly relevant in a live-service game, where developers must maintain communication and engagement across continuous content updates. From a relationship marketing perspective, consistent and meaningful interactions can help strengthen the relationship between the organization and its consumers. Therefore, HoYoverse can support long-term player loyalty by ensuring that its content remains informative, entertaining, engaging, and consistent, thereby maintaining players' connection to *Honkai: Star Rail* beyond the gameplay experience itself.

4.4.3.7 Player Satisfaction has a positive and significant effect on True Loyalty

The results of this study indicate that Player Satisfaction has a positive and significant effect on True Loyalty, supporting H4. This finding is in line with Rita et al. (2019) and Fernandes et al. (2024), which identify satisfaction as an important antecedent of loyalty in digital service contexts. The results indicate that players

who appreciate the entire experience of *Honkai: Star Rail* are more likely to keep a positive attitude and commitment to the game over the long term.

Moreover, this is also explained by the Expectation-Confirmation Theory which implies that the enjoyment is felt when players find their experiences to be congruent with or above their expectations. If *Honkai: Star Rail* offers enjoyable, rewarding content, prizes that are worth having and progression that feels nice to the players, then gamers might have fantastic opinions. Good ratings can encourage gamers to stay with the game and not easily transfer to competing solutions. The study thus proposes happiness as a key technique for converting excellent experiences into greater long-term commitment.

The data further reinforce Dick and Basu's (1994) view that satisfaction is a necessary antecedent of loyalty in the affective domain. Loyalty is not merely continued patronage; it is good opinions as well as continued patronage. This finding, in turn, suggests that Player Satisfaction is involved at both ends of this process. This means that the game implies that satisfied players will tend to maintain positive thoughts and views of *Honkai: Star Rail*. This can lead to a higher willingness to keep playing, to propose the game and to be committed in the long run.

The results suggest that to build True Loyalty, you have to consider the entire player experience, not just a piece of the game. Player Satisfaction is a wider measure of how well the players' expectations are met. Thus, developers should strive to maintain consistency in gameplay, prizes, content updates and communication with the player community. In the hyper-competitive world of live-service *gacha* games, gamers may stay on, but that doesn't necessarily translate to loyalty. That sustained satisfaction is important because it can underpin the good attitudes and commitment that mark out True Loyalty from the ephemeral, the habitual or the situational participation.

4.4.3.8 Mediating Role of Player Satisfaction

Player Satisfaction serves as a mediating factor through which Rewards, Flow Experience, and Content Marketing enhances True Loyalty. The findings from the direct relationship analyses indicate that these three elements positively affect

Player Satisfaction, which in turn has a favorable impact on True Loyalty. This implies that positive player experiences can influence loyalty not only directly but also by first enhancing players' overall satisfaction with the game. This interpretation aligns with the work of Rita et al. (2019) and Fernandes et al. (2024), who recognized satisfaction as a crucial mechanism for converting positive consumer experiences into enduring loyalty. In the context of *Honkai: Star Rail*, significant rewards, immersive gameplay, and captivating content marketing may initially foster positive assessments of the player experience, subsequently promoting a stronger commitment and loyalty to the game. The following subsections will delve deeper into the mediating function of Player Satisfaction in the relationships between Rewards, Flow Experience, and Content Marketing with True Loyalty.

4.4.3.9 Player Satisfaction significantly mediates the relationship between Rewards and True Loyalty

The results of this study indicate that Player Satisfaction significantly mediates the relationship between Rewards and True Loyalty, supporting H5a. This finding suggests that Rewards contribute to True Loyalty not only through their direct influence on players but also by first enhancing their overall satisfaction with the game. This is in line with the findings of Fernandes et al. (2024) et al. (2019), which suggest that satisfaction can act as an important mechanism in transforming positive experiences into long-term loyalty. This means that if a player is given valuable and satisfying rewards, they might think the game is satisfactory enough to stay more loyal and committed to it.

The mediating effect of Player Satisfaction indicates the value of the reward system goes beyond motivating the players to continue playing in the short term. Players' satisfaction with the entire gaming experience can be improved when they believe the rewards they get are meaningful, attainable and valuable. This satisfaction then results in the development of True Loyalty by enhancing players' positive attitudes and their willingness to continue their relationship with the game. The results therefore suggest that rewards might be more effective at achieving

long-term loyalty when they provide real satisfaction rather than simply being incentives to motivate repeated participation.

Results further indicate that the rewards in *Honkai: Star Rail* should be considered as a component of the overall player experience. Loyalty can be developed by providing instant rewards, but also by rewarding players for longer-term progression, making them feel that the time, effort and continued engagement they put into the game is worthwhile. This supports the proposed view that positive experiences can be changed into more stable long-term commitment through satisfaction.

4.4.3.10 Player Satisfaction significantly mediates the relationship between Flow Experience and True Loyalty

The results of this study indicate that Player Satisfaction significantly mediates the relationship between Flow Experience and True Loyalty, supporting H5b. This finding suggests that an immersive and engaging gameplay experience can strengthen True Loyalty indirectly by first creating higher levels of Player Satisfaction. The result is consistent with the findings of Hsu and Lu (2004) and Rita et al. (2019), which highlight the importance of positive user experiences and satisfaction in encouraging continued use and loyalty-related outcomes.

Honkai: Star Rail's Flow Experience can also generate loyalty by stimulating the players psychologically in the game through excitement and focus. These encounters also contribute to a better overall appraisal of the game and boost Player Satisfaction. This enhanced satisfaction can then induce the players' positive attitude and inspire them to maintain their relationship with the game. So the result reveals that Flow Experience effect is not only restricted to the game. The consequences can spill over from the event itself to influence players' overall pleasure and, consequently, their longer-term loyalty.

This mediation outcome is a huge thing in a live-service *gacha* game. Often paying players or updating information on a regular basis won't be enough to preserve their loyalty. The fundamental gameplay should still be fun and provide players a meaningful, engaging experience. The results suggest the importance of Player Satisfaction to convert great gameplay experiences to higher loyalty with Flow Experience playing particularly essential role. Therefore, developers should

consider adding gameplay conditions that enable focus, enjoyment and engagement into a holistic approach for building long-term relationships with players. This perspective is also in line with the proposed research paradigm where immersive gameplay experiences are antecedents of True Loyalty through direct and mediated routes of satisfaction.

4.4.3.11 Player Satisfaction significantly mediates the relationship between Content Marketing and True Loyalty

The results of this study indicate that Player Satisfaction significantly mediates the relationship between Content Marketing and True Loyalty, supporting H5c. This finding suggests that Content Marketing contributes to stronger True Loyalty indirectly by first improving players' overall satisfaction. This is consistent with Lou and Xie (2021) and Rita et al. (2019), which support the role of positive content and consumer satisfaction in shaping longer-term relationships and loyalty. With regard pertaining to the *Honkai: Star Rail* game, informative, amusing, engaging, and consistent marketing content may boost players' overall satisfaction from the game, hence enhancing their loyalty.

The indirect relationship between Content Marketing and Player Loyalty depicts the impact of the use of marketing tools on game involvement. Content marketing can be more attractive and informative, therefore supporting players' impression of value offered by the company. This has a good effect on their attitude toward the game, raising Player Satisfaction. In turn, increased Player Satisfaction leads to higher rates of True Loyalty. This means material Marketing can help to engage *Honkai: Star Rail* users outside of the game by sharing knowledge and fun material.

This conclusion has significant implications for the live-service gaming setting where communication between the developer and the player community is continuous throughout the game's life cycle. Content like version announcements, livestreams, character promotions, trailers, and other messaging can help keep players engaged and feeling connected in between gameplay and significant upgrades. But the evidence suggests that the success of such content in generating long-term loyalty rests in part on whether it contributes to a satisfactory overall player experience. Content Marketing should therefore be managed as part of a

wider relationship-building strategy that produces value for players and improves their pleasure, rather than simply as a promotional activity. This confirms the hypothesized framework of the study that constant communication and involvement within the community might improve the players' relationship toward the game and eventually lead to the sustained True Loyalty.

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

Based on the research and analysis on the effects of Rewards, Flow Experience, and Content Marketing on True Loyalty, with Player Satisfaction serving as a mediating variable among *Honkai: Star Rail* players in Indonesia, the conclusions can be drawn as follows:

1. Rewards have a positive and significant effect on Player Satisfaction. Therefore, the first hypothesis is supported. This finding indicates that when players perceive the rewards provided in *Honkai: Star Rail* as valuable, available, and enjoyable, they are more likely to experience greater satisfaction with the game.
2. Rewards have a positive and significant effect on True Loyalty. Therefore, the second hypothesis is supported. The findings indicate that positive perceptions of the game's reward system can encourage players to develop stronger long-term commitment and loyalty toward *Honkai: Star Rail*.
3. Flow Experience has a positive and significant effect on Player Satisfaction. Therefore, the third hypothesis is supported. This indicates that when players experience greater enjoyment, concentration, involvement, and engagement during gameplay, they are more likely to feel satisfied with their overall gaming experience. Flow Experience also demonstrates the strongest influence among the antecedents of Player Satisfaction.
4. Flow Experience has a positive and significant effect on True Loyalty. Therefore, the fourth hypothesis is supported. This finding indicates that an immersive and enjoyable gameplay experience can contribute to stronger long-term loyalty toward *Honkai: Star Rail*.
5. Content Marketing has a positive and significant effect on Player Satisfaction. Therefore, the fifth hypothesis is supported. Informative, entertaining, engaging, and consistent content provided by HoYoverse can contribute positively to players' overall satisfaction with the game.

6. Content Marketing has a positive and significant effect on True Loyalty. Therefore, the sixth hypothesis is supported. This indicates that positive perceptions of HoYoverse's Content Marketing can help maintain players' interest and connection with the game, thereby contributing to stronger long-term loyalty.
7. Player Satisfaction has a positive and significant effect on True Loyalty. Therefore, the seventh hypothesis is supported. This finding indicates that players who are more satisfied with their overall experience are more likely to develop stronger commitment and True Loyalty toward *Honkai: Star Rail*. Player Satisfaction also demonstrates the strongest direct influence on True Loyalty.
8. Player Satisfaction significantly mediates the relationship between Rewards and True Loyalty. Therefore, the eighth hypothesis is supported. This indicates that Rewards can contribute to True Loyalty not only directly but also by first enhancing Player Satisfaction.
9. Player Satisfaction significantly mediates the relationship between Flow Experience and True Loyalty. Therefore, the ninth hypothesis is supported. This indicates that a stronger Flow Experience can enhance Player Satisfaction, which subsequently contributes to stronger True Loyalty. Among the indirect relationships examined, this mediating relationship demonstrates the strongest influence.
10. Player Satisfaction significantly mediates the relationship between Content Marketing and True Loyalty. Therefore, the tenth hypothesis is supported. This finding indicates that Content Marketing can contribute to True Loyalty indirectly by improving players' overall satisfaction.

Overall, the results show that all the postulated relationships are supported. True Loyalty is directly and indirectly affected by Rewards, Flow Experience and Content Marketing through Player Satisfaction. The findings point to the need for a rewarding, immersive and engaging player experience to increase happiness and build real long-term commitment. In live-service *gacha* games, preserving True Loyalty consequently needs more than just keeping players playing or offering

short-term incentives, as players' overall enjoyment and experience play an essential role in maintaining players' long-term relationship with the game.

5.2. Implications

5.2.1. Theoretical Implications

This study has various theoretical implications for understanding True Loyalty in live-service gacha mobile games. First, the results support the empirical application of Relationship Marketing Theory and Customer Loyalty Theory in an evolving digital gaming environment (Morgan & Hunt, 1994; Dick & Basu, 1994). Our results indicate that various experiences, including the benefits received through rewards, the immersion experienced during gameplay, and the content provided by the developer, influence the relationship between players and a live-service game. These experiences contribute to Player Satisfaction, which plays a crucial role in the development of True Loyalty. Therefore, loyalty development in a live-service game can be understood as a relationship-building process in which perceived value, satisfaction, and positive experiences foster players' longer-term commitment (Morgan & Hunt, 1994; Dick & Basu, 1994).

Second, the results contribute to a deeper understanding of the role of Flow Experience during loyalty formation. Flow Experience had the strongest effect on Player Satisfaction, which highlights the theoretical significance of players' psychological involvement in the game during gameplay. The descriptive results also indicated that the feeling of involvement while playing was one of the strongest aspects of the construct Flow Experience. This implies that gameplay has a function other than entertainment as a highly engaging experience can influence the overall evaluation of the game and help satisfaction (Hsu & Lu, 2004). Thus, the findings support the theoretical proposition that immersive gameplay experiences are an important foundation for positive long-term relationships between players and live-service games.

Third, research adds to the knowledge of Rewards by showing that they are not merely an incentive for continued loyalty engagement. The highest-evaluated aspect of the Rewards construct was related to the usefulness of rewards for gameplay progression. The results suggest that players may value prizes that provide real benefits to their experience and progression in the game. The theoretical

implications of this study include that rewards can be significant to pleasure and loyalty if they are seen as worthwhile and relevant to the whole gaming experience of the player rather than just short-term incentives. Previous research has similarly shown that utilitarian benefits can contribute to users' attitudes and continued use of gamified services (Hamari & Koivisto, 2015). In the context of *gacha* games, this finding provides further support for understanding rewards as part of the perceived value of the overall player experience rather than simply as mechanisms for stimulating short-term engagement.

Fourth, studies highlight the value of Content Marketing toward the entire player experience. The results of the descriptive study have proved that the most positively assessed feature of Content Marketing was engaging promotional content. So for instance, a game and its players might be better served with material that is not direct gaming, as long as it is able to attract and hold the interest of players. The finding is in line with research suggesting that informative and engaging branded content can improve consumers' experiential assessments and help develop brand loyalty (Lou & Xie, 2021). Research also has shown that appealing and imaginative social media content can influence consumer involvement (Ashley & Tuten, 2015). The findings, therefore, increase the understanding of Content Marketing in the gaming context, indicating that promotional communication can contribute to happiness and loyalty in the ongoing relationship between the developer and the player.

Finally, the results support the theoretical function of Player Satisfaction as a main mechanism for the formation of True Loyalty. Player Satisfaction was most directly related to True Loyalty and strongly mediated the relationships between Rewards, Flow Experience and Content Marketing and True Loyalty. This finding is consistent with relationship marketing perspectives in which satisfaction contributes to the development of stronger long-term relationships (Morgan & Hunt, 1994). It is also consistent with the broader loyalty literature, which emphasizes the importance of attitudinal and behavioral components in the formation of customer loyalty (Dick & Basu, 1994). Descriptive data also showed that respondents regarded their decision to play *Honkai: Star Rail* positively and enthusiastically. Meanwhile, emotional attachment was the most salient feature of True Loyalty,

which suggests that in this situation loyalty does not only represent recurring engagement but also an emotionally bond with the game. Therefore, the findings provide empirical proof that players' overall pleasure and eventual emotional commitment to the game can be influenced by good incentives, gameplay experiences, and content-related experiences, leading to higher loyalty.

5.2.2. Managerial Implications

The findings of this study have several managerial implications for HoYoverse and other video game developers, especially those of the live-service genre. First, as Flow Experience has the most impact on Player Satisfaction, developers must pay attention to retain the gameplay experience that keeps the players involved and engaged. The major strength of Flow Experience was the feeling of being entirely connected while playing therefore future content and gameplay systems should focus on keeping player participation, enjoyment and immersion. That means finding the right ratio of challenge and ease, delivering relevant activities, and also making sure that new content is engaging for users who are actively interacting, not just passively consuming stuff.

Secondly, reward systems must have meaningful value for progression in game play. incentives The biggest plus point for the Rewards variable was the usefulness of the incentives for growth, which means HoYoverse should have a reward system that helps players feel their time and effort are leading to major benefits. Immediate benefits such as login prizes, maintenance payments and redemption tickets can help maintain regular interaction while progression- and event-based awards should provide a sense of achievement and considerable growth. Therefore, the reward strategy should focus on the perceived utility and value, rather than just increasing the frequency or quantity of reward.

Third, Content Marketing needs to stay with interesting and engaging promotional content. The most compelling aspect of the construct was interesting promotional content, so HoYoverse can maintain player engagement with its Special Programs, trailers, character campaigns, version previews and other stuff that is both informative and enjoyable. These activities are especially critical in a live service setting as they can help keep players engaged with the game during the time between major upgrades and gameplay sessions. Content Marketing is not

simply another promotional technique. And it is also a way of keeping a continued relationship between the game and its user community.

Fourth, Player Satisfaction should be a strategic objective in player retention management. The results show that satisfaction is particularly essential in directly impacting True Loyalty and playing a mediating role in the influence of the other antecedent variables. With such strong positivity in respondent sentiment on their decision to play *Honkai: Star Rail*, HoYoverse should look to uphold a constantly pleasant overall player experience, so that players continue to feel that their time and effort invested in the game is paying off. Therefore, developers should watch out for the feedback from players on the quality of gameplay, progression, rewards, game balance and communication as unhappiness with any of these might undermine the overall player experience.

Lastly, long-term loyalty initiatives should focus on strengthening emotional connection and not just on play frequency, retention or monetization. The strongest point of True Loyalty was emotional attachment, i.e. the relationship of players with *Honkai: Star Rail* is about an affective connection with the game. So HoYoverse may continue to build on this relationship through captivating storytelling, character development, world-building, unique game experiences and meaningful engagement with the player community. By integrating intriguing gameplay, relevant prizes, interesting promotional content and a continuously rewarding player experience, developers may better position themselves to create actual long-term commitment rather than just short-term involvement or spending.

5.3. Limitations

The limitations of this study include research context, characteristics of the respondents, research design, sample size and choice of variables. First, this study is specific to *Honkai: Star Rail* and the results may not be generalizable to other *gacha* games or live-service games with different gameplay systems, monetization models, player communities, and content strategies. Accordingly, results should be interpreted with *Honkai: Star Rail* in mind and may not generalize to all mobile games.

Second, this study is also limited to the players of *Honkai: Star Rail* who are living in Indonesia. This provides empirical evidence in an Indonesian player

community, but player perception and loyalty in other countries may vary due to the different cultural background, gaming preferences, spending behavior and player communities. The study used purposive sampling in which respondents were selected based on some pre-determined criteria. Therefore, the findings might not be generalized to all of the *Honkai: Star Rail* players in Indonesia.

Third, the present study adopted a cross-sectional research design that gathers the perceptions of the respondents at a single point of time. *Honkai: Star Rail* is a live service game that is always changing, and new updates, characters, events, gameplay systems, and metagame developments may affect how players feel about the game in the future. Therefore, the results reflect the relationship between the research variables at the time of data collection and may not fully reflect changes in player satisfaction and loyalty over a longer period of time.

Fourth, the research is restricted to the variables in the proposed research model which are Rewards, Flow Experience, Content Marketing, Player Satisfaction and True Loyalty. These variables include important aspects of loyalty formation but not all the factors which could influence Player Satisfaction and True Loyalty. The structural model also has explanatory power, which, in turn, means that there may be more factors outside of the current model that can explain the variation in these constructs. So other reasons for player loyalty might be quality of a game, community engagement, perceived fairness, trust to the developer, social interaction or effects of metagame changes.

Finally, the study is based on self-reported responses collected with a structured online questionnaire. The questionnaire was distributed online as well as at a convention where a QR code was used to directly access the questionnaire. However, the results are still subject to the personal perceptions, experiences and the ability of the respondents to accurately assess their own attitudes and behavior, so the answers are open to interpretation or to passing experiences with the game at the moment of filling in the questionnaire.

5.4. Recommendation

Further research is recommended to address these issues due to the limitations of this study, and to add to a more complete understanding of *gacha* mobile gaming and player loyalty. Firstly, this study is limited to *Honkai: Star Rail*

only. Future studies should take a broader perspective, using other *gacha* and related live-service games as research objects, to see if the results would be similar. Second, future research may include other respondents from different regions to provide another perspective, and to assess the potential influence of culture on the findings and conclusions of this study. Third, it is a live-service game in which the contents of the game are continuously updated and changed; thus, a longitudinal study can be conducted to generate more meaningful results and to investigate the game development and player loyalty in a dynamic environment. Fourth, other variables have to be considered . A number of factors are likely to predict true loyalty. It includes factors such as trust in the developer, fairness, game quality, community and social dynamics, and perceptions of power creep and metagame changes. Finally, in the future, researchers can combine questionnaire survey with qualitative methods, such as interview, for a more in-depth understanding of the research problem and capture players' real perception of the influence of various factors on their true loyalty to the *gacha* mobile game.

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APPENDIXES

Appendix A: Questionnaire

Questionnaire for MBA Thesis : THE ANTECEDENTS OF TRUE LOYALTY IN GACHA MOBILE GAMES: A CASE STUDY IN “*HONKAI: STAR RAIL*”

Hello everyone,

Thank you for taking your time to answer this questionnaire!

My name is Andrea Nadya Sentosa, and I'm a student pursuing a Master of Business Administration (MBA) at IPMI International Business School. I'm currently conducting a research on "*The Antecedents of True Loyalty in Gacha Mobile Games: A Case Study in "Honkai: Star Rail"*". This thesis aims to investigate how in-game mechanics and external factors of *Honkai: Star Rail*, specifically rewards, the flow experience (how deep is your immersion towards the game), and content marketing (from HoYoverse) influence player satisfaction and ultimately sustain true loyalty among players in Indonesia, especially amidst the current rapid shift of the metagame and power creep. This thesis is under supervision by Dr. Liza Agustina Maureen Nelloh, SE., MM, CDM.

Please fill out all questions according to your honest opinion and experience.

Your participation in this survey is incredibly important for my thesis and for earning my MBA degree. Your feedback and insights will also significantly enhance the understanding of this topic. Thank you for your time and valuable contributions.

Best Regards,

Andrea Nadya Sentosa

Postgraduate Student

IPMI International Business School

Part 1: Screening

Please put a checklist (✓) on the options that suits your choice. If you answer "Yes", please continue to the next question. If you answer "No", you do not meet any of these criteria and you can exit this survey at this point.

1. Are you 18 years old or older?
☐ Yes - Move on to next question.
☐ No - Stop here.
2. Do you currently reside in Indonesia, more specifically in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) region?
☐ Yes - Move on to next question.
☐ No - Stop here.
3. Have you played or currently playing *Honkai: Star Rail*?
☐ Yes - Move on to next question.
☐ No - Stop here.
4. In *Honkai: Star Rail*, have you reached Trailblazer Level 20 or above?
Note: Trailblazer Level is the player's account level in *Honkai: Star Rail*.
☐ Yes - Move on to next question.
☐ No - Stop here.
5. In *Honkai: Star Rail*, have you obtained at least one 5-star character from the Beginner Warp, Standard Warp, or Limited Character Warp?
☐ Yes - Move on to next question.
☐ No - Stop here.
6. In *Honkai: Star Rail*, have you at least completed the *Jarilo-VI* storyline (*Belobog* arc)?

Note: *Jarilo-VI* is the first planet/stage after the prologue stage of the game (*Herta Space Station*). It is also the first chapter of the game's main story.

- ☐ Yes - Move on to next question.
- ☐ No - Stop here.

Part 2: Respondent Profile

Please read each question's description and select the most appropriate option.

1. Gender

- ☐ Male
- ☐ Female

2. Age

- ☐ 18 – 24 years old
- ☐ 25 – 34 years old
- ☐ 35 – 44 years old
- ☐ $\geq$ 45 years old

3. Domicile

- ☐ Jakarta
- ☐ Bogor
- ☐ Depok
- ☐ Tangerang
- ☐ Bekasi

4. Occupation

- ☐ Student
- ☐ Employee
- ☐ Entrepreneur
- ☐ Freelancer
- ☐ Unemployed

☐ Other: _____

5. How long have you played *Honkai: Star Rail*?

- ☐ Less than 6 months
☐ 6 - 12 months
☐ 1 - 2 years
☐ More than 2 years

6. Have you ever spent real money in *Honkai: Star Rail*?

- ☐ Yes
☐ No - I'm a Free-to-Play (F2P) player.

7. If you answered "Yes" in the previous question, approximately how much have you spent on the game in average?

Note: You can skip this if you answered "No" in the previous question.

- ☐ < Rp. 100,000
☐ Rp. 100,000 - Rp. 249.000
☐ Rp. 250,000 - Rp. 479.000
☐ Rp. 480,000 - Rp. 799.000
☐ Rp. 800,000 - Rp. 1.599.000
☐ > Rp. 1.600.000

Part 3: Questionnaire Content

The following questions will describe your assessment of your experience of playing *Honkai: Star Rail*. Please select one option that suits your choice from strongly agree to strongly disagree.

No.	Questions	Likert Scale				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Honkai: Star Rail's Rewards						

No.	Questions	Likert Scale				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
RW1	The game provides sufficient rewards for my participation in gameplay activities.					
RW2	The rewards provided by the game are useful for my gameplay progression.					
RW3	Receiving rewards from the game gives me a sense of accomplishment.					
RW4	The rewards offered by the game motivate me to continue playing.					
RW5	Receiving rewards from the game makes the gameplay experience more enjoyable.					
2. Honkai: Star Rail's Flow Experience						
FE1	I'm fully engaged while playing Honkai: Star Rail.					
FE2	I enjoy playing Honkai: Star Rail.					
FE3	I feel in control of my actions while playing the game.					
FE4	I feel I want to keep playing Honkai: Star Rail.					
FE5	Playing the game completely absorbs my attention.					
3. Honkai: Star Rail's Content Marketing by HoYoverse						
CM1	HoYoverse provides useful information regarding upcoming game content updates.					
CM2	The promotional content released by HoYoverse is interesting.					
CM3	Developer livestream content increases my interest in the game.					

No.	Questions	Likert Scale				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
CM4	HoYoverse consistently communicates future game development.					
CM5	The marketing content increases my confidence in the future development of the game.					
4. Player Satisfaction towards <i>Honkai: Star Rail</i>						
PS1	Honkai: Star Rail meets my expectations.					
PS2	Playing Honkai: Star Rail is worth the effort I invest.					
PS3	Overall, I am satisfied with Honkai: Star Rail.					
PS4	My experience with Honkai: Star Rail has been positive.					
PS5	Choosing to play Honkai: Star Rail was a good decision.					
5. True Loyalty towards <i>Honkai: Star Rail</i>						
TL1	Honkai: Star Rail is my preferred game among similar games.					
TL2	I would recommend Honkai: Star Rail to other people.					
TL3	I intend to remain committed to Honkai: Star Rail for a long time.					
TL4	I would continue playing Honkai: Star Rail even if many competing games are available.					
TL5	I feel emotionally attached to Honkai: Star Rail.					

Appendix B: QR Code for Questionnaire

