

**ROGUELIKE GAME'S MECHANICS INFLUENCE TOWARD PRE-PLAY
PURCHASE INTENTION**



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ABSTRACT

The global video game industry has witnessed exponential growth in recent years, with digital distribution platforms enabling players to purchase games prior to any hands-on experience. In this context, understanding the factors that drive pre-play purchase intention—consumers' willingness to buy a game before playing it—has become increasingly crucial, especially for niche genres such as roguelike games. Roguelike games, distinguished by mechanics such as procedural generation, permadeath, and persistence systems, present unique gameplay experiences that may significantly influence players' perceptions and purchase decisions. This study explores how these core mechanics impact potential players' attitudes toward a game, their intention to play, and ultimately their intention to purchase before experiencing the game firsthand.

Drawing upon established theories in consumer behavior and game studies, this research develops a conceptual framework linking three primary roguelike mechanics—procedural generation, permadeath, and persistence systems—to two psychological constructs: attitude toward the game and intention to play. The framework hypothesizes that these mechanics positively influence players' attitudes and intentions, which in turn drive pre-play purchase intentions. To empirically test these relationships, the study employs a quantitative methodology, utilizing an online survey distributed among active members of roguelike gaming communities. The survey instrument, rigorously validated for reliability, collects data on participants' demographic profiles, gaming habits, familiarity with roguelike mechanics, and their responses to constructs measured on established Likert scales.

Data analysis is conducted using structural equation modeling to examine the hypothesized relationships. The results reveal that all three mechanics—procedural generation, permadeath, and persistence systems—exert significant positive effects on players' attitudes toward roguelike games. Notably, procedural generation and persistence systems also have

direct positive impacts on intention to play, while permadeath's influence is more nuanced, affecting intention to play primarily through its effect on attitude. Furthermore, both attitude toward the game and intention to play are found to be strong predictors of pre-play purchase intention, highlighting the importance of psychological engagement even before gameplay begins.

The findings offer valuable insights for game developers and marketers. Emphasizing the innovative aspects of roguelike mechanics in pre-release marketing materials can enhance potential players' perceptions and stimulate purchase intention prior to hands-on experience. For developers, understanding which mechanics resonate most with players can inform design choices that maximize market appeal. From an academic perspective, this study contributes to the literature on video game consumer behavior by elucidating the mechanisms through which gameplay features translate into commercial outcomes.

In conclusion, the study demonstrates that the distinctive mechanics of roguelike games play a pivotal role in shaping pre-play purchase intention by influencing player attitudes and intentions. As the digital game market continues to evolve, these insights underscore the significance of aligning game design and marketing strategies with the psychological drivers of consumer decision-making. Future research is encouraged to explore these dynamics across other game genres and cultural contexts, as well as to investigate the long-term effects of pre-play purchase decisions on player satisfaction and loyalty.

Keywords: Roguelike Games, Game Mechanics, Pre-Play Purchase Intention, Procedural Generation, Permadeath, Persistence Systems, Attitude Toward Game, Intention to Play, Video Game Marketing, Consumer Behavior

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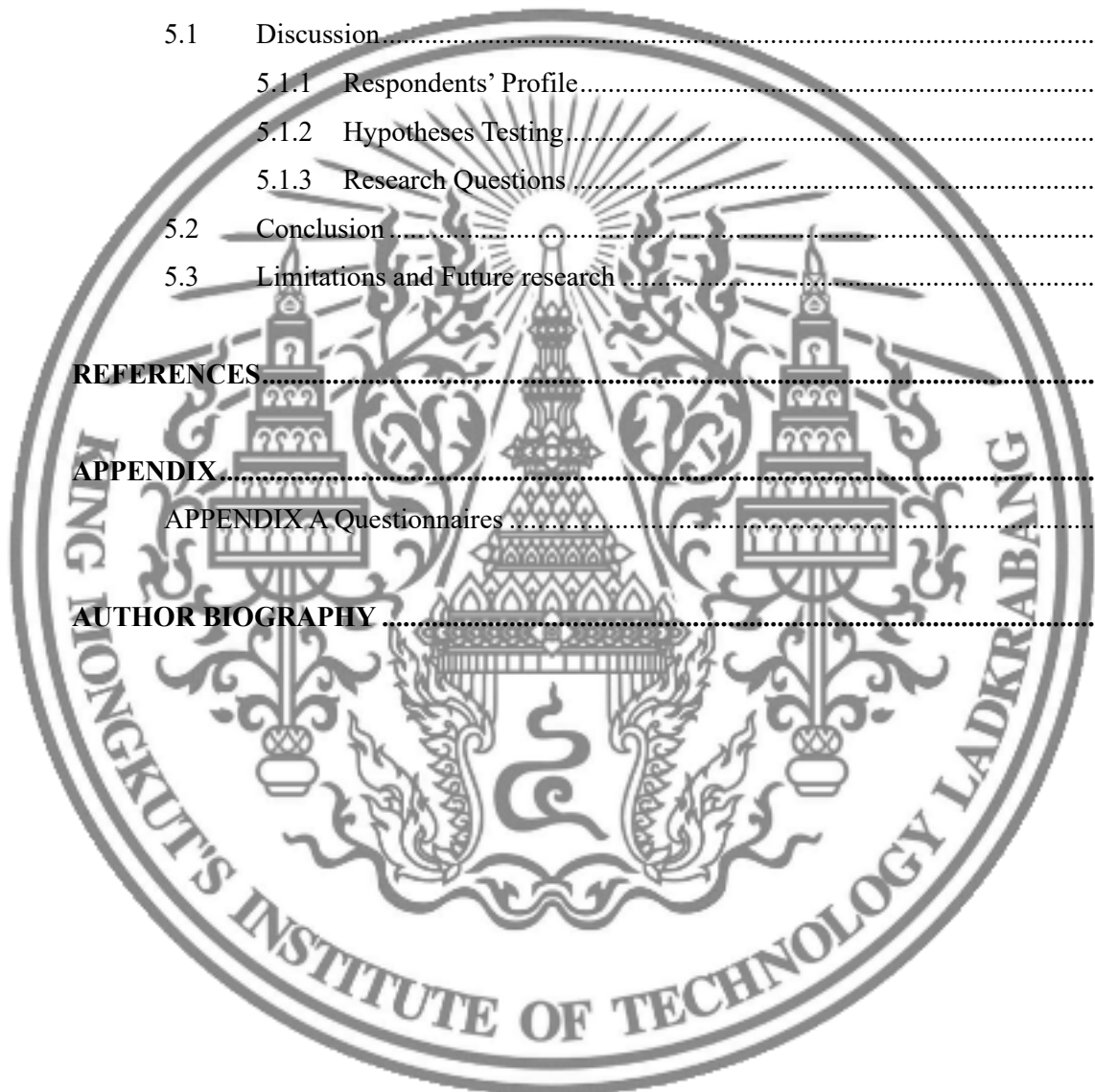
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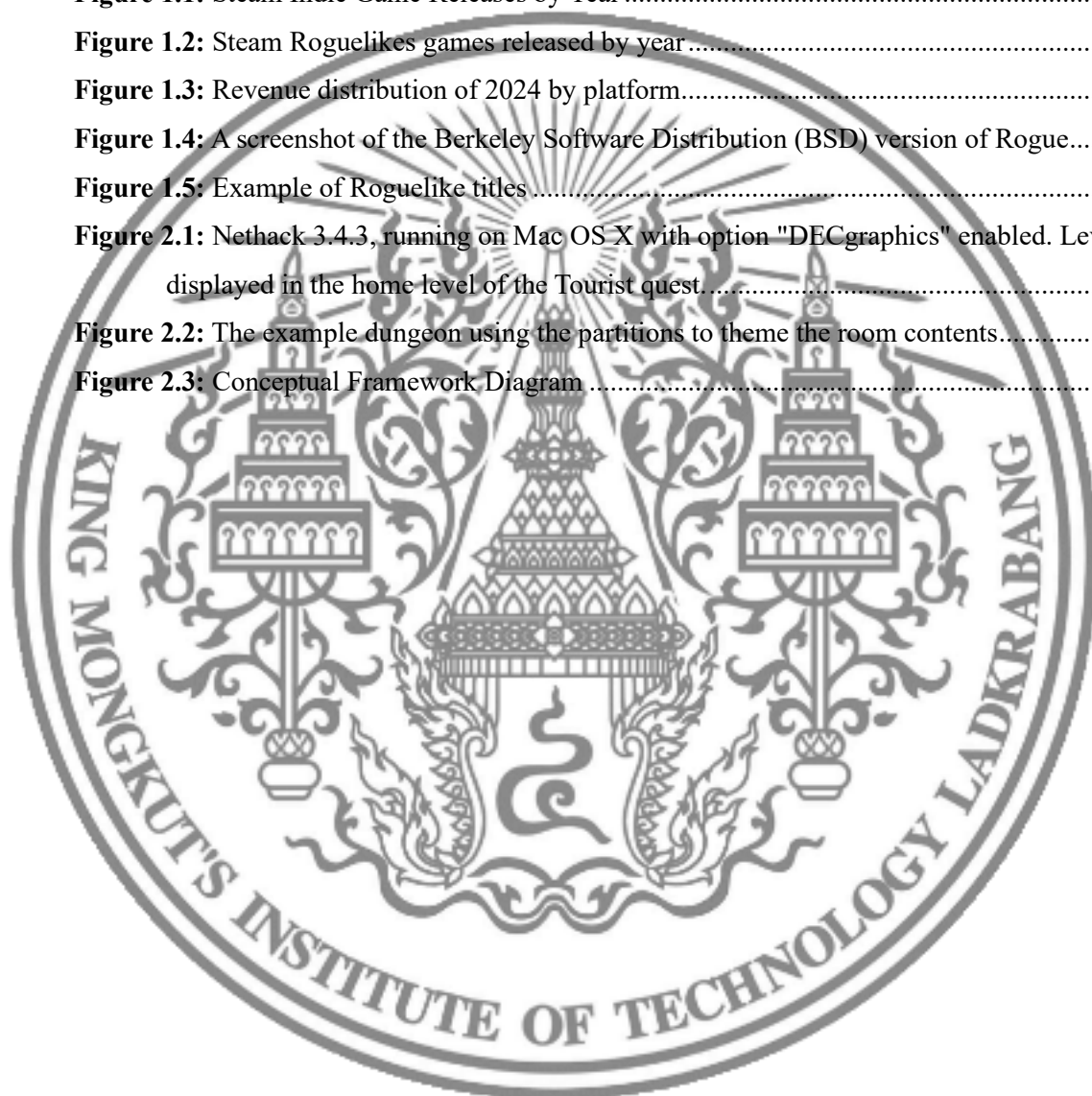
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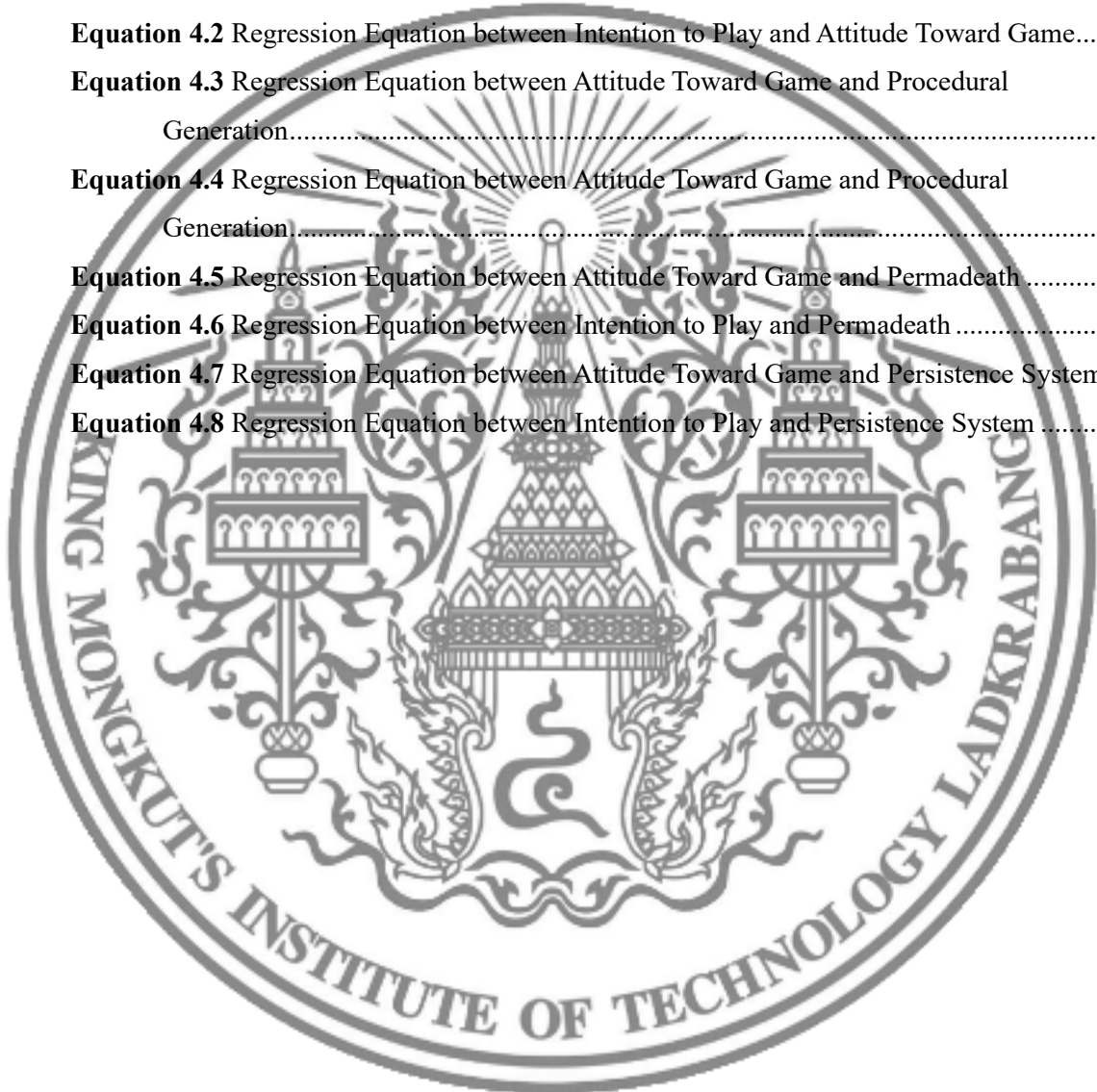
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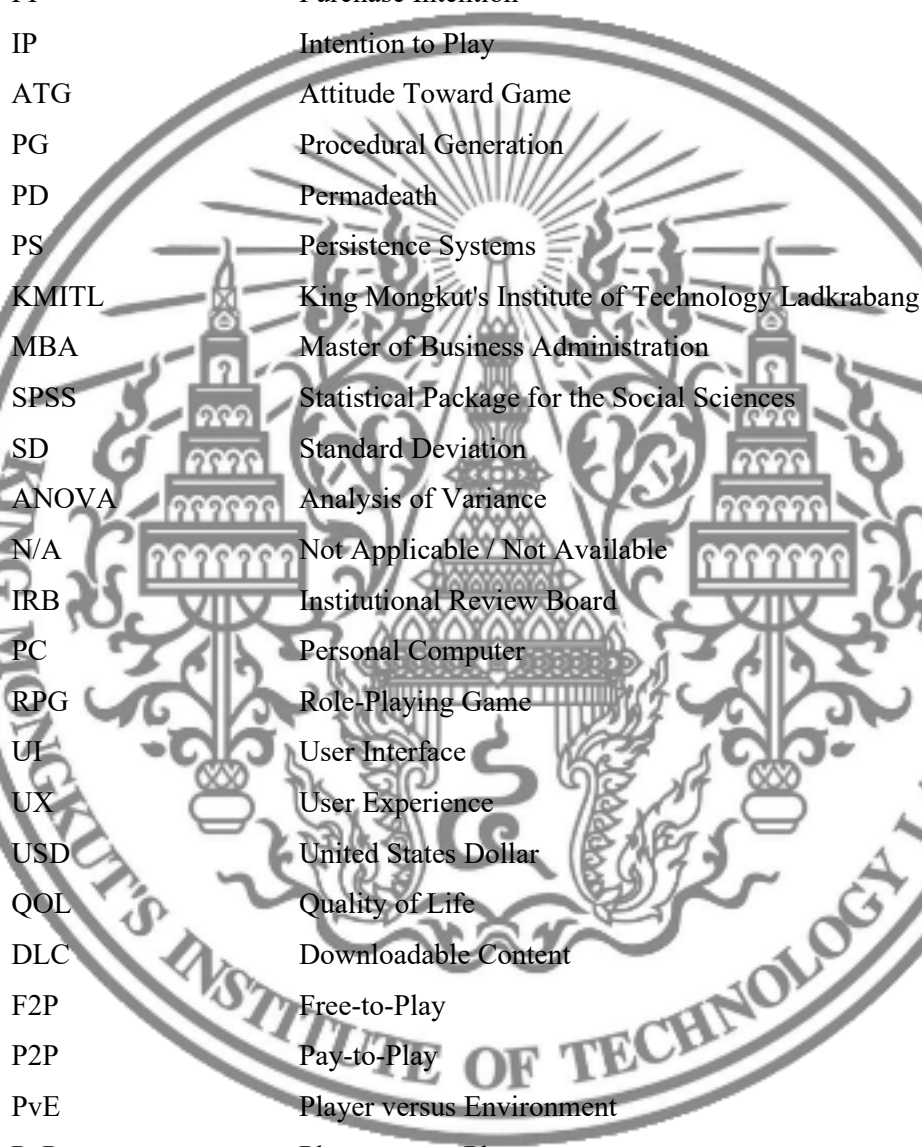


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LIST OF ABBREVIATIONS



iThesis	iThesis
PI	Purchase Intention
IP	Intention to Play
ATG	Attitude Toward Game
PG	Procedural Generation
PD	Permadeath
PS	Persistence Systems
KMITL	King Mongkut's Institute of Technology Ladkrabang
MBA	Master of Business Administration
SPSS	Statistical Package for the Social Sciences
SD	Standard Deviation
ANOVA	Analysis of Variance
N/A	Not Applicable / Not Available
IRB	Institutional Review Board
PC	Personal Computer
RPG	Role-Playing Game
UI	User Interface
UX	User Experience
USD	United States Dollar
QOL	Quality of Life
DLC	Downloadable Content
F2P	Free-to-Play
P2P	Pay-to-Play
PvE	Player versus Environment
PvP	Player versus Player
NFT	Non-Fungible Token
AI	Artificial Intelligence
VR	Virtual Reality
AR	Augmented Reality
ROI	Return on Investment

CHAPTER 1

INTRODUCTION

1.1 Introduction

The video game industry has experienced remarkable growth over recent years, with 2024 marking a significant milestone in its evolution. The global gaming market continues to expand at an unprecedented rate, driven by technological advancements such as virtual reality (Molchanov, 2025), augmented reality, and cloud-based gaming technologies (Gelbart, 2025). These innovations have not only enhanced the quality of gameplay but also broadened the reach of games across various platforms, including consoles, PCs, mobile devices, and emerging hardware like VR headsets. The industry's growth is further fueled by the increasing popularity of digital entertainment, as more people worldwide are turning to video games for recreation, social interaction, and even educational purposes. This dynamic sector is characterized not only by technological progress but also by a diverse array of game genres that cater to an equally varied spectrum of player preferences.

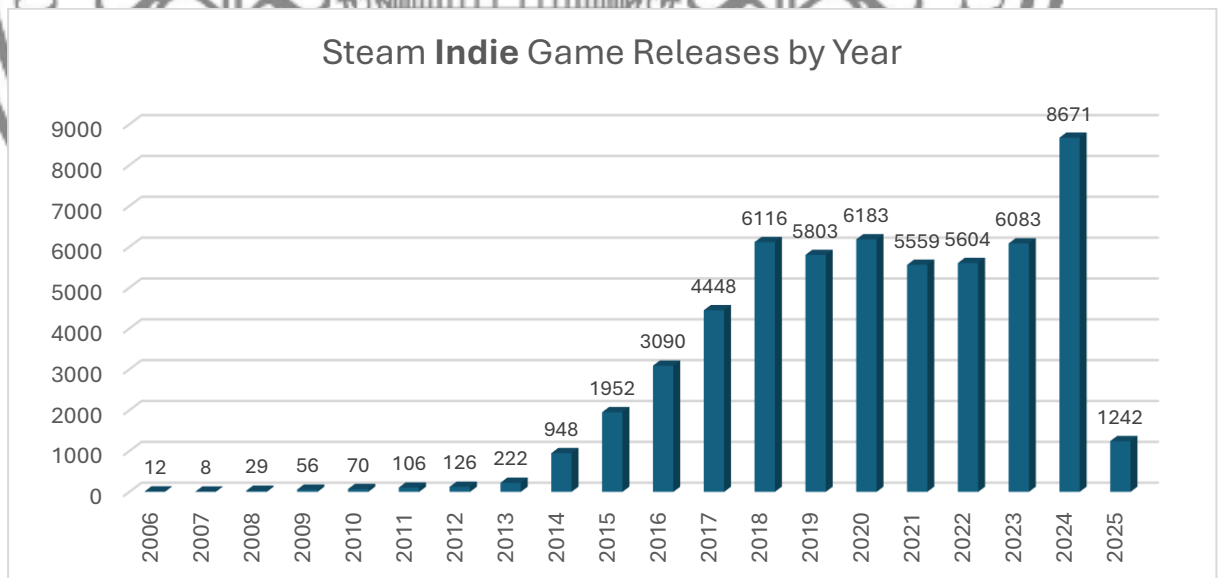


Figure 1.1: Steam Indie Game Releases by Year

Source: SteamDB (2025a)

Within this expansive gaming landscape lies the indie games scene, a vibrant and innovative segment that has emerged as a significant force in recent years (Gardner, 2025).

Unlike traditional AAA titles developed by large studios, indie games are typically created by smaller teams or individual developers who prioritize creativity and innovation over sheer scale. These independent efforts have carved out a niche by creating unique experiences that often challenge conventional game design conventions. Indie developers have demonstrated remarkable resilience and adaptability, leveraging digital distribution platforms such as Steam, Itch.io, and the App Store to reach global audiences without the need for large publishing deals or extensive marketing budgets.

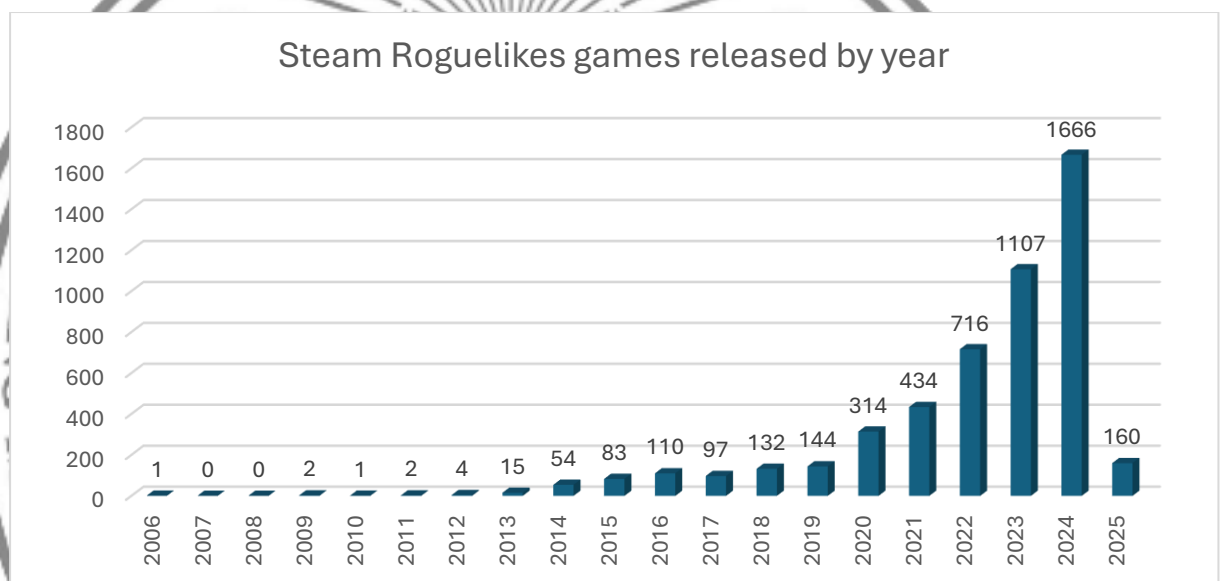


Figure 1.2: Steam Roguelikes games released by year

Source: SteamDB (2025b)

Among these indie offerings, Roguelike and Roguelite games have gained considerable attention due to their distinct mechanics and engaging gameplay. These genres are defined by several key features that set them apart from traditional role-playing games (RPGs). Roguelikes, in particular, are characterized by permadeath mechanics, meaning players must start over if they fail, and procedurally generated content, which creates unique environments and challenges each time the game is played. This combination of risk and reward has created a dedicated player base that craves fresh challenges and deep strategic thinking. (Pilon, 2022)

Despite their growing popularity, only a small percentage of Roguelike/Roguelite games achieve significant commercial success. Only 197 roguelike tagged games have net revenue over \$1 million, 55 games exceed \$5 million, and 29 games exceed \$10 million. The current top 3 highest net revenues are Hades, Risk of Rain 2, and Don't starve Together with ~\$120 million, ~\$100 million, and ~\$97 million (Games-Stats.com, 2025). While these titles

have achieved critical acclaim and substantial sales figures, many others struggle to gain traction in the market. This observation highlights a critical gap in understanding what drives players' purchase intentions within this specific genre.

Several previous studies (Agag et al., 2019; Ali et al., 2023; Gaffar et al., 2022; Hsu & Lu, 2004; Lee, 2009; Rafdinal & Qisthi, 2020; Schoenau-Fog, 2011) frequently adopt a one-size-fits-all approach, using general variables to fit all games and genres, when examining consumer behavior across various game types, potentially missing out on valuable insights that could be gleaned from genre-specific analysis. For instance, the psychological appeal of permadeath mechanics or the role of procedural generation in enhancing replayability (Bycer, 2021) are factors that may significantly influence players' purchasing decisions but have yet to be thoroughly explored. This generalization is understandable why they are using those approaches for their research, but it is problematic because it limits our ability to develop effective marketing strategies and business models tailored to each game's genre.

Recent studies (Abbasi et al., 2023; CHOU & KIMSUWAN, 2013; Gaffar et al., 2022; Hsu & Lu, 2004; Hussain et al., 2021; Kolek et al., 2023; Laurence et al., 2023; Lee, 2009; Mkedder et al., 2024; Park & Lee, 2011; Rafdinal & Qisthi, 2020; Souza & Freitas, 2017; Tumtong, 2020; Yu & Huang, 2022) have increasingly focused on freemium and free-to-play (F2P) games, particularly examining how these models influence purchasing intentions related to in-game content rather than the initial purchase of the base game. This shift reflects the growing prevalence of F2P and freemium business models, where players can access games for free but are encouraged to make purchases within the game through microtransactions. These studies highlight that developers can maintain player engagement by offering immediate gameplay while generating revenue from in-game purchases.

While free-to-play (F2P) models dominate many modern gaming markets, especially on mobile platforms, research has predominantly focused on consumers' intentions to purchase in-game content, somewhat overshadowing the study of why and when players choose to buy the base game outright. Despite the prevalence of F2P, a notable segment of players—often hardcore gamers or those in traditional gaming markets—still prefer the pay-to-play model, where an upfront purchase is required. Understanding both types of purchasing intentions is essential for developers aiming to address diverse consumer preferences. By examining the factors influencing decisions to purchase either the base game or in-game content, developers can better tailor monetization strategies to engage different player demographics effectively, thereby meeting the evolving needs and expectations within the gaming landscape (Pilon, 2022). This dual focus is particularly relevant in genres like Roguelikes, where unique

mechanics such as permadeath and procedural generation create distinct player experiences that may influence pre-play purchase intentions differently compared to other game types.

This study aims to address a critical gap in the understanding of what drives players' intentions to purchase Roguelike games by conducting an in-depth exploration of how specific mechanics—such as procedural generation, permadeath, and persistence systems—affect player attitudes and purchasing behavior. While the video game industry has experienced remarkable growth, with technological advancements and the rise of indie development expanding both the diversity and reach of games (Gardner, 2025; Molchanov, 2025), only a small fraction of Roguelike titles achieves notable commercial success despite the genre's popularity and dedicated player base (Pilon, 2022; SteamDB, 2025b). By examining the relationship between these core gameplay mechanics, player experiences, and pre-play purchase intentions, this research seeks to provide both academic insights and practical guidance for indie developers and marketers. Ultimately, the study aims to bridge the gap between theoretical understanding and real-world application, helping developers better tailor their strategies to meet player expectations and enhance market success within the competitive landscape of Roguelike games.

1.2 Background of Study

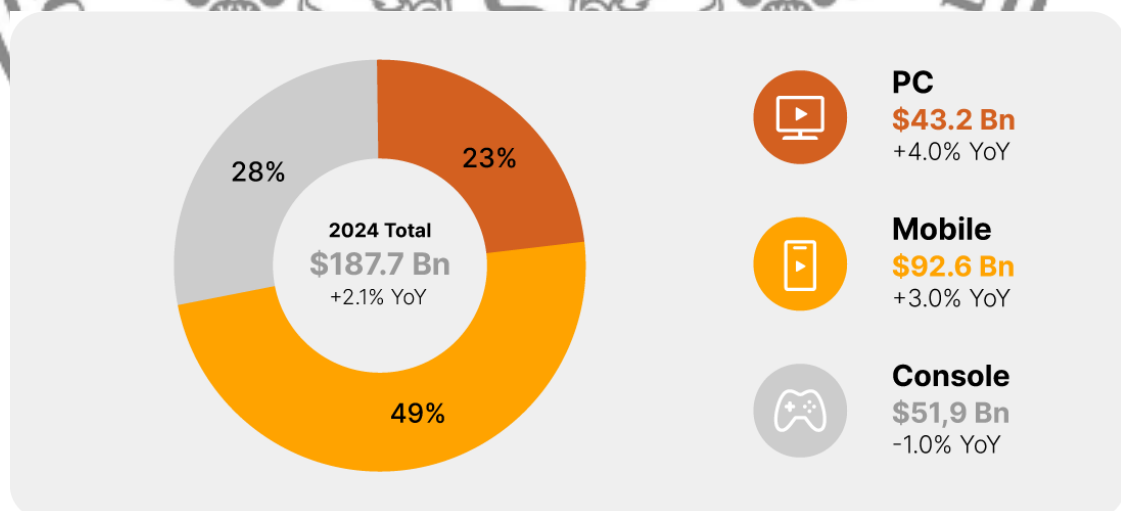


Figure 1.3: Revenue distribution of 2024 by platform

Source: newzoo.com (2025)

The video game industry in 2024 is a vibrant and rapidly growing sector, contributing significantly to global entertainment revenue with annual revenues exceeding \$187.7 billion,

marking a 2.1% increase from the previous year. This substantial economic influence is propelled by diverse segments, with mobile gaming emerging as the largest contributor—generating \$92.6 billion—largely due to the popularity of free-to-play models, in-app purchases, and the accessibility of mobile platforms (Gibson et al., 2023; Lee et al., 2016; Saaranen, 2024). Notably, the PC gaming segment exhibited the highest growth rate at 4%, driven by a wide array of genres, including indie games, which have become a cornerstone of innovation and creativity within the gaming community (*Results and Trends of the Gaming Market in 2024, 2025*). The rise of emerging markets in the Asia-Pacific region, particularly China, Japan, and South Korea, has further fueled this growth, with China alone generating over \$94 billion in gaming revenue. This region has experienced a surge in gaming adoption, especially in mobile gaming, significantly contributing to global revenue figures. Additionally, the expansion of esports and live-streaming platforms such as Twitch has added new layers of engagement and profitability, particularly for PC and console platforms. The sustained expansion of the industry underscores the importance of understanding market trends and consumer preferences to capitalize on future opportunities. As technology continues to evolve, especially with advancements in cloud gaming that eliminate the need for costly hardware upgrades, the potential for further growth in the video game industry remains immense.

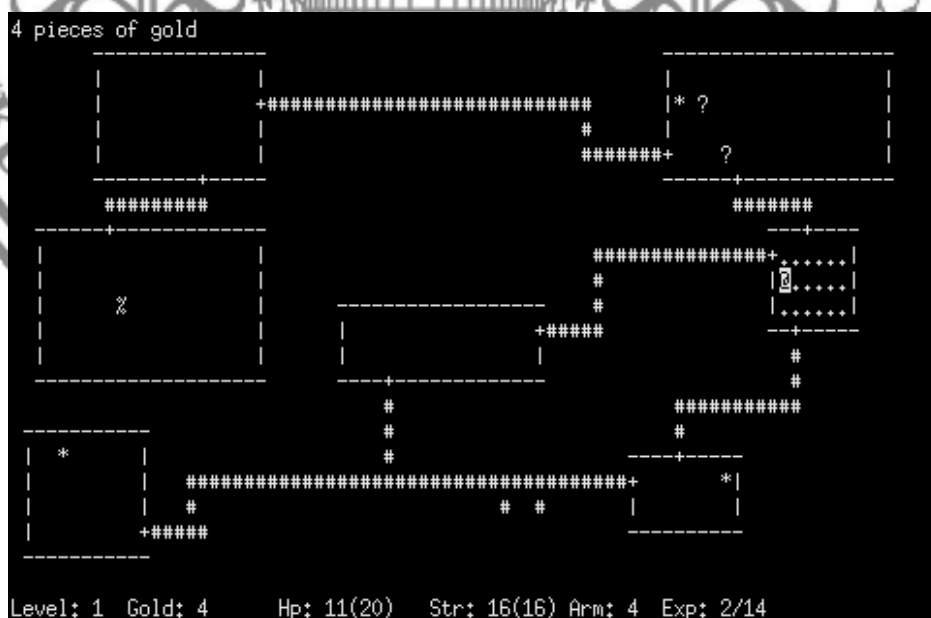


Figure 1.4: A screenshot of the Berkeley Software Distribution (BSD) version of Rogue
Source: Thedarkb (2021)

The indie game market has become a significant force in the video game industry, characterized by independent developers creating unique and innovative experiences, with thousands of titles released annually across various platforms (Gardner, 2025). However, this market is highly competitive; while Roguelike and Roguelite games—known for their challenging mechanics and replayability, drawing from the legacy of *Rogue* with procedurally generated levels, permadeath, and strategic decision-making—represent a distinctive subset of indie games, only a small percentage achieve notable commercial success (Pilon, 2022; SteamDB, 2025b).

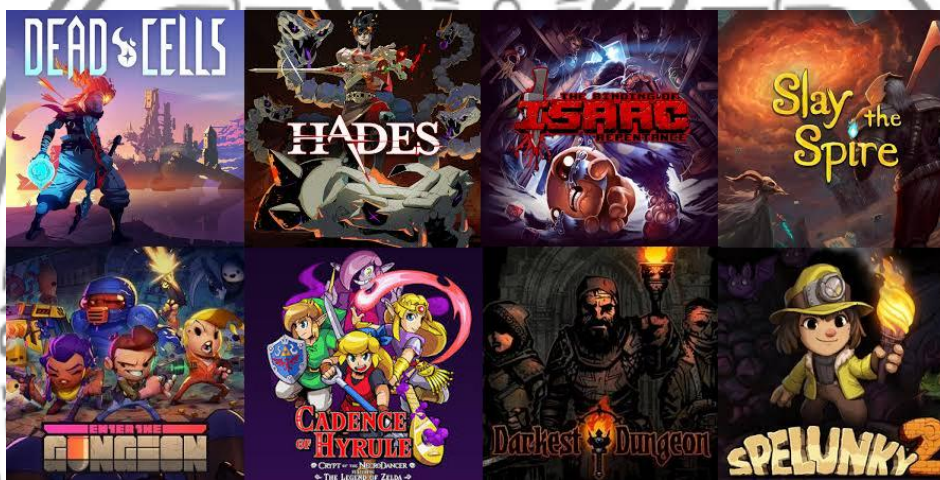


Figure 1.5: Example of Roguelike titles

Source: Mitchell231190 (2024)

Considering *Balatro*, a card roguelike game, get Best Independent Game, Best Debut Indie Game, and Best Mobile Game (Moore, 2024), roguelikes look promising to be the source for developing new video game. Understanding the specific mechanics that influence player purchasing decisions in this genre can provide valuable insights for developers (Gaffar et al., 2022). This study aims to address this gap by examining how specific Roguelike mechanics ("procedural generation," "permadeath," and "persistence systems") influence pre-play purchase intentions, focusing on understanding these dynamics to help developers align their marketing strategies and design choices with player preferences, potentially enhancing commercial success.

1.3 Significance of the study

This study explores how specific game mechanics in Roguelike games influence players' attitudes and intentions to purchase these games before playing them. The research is particularly relevant to the indie gaming market, where success often hinges on innovation, word-of-mouth, and community engagement rather than large-scale marketing campaigns typical of AAA titles. Roguelikes, known for their procedural generation, permadeath mechanics, and replayability, have carved a niche in this competitive space. However, understanding what drives players to commit to purchasing these games without prior experience remains underexplored.

The study focuses on pre-play purchase intention (PPPI) as a key metric for developers aiming to optimize their marketing strategies. Digital platforms like Steam and Itch.io are vital for indie game success, and understanding how mechanics such as procedural generation or meta-progression impact purchasing decisions can help developers better position their games. For example, highlighting gameplay features that emphasize replayability or skill-based challenges in trailers or promotional material can tap into players' hedonic forecasting, increasing the likelihood of pre-purchase. Beyond practical applications, this research contributes to broader academic discussions on gaming studies and consumer behavior by bridging game design with purchasing psychology. It also extends existing literature on purchase intentions by focusing on PPPI—a less commonly explored area compared to post-play monetization models like microtransactions or DLCs. The findings are particularly valuable for niche markets like Roguelikes, offering insights not only for developers in this genre but also to creators of other genres that rely on similar mechanics, such as survival or strategy games.

While acknowledging limitations such as reliance on self-reported data for purchase intentions, the study emphasizes its contributions to both academic and practical realms. By addressing a critical gap in understanding pre-play purchasing behavior, it provides actionable insights for indie developers seeking to thrive in an increasingly competitive market while advancing theoretical discussions about player psychology and game design. The findings highlight the importance of speculative value in player decision-making processes and underscore the unique dynamics of niche markets like Roguelikes. These insights can enhance game design and marketing approaches across genres, helping creators better align their strategies with players' expectations and behaviors.

1.4 Research Questions

1. Which specific Roguelike mechanics (procedural generation, permadeath, persistence meta-progression system) create the most preferred game features by gamers?
2. How do these mechanics influence players' attitudes towards the game and the Intention to Play of the gamers?
3. What is the relationship between attitude toward playing and intention to purchase among gamers in this genre?
4. What development strategies can enhance player preference based on identified mechanics' impacts?

1.5 Research Objectives

1. To identify specific Roguelike mechanics which create preferred game features by gamers.
2. To analyze how these mechanics affect players' attitudes towards games and the Intention to Play of the gamers.
3. To examine the relationship between gamers' attitudes toward playing and their intention to purchase within this genre.
4. To identify and propose development strategies that enhance player preference by analyzing the impact of specific game mechanics.

1.6 Research Hypothesis

H1: Intention to Play has a positive influence on Purchase Intention.

H2: Attitude Toward Game has a positive influence on Intention to Play.

H3: Procedural Generation has a positive influence on Attitude Toward Game.

H4: Procedural Generation has a positive influence on Intention to Play.

H5: Permadeath has a positive influence on Attitude Toward Game.

H6: Permadeath has a positive influence on Intention to Play.

H7: Persistence Systems have a positive influence on Attitude Toward Game.

H8: Persistence Systems have a positive influence on Intention to Play.

1.7 Scope of the study

1.7.1 Scope of variable

This study focuses specifically on key Roguelike game mechanics-namely, procedural generation, permadeath, and the persistence meta-progression system-as independent variables to examine their influence on pre-play purchase intentions. Procedural generation refers to the algorithmic creation of unique and varied game content for each playthrough, providing players with fresh and unpredictable experiences. Permadeath introduces permanent consequences by resetting player progress upon failure, thereby increasing the stakes and challenge within gameplay. The persistence meta-progression system allows players to carry over certain achievements or unlock across multiple sessions, fostering a sense of long-term progression and investment. By concentrating on these core mechanics, the study aims to generate insights that are both theoretically significant and practically valuable for game developers and marketers seeking to understand consumer behavior prior to gameplay.

The scope deliberately excludes other game design elements or mechanics outside the Roguelike genre to maintain a focused and manageable research framework. This targeted approach enables a deeper investigation into how these specific mechanics interact with player attitudes and intentions, providing clear boundaries that enhance the study's validity and relevance.

The dependent variable in this research is pre-play purchase intention, which captures consumers' decision-making processes before engaging with the game itself. To elucidate the pathways linking Roguelike mechanics to purchase intention, the study incorporates attitude toward playing and intention to play as mediating variables. These mediators reflect the psychological and behavioral precursors that potentially influence purchasing decisions in the context of game consumption.

1.7.2 Scope of population

The target population for this study consists of members of the Roguelite Reddit community, which has approximately 63,000 members (21 March, 2025) ("r/roguelites," 2025). This community was specifically selected for its focus on the Roguelite subgenre, which is defined by the inclusion of persistence meta-progression systems. The study will not include members of more traditional Roguelike communities, as these tend to prioritize games that strictly adhere to permadeath and procedural generation without persistence progression. This

distinction is critical because the research aims to understand how meta-progression influences pre-play purchasing decisions.

1.7.3 Scope of time

The research for this study will be conducted over a structured timeline. The initial phase, commencing in December 2024, will involve a thorough literature review to establish the theoretical foundation and define the scope of investigation. Following the literature review, January to February 2025 will be dedicated to designing and refining the survey instrument to accurately capture the relevant data. Data collection will then take place over a period of one to two weeks in late March and early April 2025. The subsequent data analysis, interpretation of findings, and report writing are scheduled for completion in late May 2025, ensuring the project is concluded within the specified timeframe.

1.8 Research Benefits

The findings of this research offer a range of benefits for various stakeholders within the gaming ecosystem.

1.8.1 Game Developers

This study provides practical guidance for game developers, particularly those working in the Roguelike and Roguelite genres. By identifying the specific game mechanics that most strongly influence pre-play purchase intentions, developers can make more informed decisions about their design priorities. For example, if procedural generation emerges as a critical factor, developers might allocate resources to refine their algorithms, ensuring unique and engaging gameplay experiences. Conversely, understanding how permadeath impacts purchase decisions can inform choices about difficulty scaling, meta-progression systems, and player onboarding to balance challenge with accessibility. The insights gained from this research can help developers create more commercially successful games by aligning design choices with player preferences.

1.8.2 Marketers

The research findings offer actionable insights for marketers seeking to promote Roguelike and Roguelite games. By understanding which mechanics resonate most strongly with potential buyers, marketers can tailor their messaging to highlight these features in trailers,

promotional materials, and social media campaigns. For example, if permadeath is found to attract players who value challenge and replayability, marketing strategies can emphasize the high-stakes nature of the gameplay and the sense of accomplishment that comes from overcoming difficult obstacles. Furthermore, marketers can leverage social proof, such as influencer reviews or community feedback, to build confidence among potential buyers who may be hesitant to purchase a game without prior experience. The study also informs effective targeting strategies, allowing marketers to reach specific segments of the gaming audience who are most likely to be interested in Roguelike and Roguelite mechanics.

1.8.3 Game Players / Customers

Ultimately, this research is expected to indirectly benefit game players and customers by influencing the design and marketing of future Roguelike and Roguelite titles. By understanding player preferences and motivations, developers can create more engaging and enjoyable games that better align with player expectations. For example, if procedural generation is prioritized based on the study's findings, players may experience more varied and replayable gameplay, leading to enhanced satisfaction. Furthermore, improved marketing strategies can help players discover games that match their interests, reducing the risk of purchasing titles that do not meet their expectations. By fostering a better understanding between developers and players, this research aims to contribute to a richer and more rewarding gaming experience for all.

1.8.4 Academic Contributions

This study contributes to academic discourse by addressing critical gaps in the existing literature on player behavior and game design. By focusing on the specific mechanisms that drive purchase intentions in Roguelikes, it offers a nuanced perspective that goes beyond generic models of consumer behavior. The study also extends existing research on player retention by examining the impact of mechanics like procedural generation on long-term engagement. Furthermore, the methodology employed in this research can serve as a reference point for future studies in the field, providing a framework for standardizing definitions, approaches, and measures related to game mechanics and player behavior. By advancing both theoretical understanding and methodological rigor, this study aims to foster more informed and evidence-based research in the field of game studies.

1.9 Definition of Terms

1.9.1 Gameplay Concepts

- **Attitude toward playing** refers to Players' positive or negative feelings about engaging with a game, influenced by factors such as enjoyment, difficulty, and perceived value.
- **Permadeath** refers to a game mechanic where the player's progress is permanently lost upon death, requiring them to start over from the beginning.
- **Intention to Play** refers to the willingness or desire of a player to engage with a game, often influenced by their attitude toward it and external factors like recommendations or marketing.
- **Procedural Generation** refers to the use of algorithms to create game content dynamically, such as levels, maps, or items, ensuring unique experiences in every playthrough.
- **Purchase intention** refers to the likelihood or willingness of a player to buy a game based on perceived enjoyment, value, or other influencing factors.

1.9.2 Genres and Game Types

- **Roguelike** refers to a subgenre of role-playing games characterized by procedural generation, permadeath, and turn-based gameplay inspired by the original *Rogue* (1980).
- **Roguelite** refers to a variation of roguelikes that retains elements like procedural generation and permadeath but includes persistence progression systems to make the game more accessible.
- **Role-playing games (RPG)** refers to a genre where players assume the roles of characters in a fictional setting, often involving character customization, narrative progression, and stat-based mechanics.
- **Sandbox games** refer to games that provide players with an open-ended environment to explore and interact with, often without predefined objectives.

1.9.3 Game Systems

- **AI-driven challenges** refer to Game challenges controlled by artificial intelligence that adapt dynamically to player behavior.
- **Persistence system** refers to Mechanics that allow players to retain certain progress (e.g., upgrades or unlocks) between playthroughs, even after failure.

- **Meta-progression** refers to A system where players unlock permanent upgrades or abilities across multiple runs, softening the impact of permadeath.
- **Random number generation (RNG)** refers to A system that introduces randomness into gameplay, such as loot drops or enemy behavior.
- **Skill trees:** Progression systems where players unlock abilities in branching paths based on their preferences.

1.9.4 Gaming Platforms and Tools

- **Steam** refers to A digital distribution platform for PC games that allows users to purchase, download, and manage games while offering community features like reviews and achievements.
- **Demo** refers to A trial version of a game that allows players to experience limited content before deciding whether to purchase the full version.
- **Beta testing** refers to A pre-release phase where developers allow players to test an unfinished version of a game to identify bugs and gather feedback.

1.9.5 Player Engagement and Marketing

- **Pre-play purchasing intention:** The decision to buy a game based on anticipated enjoyment before actually playing it.
- **Replayability** refers to the extent to which a game remains enjoyable after multiple playthroughs due to varied content or mechanics.
- **Engagement** refers to the level of interest and involvement players have with a game over time.
- **Perceived value** refers to Players' assessment of whether the cost of a game is justified by its quality and content.

1.9.6 Gaming Industry Terms

- **AAA** refers to High-budget games developed by large studios with significant marketing efforts (e.g., *Call of Duty*, *Assassin's Creed*).
- **Indie** refers to Games developed by small teams or individuals without major publisher backing, often focusing on innovation and creativity.
- **DLCs** refers to additional digital content that players can download and add to a video game after its initial release. Game developers use DLC to expand and enhance the gaming experience by providing new storylines, challenges, characters, weapons, or cosmetic items.

1.9.7 Modern Gaming Trends

- **Esports** refers to Competitive gaming at a professional level where players compete in tournaments for prizes.
- **Live streaming** refers to Broadcasting gameplay in real-time on platforms like Twitch or YouTube for audiences to watch and interact with.
- **Cloud gaming** refers to Playing video games via streaming services without needing powerful local hardware; processing is handled on remote servers.

1.9.8 Monetization Models

- **Free-to-play (F2P)** refers to Games that are free to download but monetize through optional purchases like cosmetics or upgrades.
- **In-app purchases (IAPs)** refer to Transactions within a game for additional content such as items, currency, or levels.
- **Freemium** refers to A model where basic gameplay is free but additional features or content require payment.
- **Microtransaction** refers to small purchases within a game for items like skins, weapons, or boosts.

1.9.9 Immersion and Design Elements

- **VR (Virtual Reality)** refers to Immersive gaming experiences using headsets that simulate 3D environments.
- **Immersive** refers to Games designed to deeply engage players through realistic environments, compelling narratives, or innovative mechanics.

1.9.10 Psychological Concepts

- **Dopamine** refers to A neurotransmitter associated with pleasure and reward; in gaming, it is released when players achieve goals or receive rewards.
- **Hedonic Forecasting** refers to Players' predictions about how much enjoyment they will derive from playing a game based on trailers, reviews, or reputation.
- **Motivation** refers to the reasons why players start playing a game, such as curiosity, social influence, or perceived enjoyment.

1.9.11 Additional Terms

- **E-commerce** refers to Online platforms for buying games digitally (e.g., Steam Store).

- **M-commerce (Mobile commerce)** refers to Purchasing games or items directly through mobile platforms.
- **Electronic sports (Esports)** refer to Another term for competitive gaming at professional levels.
- **Virtual community** refers to Online spaces where gamers interact socially around shared interests in games.



CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter delves into the existing body of knowledge relevant to understanding pre-play purchase intentions (PPPI) within the context of Roguelike and Roguelite video games. It synthesizes key concepts from diverse fields such as consumer behavior, game studies, and psychology to build a theoretical foundation for the study. The literature review begins by examining the concept of purchase intention in traditional marketing contexts, then narrows its focus to the gaming industry, highlighting the nuances of digital game purchases and the emerging significance of PPPI. It explores how factors like social proof, monetary incentives, and information presentation influence players' decisions to buy games before experiencing them firsthand.

The chapter then investigates the interconnectedness of attitude towards playing and intention to play, drawing upon studies based on theoretical frameworks such as the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). By examining existing research on how game features shape player attitudes and motivations, it seeks to establish a comprehensive understanding of the psychological processes underlying gameplay engagement. This section emphasizes the importance of addressing genre-specific factors, such as the unique appeal of challenging mechanics found in Roguelike/Roguelite titles.

Finally, the literature review provides an in-depth examination of specific game mechanics and features prevalent in Roguelike/Roguelite games, including procedural generation, permadeath, and persistence systems. By exploring how these mechanics contribute to gameplay variation, challenge, and long-term engagement, it sets the stage for subsequent empirical analysis. The goal is to contextualize the appeal of these titles and outline the conceptual framework used to investigate their effect on pre-play purchase intentions. Through the synthesis of relevant literature, this chapter lays the groundwork for the study's methodology and analysis, providing a clear understanding of the research questions and hypotheses explored in the following sections.

2.2 Literature Review Method

This literature review employed a systematic approach to synthesize existing research relevant to pre-play purchase intention (PPPI) within the context of Roguelike and Roguelite video games. The review encompassed literature from diverse fields, including consumer behavior, game studies, marketing, and psychology, to establish a comprehensive theoretical foundation for this study.

2.2.1 Search Strategy and Selection Criteria

The search strategy involved utilizing academic databases such as Scopus, Web of Science, and IEEE Xplore, alongside search engines like Google Scholar, to identify relevant articles, conference papers, and book chapters. Keywords and search terms included "purchase intention," "video games," "indie games," "Roguelike," "Roguelite," "game mechanics," "procedural generation," "permadeath," "persistence systems," "pre-order," "consumer behavior," "technology acceptance model," "theory of planned behavior," "game design," and related concepts.

The selection of studies for inclusion followed a two-stage process. First, initial screening of titles and abstracts was conducted to assess relevance to the research topic. Studies were included if they addressed at least one of the following criteria: (a) investigated factors influencing purchase intention in video games; (b) explored consumer behavior related to indie game purchases; (c) examined the impact of specific game mechanics (e.g., procedural generation) on player engagement or decision-making; or (d) provided insights into the psychological or economic aspects of gaming. Second, full-text articles were retrieved and evaluated based on methodological rigor, theoretical contribution, and relevance to the research questions. Priority was given to empirical studies, meta-analyses, and comprehensive reviews. Theoretical papers and conceptual frameworks were also included to provide a broader understanding of the underlying concepts.

2.2.2 Data Extraction and Synthesis

Relevant data from selected studies were extracted and synthesized using a structured approach. Key elements extracted included: (a) research objectives and hypotheses; (b) study design and methodology; (c) sample characteristics and data collection methods; (d) key findings and conclusions; and (e) theoretical frameworks used. The synthesis process involved identifying common themes, contrasting different perspectives, and highlighting research gaps.

Particular attention was given to studies that addressed the unique aspects of the Roguelike/Roguelite genre and its impact on purchase intentions.

2.2.3 Challenges

This literature review acknowledges several limitations that shape the scope and interpretation of findings. First, a significant portion of existing purchase intention research within the video game domain tends to concentrate on freemium and free-to-play models, primarily exploring factors influencing in-game content purchases (e.g., microtransactions, DLCs) rather than the initial purchase of the base game. This bias leaves a gap in understanding the motivations and decision-making processes that drive players to acquire premium titles, particularly in the indie space.

Second, a notable challenge arises from the lack of genre-specific analysis in much of the current literature. Many studies adopt a broad, population-level approach, which can obscure the nuanced dynamics that operate within individual genres. Given that video games offer vastly different player experiences and cater to diverse preferences, insights derived from general consumer behavior research may not accurately reflect the specific factors that influence purchase decisions within niche markets like Roguelikes and Roguelites.

Third, the existing body of research exhibits a tendency to overemphasize mobile gaming and esports, reflecting the industry's prevailing trends and revenue streams. While these areas are undeniably important, the relative neglect of other segments, such as PC and console gaming, can limit the generalizability of findings to the indie and premium game markets.

Despite these limitations, this literature review provides a valuable foundation for understanding the complex interplay of factors that influence pre-play purchase intention in Roguelike and Roguelite games. By highlighting these gaps in the existing research, this study aims to contribute to a more nuanced and genre-specific understanding of consumer behavior within the video game industry. The identified limitations will also inform the design of subsequent empirical research, ensuring that future studies address these critical gaps and provide more targeted insights for developers and marketers operating in this dynamic and evolving market.

2.3 Pre-Play Purchase Intention

2.3.1 Introduction

Consumer behavior is defined as behavior that consumers find, purchase, use and evaluation of various products and services that meet their needs (Schiffman & Kanuk, 1991). Such behavior is caused by something that evokes a sense of consumer demand and through a black box into a deep sense of buyer and emotions is influenced by the nature of the person buying and consumer buying-decision process (Kotler, 2002). The purchase intention is a necessary condition to direct the real purchase behavior and is influenced by various incentives. In this study, unlike other research in the field of video games, we will discuss the purchase intentions on based video games and call it Pre-Play Purchase Intention (PPPI).

2.3.2 Purchase Intention

Purchase intention (PI) refers to a consumer's preference to buy a product or service based on cognitive decision making on his/her need, or attitude towards a product and perception of products can also give influences (Abdolrazagh & Sukati, 2012). (Wang & Hazen, 2015). According to these studies, in conclusion, purchase intention means a decision of customers to buy or not buy a product after he/she evaluates and finds out that the products are worth their money or are able to satisfy their desire according to their ultimate value or not.

2.3.3 Related studies

Park & Lee (2011) claimed that their study is one of the first of its kind in its focus on free-to-play online games. The study extended the theory of consumption values to the online game environment. They empirically examined how online game users purchase game items and what kinds of items they purchase. The preliminary analysis indicates that online game users experience character competency, enjoyment, visual authority, and monetary value from using and purchasing online game items. Using PLS, it was determined that as game users perceive greater values of game items, they are more inclined to purchase such items. Additionally, when game users identify with the game characters, they place increased value on the game items. However, gamers satisfied with the game do not necessarily have online game item purchase intentions.

CHOU & KIMSUWAN (2013) discusses the influential factors of prepayment card purchase intention from three aspects: perceived value, price and promotion programs. The results show that the gamers purchase prepayment cards mainly for the enjoyment value. It

implies that online game companies should create more joyfulness brought by game items to trigger purchase intention of prepayment card. The second high impact factor is the promotion program that provides special discounts or events for affecting the decisions on online game prepayment card purchase. The last significant influential factor is the monetary value which indicates the gamers' purchase intention of online game prepayment card depends on whether it is worth in exchanging the game items or can be regarded as a kind of virtual currency in cyberspace. Nevertheless, statistical tests revealed that the character competency value and the visual authority value did not significantly influence the purchase intention. Interestingly, the effect of price on purchase intention is not significant either. It seems to imply that online gamers are concerned more about the perceived value than price when they are making purchase decisions.

Stefany (2014) also did research about virtual goods purchasing intention in online games using war games, perfect world where in game player can buy virtual items. The measurement variables consist of effort expectancy, performance expectancy, perceived value, enjoyment story, enjoyment length, enjoyment graphic, enjoyment control, customization, purchase intention and actual purchase behavior. The result of research shows that motivation factors that have high effect to purchase intention is perceived value, enjoyment story, enjoyment length, enjoyment control and customization. While purchase intention affects actual purchase behavior significantly.

Souza & Freitas (2017) did a study on the intentions to play and to pay. The study mentioned that in the beginning, games were made to be played only on consoles or PCs, and it was necessary to buy the games in order to play them. This period is known as pay-to-play. Companies observed, however, that many consumers would not buy a game because they feared they might regret it. As a result, companies launched the play-to-pay method, where the consumer tests the game before buying it. In recent years, a new strategy emerged, called freemium (a mix of the words free and premium). It is possible to play for free, but if the user decides to pay, they get privileges not available on the free version. The study results show that the intention to play was confirmed to have a strong influence on the intention to pay.

Tumtong (2020) investigate factors that influence purchase intention within online mobile games in Thailand. The research framework proposes that six independent variables: nostalgia, belongingness, perceived enjoyment, self-esteem need, self-actualization need, and uniqueness tend to have significant relationship with the dependent variable: purchase intention. After processing data with statistical analysis techniques through the SPSS program, the result provides the researcher with better understanding and leads to answering the research question. From the initial six independent variables, there are only two variables that

significantly influence purchase intention, which are self-esteem need and perceived enjoyment. As indicated by the result, gamers who have higher need for self-esteem and perceived enjoyment have greater motivation toward purchase intention toward virtual items within online mobile games in Thailand.

Yu & Huang (2022) aims to explore the intention of users to play games on mobile commerce platforms, as well as the influence of gamification mechanisms on users' purchase intentions on these platforms. The study explains the phenomenon of m-commerce platform gamification from the perspective of perceived value. The results show that utilitarian value and social value had a significant positive impact on platform purchase intention. However, hedonic value and less time/effort spent on the game had no significant effect on platform purchase intention of users who access m-commerce platforms. The study also uses Game use intention plays a mediating role between perceived value and platform purchase intention which we will discuss in section of Attitude towards Playing and Intention to play.

Abbasi et al. (2023) presents a conceptual model where consumer electronic sports (eSports) engagement (CeSE) acts as a predictor for gamers' online engagement in eSports-related products/firm either through direct contribution (purchase intention) or indirect contribution (co-production, community engagement, word-of-mouth, and recruitment). To develop conceptual models, the study uses the theoretical notion of CeSE and one of the important tenets of customer engagement theory (i.e. relationship marketing; (Pansari & Kumar, 2017)). It posits that once consumers are engaged with a focal brand/product, they will extend their relationships with a brand/firm. Given that they believe that once CeSE is established, gamers will develop their engagement in online communities with eSports related products/firms either by making direct (e.g. purchases) and indirect contribution involving community engagement, recruitment, word-of-mouth and co-production. The study defines purchase intention as the possibility of a consumer intending to make a purchase of one or more product(s) (Kaur et al., 2020). Higher consumer willingness to buy a product led to higher purchase intention, which is influenced by consumer interest in the product (Jin et al., 2017; Khan et al., 2022). A positive consumer attitude toward a product or brand positively influences their purchase intention and willingness to buy (Ghosh et al., 2021).

Muhammad & Hidayanto (2023) investigate the factors shaping purchasing intentions focusing on the constructs of Attitude, Subjective Norms, and Perceived Behavioral Control derived from the Theory of Planned Behavior (TPB). The study stated that purchase intention in purchasing in-game items within virtual community can be analyzed on internal and external factors. In mobile games, the intention to purchase in-game items is driven by several factors such as progress in playing, competition, frequency of purchases and amount of spending (Seo

et al., 2019). Essential elements on internal factor of the purchase intentions of virtual in-games are enjoyment, skills, challenge, telepresence, and flow (Ghazali et al., 2023). As a prior study found that the enjoyment of the game tended to decrease the willingness to acquire virtual goods, and a positive attitude toward virtual goods and beliefs about peers' attitudes had a strong positive influence on the inclination to purchase such items (Hamari, 2015), this research extends the previous study by exploring influential external factors within virtual communities that drive purchase intentions for in-game items. The findings suggest that engagement within virtual communities has a positive impact on the decision to purchase in-game items within virtual community. Furthermore, the ease of communication and negotiation with fellow users within the same virtual community emerges as a driving force behind purchase intentions.

Laurence et al. (2023) develop a theoretical model of video game engagement as well as its antecedents and consequences. The study synthesizes independent variables derived from the theories of flow, hedonic value, and self-determination theory (SDT). The conceptual model was tested on online game players in Indonesia. The study's novel contribution lies in enhancing our understanding of the interrelated factors that contribute to gamer experience and how such experience impacts other factors. Although much research has been done on the correlations between gamer experience and various factors, this study takes a unique approach by integrating all the variables into a single model and identifying the strongest contributing factor. Using customer engagement theory, the study states that a game is an object that gamers engage with by playing time after time, and there is favoritism for a brand (Hollebeek et al., 2014). The gamer may be at a different level than the last time he started playing it, both in terms of level and conditions. Video game engagement (VGen) is important because people can use the application, even if there is no specific purpose, as long as they have engagement with the application (O'Brien & Toms, 2008). The results of this study are in line with previous research which states that video game engagement has a positive effect on the intention to continue playing games (Kang et al., 2020), the intention to purchase game items (Jin, 2011), and the intention to recruit new players (Abbasi et al., 2021).

Mkedder et al. (2024) investigated the direct and indirect effects of functional, emotional, and social values through player satisfaction on purchase intention toward virtual goods among online players. The study finds that functional, emotional, and social values play pivotal roles in shaping player satisfaction and the intention to purchase virtual goods. First, the study observed that both functional and emotional values positively affect player satisfaction and purchase intention for virtual goods. Pre-Play Purchase Intention. Emotional value signifies player satisfaction derived from using and purchasing virtual goods. It includes the feeling of happiness, entertainment, and enjoyment stemming from virtual goods,

motivating players to continue purchasing these items, and engaging in online games. This study also noted that social value significantly affects purchase intention for virtual goods. Second, this study suggests that player satisfaction can mediate the interplay among functional, emotional, and social values and the intention to purchase virtual goods. Fulfillment of functional and emotional needs affects players' desire for virtual goods. When players have a favorable attitude and ample virtual goods experience, they are more satisfied and inclined to purchase. In conclusion, the interplay of three functional, emotional, and social values in shaping players' satisfaction and intention to purchase virtual goods in emerging nations have yet to be explored. Drawing on consumption values theory, the study demonstrates how these values affect the purchase intention for virtual goods directly and indirectly through player satisfaction. Their findings suggest that player satisfaction could mediate the relationship between these values and the intention to buy virtual goods, which enhances the existing online gaming literature significantly.

While there is substantial literature on general purchase intention (PI) in video games, particularly regarding in-game items and microtransactions, often linked to factors like perceived value and enjoyment, "pre-play purchase intention" (PPPI) are less commonly defined. Most discussions frame it within the context of pre-order behavior, focusing on early purchasing decisions influenced by incentives and market dynamics.

2.3.4 Pre-Play Purchasing Intention

PPPI refers to a player's decision to purchase a game based on **anticipated experiences** rather than post-play satisfaction. Unlike traditional purchase intention (PI), which often relies on past experiences or BETA testing, PPPI thrives on **Hedonic Forecasting, Social Proof, and Monetary Incentives**. Hedonic Forecasting is a prediction of how someone will feel in the future (Wilson & Gilbert, 2005). In video game context, this can be done by imagining enjoyment from trailers, influencer content, or brand reputation. Social Proof comes from Peer hype and community trends (e.g., Cyberpunk 2077's pre-orders despite mixed reviews). Monetary Incentives such as Limited-time discounts or prepayment card promotions (e.g., Thailand's 35% PPPI boost from promo codes) (CHOU & KIMSUWAN, 2013). PPPI hinges on asymmetric information which players lack firsthand experience, amplifying reliance on trust, brand loyalty, and speculative value.

2.3.4.1 The Role of Social Proof and Community Hype

Social proof is another significant factor in pre-play purchase intentions. When a game generates buzz within gaming communities, it can create a snowball effect,

encouraging more players to pre-purchase. This phenomenon was evident with *Cyberpunk 2077*, where despite mixed reviews, the game saw significant pre-orders due to its high-profile marketing and community hype (Bailey, Dec 11, 2020). Developers can foster this by engaging with influencers and streamers, who can showcase the game's unique features and build anticipation among their followers. For Roguelites, this might involve highlighting the game's replayability and the potential for discovering new strategies or items with each playthrough.

2.3.4.2 Monetary Incentives and Limited-Time Offers

Monetary incentives, such as limited-time discounts or exclusive pre-order bonuses, are effective in boosting pre-play purchase intentions. These offers create a sense of urgency and perceived value, encouraging players to buy the game before experiencing it. For example, promotional codes offering discounts can significantly increase sales, as seen in Thailand where such promotions program that provides special discounts or events affect the decisions on online game prepayment card purchase (CHOU & KIMSUWAN, 2013). Developers can also bundle their game with other titles or offer exclusive content to early buyers, further enhancing the appeal of pre-purchasing.

2.3.4.3 Balancing Information and Intrigue

When marketing a Roguelite, it's crucial to strike a balance between revealing enough information to generate interest and maintaining an air of mystery that keeps players intrigued (Zetian et al., 2024). Overexposing game mechanics can lead to a decrease in perceived novelty, while underexposing them might fail to generate sufficient buzz. Developers should focus on showcasing the game's core features and unique selling points without revealing too much about the gameplay experience. This approach ensures that players remain curious and motivated to purchase the game based on their anticipation of what it might offer, rather than relying on post-play satisfaction. By leveraging these strategies, developers can effectively enhance pre-play purchase intentions and attract a strong player base before the game's release.

2.3.4.4 Distinguishing Between Motivation and Player Engagement

Schoenau-Fog (2011) states that understanding the distinction between motivation and player engagement is crucial in the context of video games. Motivation refers to the initial reasons that prompt individuals to start playing a game. These

reasons can be diverse, such as alleviating boredom, curiosity about a new game mechanic, or social influence. Motivation acts as the catalyst that draws players into a game, setting the stage for their initial interaction.

On the other hand, player engagement is concerned with the aspects that encourage players to continue playing over time. Engagement is characterized by a strong desire to persist in gameplay, often driven by emotions such as enjoyment, satisfaction, and the feeling of being immersed or in a state of flow. Unlike motivation, which focuses on the onset of play, engagement is about sustaining interest and fostering a sense of dedication to return to the game repeatedly. This ongoing engagement is fueled by perseverance, determination, and tenacity, which emerge as players become more invested in the game.

In essence, motivation initiates the player's journey, while engagement sustains it. A player might initially be motivated to play due to external factors, but it is the intrinsic rewards and experiences during gameplay that lead to engagement. This distinction is vital for game developers aiming to create games that not only attract new players but also retain them over time. By understanding what motivates players to start and what keeps them engaged, developers can design more effective marketing strategies and game mechanics that cater to both initial interest and long-term commitment.

2.3.4.5 Adapting Purchase Intention Studies for Pre-Play Purchase Intentions

Purchase intention studies in free-to-play and freemium games often focus on in-game purchases and long-term engagement. However, pre-play purchase intentions can adapt these insights by leveraging teasers to promote game mechanics effectively. By showcasing core features like procedural generation, meta-progression, and emergent gameplay, developers can create a compelling narrative that motivates players to buy before playing.

2.3.4.6 Leveraging Teasers to Promote Game Mechanics

Teasers can be designed to highlight the unique selling points of a game, such as its procedural generation or meta-progression systems. For example, *Enter the Gungeon*'s trailers emphasize the game's chaotic gunplay and procedurally generated levels, generating excitement among fans of action-packed gameplay. This approach leverages hedonic forecasting, where players imagine the enjoyment, they will derive

from the game based on these teasers, thereby influencing their decision to purchase before playing.

2.3.5 Conclusion and Hypothesis

In conclusion, pre-play purchase intentions are driven by factors distinct from those that sustain player engagement. By understanding these differences and leveraging teasers to showcase game mechanics, developers can effectively adapt strategies from free-to-play and freemium games to enhance pre-play purchase intentions. The assumption is that by highlighting the unique features and potential for enjoyment of a game, developers can create strong motivation for players to purchase before experiencing the game. With this, motivation or intention to play may influence the intention to purchase

H1: Intention to Play has a positive influence toward Purchase Intention.

2.4 Attitude towards Game and Intention to play

2.4.1 Introduction

In the context of behavioral theories, attitude and intention are central concepts explored in both the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). While these models share some similarities in their definitions, they also exhibit distinct differences in their applications and focuses.

The Technology Acceptance Model (TAM) is one of the most influential extensions of theory of reasoned action (TRA) (Ajzen, 2000) primarily focuses on how users form attitudes toward using technology based on its perceived usefulness and ease of use. In TAM, attitude refers to the user's positive or negative feelings about using a particular technology, which in turn influences their intention to use it. This intention is a direct precursor to actual behavior, such as adopting or continuing to use technology.

The Theory of Planned Behavior (TPB) extends beyond TRA by incorporating additional factors that influence behavioral intentions. In TPB, attitude is defined as an individual's personal evaluation of a behavior, encompassing both positive and negative aspects. Intention is the immediate precursor to behavior, shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1985). Unlike TAM, TPB emphasizes the role of social norms and perceived control in forming intentions.

Both models recognize that attitudes influence intentions, but they differ in scope. TAM is more technology-centric, focusing on usability and utility, whereas TPB is broader, applying to various behaviors and considering social and control factors. While TAM is often used in technology adoption contexts, TPB is applied across multiple domains, including health, finance, and social behaviors.

2.4.2 Attitude Towards Playing and Intention to Play in Video Games

In the context of video games, **attitude towards playing** refers to players' positive or negative feelings about the game. Generally, attitude is influenced by perceived usefulness and perceived ease of-use (Hsu & Lu, 2004). These attitudes are shaped by factors such as game mechanics, narrative, graphics, and overall enjoyment. A positive attitude can lead to a stronger intention to play, as players are more likely to engage with games they enjoy.

The intention to play is the player's willingness to engage in a game, influenced by their attitude towards it. This intention can be affected by various factors, including perceived difficulty, social norms (e.g., playing with friends), and perceived control over gameplay outcomes. In video games, intention to play is often linked to pre-play purchase intentions, where players decide to buy a game based on anticipated enjoyment or social pressure.

2.4.3 Related Studies

Hsu & Lu (2004) applies the technology acceptance model (TAM) that incorporates social influences and flow experience as belief related constructs to predict users' acceptance of online games. The purpose of this study was to extend the TAM to include the influences of online games in user behavior. Specifically, this work proposed that additional variables, such as social influences and flow experience, enhanced understanding of online game user behavior. The importance of these two variables can be explained with reference to existing literature on influences in social psychology, and flow experience in flow theory (Csikszentmihalyi, 1975; Fishbein & Ajzen, 1975; Kauffman et al., 2000).

While most of past studies found consistently perceived usefulness an important predictor in TAM model, the study found that this was not always true. Online games are entertainment technology, different from problem-solving technology. While using entertainment technology, people usually want to "kill time". As a result, the significant effect of perceived usefulness will decrease. The influence of flow experience and social norms become important. TAM omits social factors in explaining IT usage. However, social norms have a direct impact on the adoption of online games. Users may feel obligated to participate because they want to belong to a community. Flow experience may play an important role.

Users intend to play entertainment technology continuously where they are completely and totally immersed. Increasing usability through dialogue and social interaction, access, and navigation, is the key to successful management of online game communities.

This study revealed that the acceptance of online games can be predicted by extended TAM. Social norms, attitude, and flow experience significantly and directly affected intentions to play online games. Notably, contradicting the findings of previous TAM studies, the results of this study indicate that perceived usefulness does not motivate users to play online games, but it directly affects attitude. Perceived usefulness was proposed as a determinant of acceptance.

Lee (2009) extends the theory of planned behavior (TPB) with flow experience, perceived enjoyment, and interaction to propose a theoretical model to explain and predict people's behavioral intention to play online games. Perceived enjoyment has a significant influence on both attitude and intention. This finding concurs with the argument of Hsu & Lu (2007) that perceived enjoyment has a significant effect on attitude and continued intention to participate in an online community. This result underlies the fact that if the players do not enjoy an online game, they are unlikely to play it. The study also found that the players' attitudes strongly determine their intention to play online games. Therefore, players with a more favorable attitude toward playing such games are more likely to accept and participate in them. Previous researchers have suggested that the inclusion of attitude is not meaningful (Heijden, 2003).

In another study, Agag et al. (2019) integrating three well-recognized adoption theories: the innovation diffusion theory (IDT), the technology acceptance model (TAM), and the theory of planned behavior (TPB), together with flow experience, human-computer interaction, and social interaction in a theoretical model to explore the most crucial factors that affect Online Gamers' Intention to play online games. The results indicate that perceived ease of use and perceived enjoyment are two relevant antecedents of attitude and intention to play an online game. Concerning attitudes, subjective norms, and perceived behavioral control, previous studies in the TPB confirmed that they work as key predictors of continuous intentions. As expected, the three factors have a positive significant influence on gamers' intentions to play online games, which is consistent with those of prior research on e-commerce (Alzahrani et al., 2017; Chang et al., 2014; Lee & Tsai, 2010; Lee, 2009)

In following study, Rafdinal & Qisthi (2020) analyzed the factors of attitude towards playing online games that are influenced by factors that exist in online games (game features and trust in developers) and technology acceptance factors (perceived usefulness and perceived ease of use) on the intention to play online games, also analyzed subjective norms in influencing

intention to play online games. Based on the results of the study, it showed that perceived usefulness significantly affected the attitude toward playing online games. The better-perceived usefulness will increase attitude towards playing online games. Gamers gain perceived usefulness in playing games such as the usefulness in playing games, the benefits gained, and the happy feelings obtained in playing games.

Gaffar et al.(2022) investigates gamers' behavior in adopting mobile games by integrating game features and the theory of planned behavior (TPB). The results show that the integration between Game features and TPB gives a deeper explanation of gamers' behavior in adopting mobile games. The results show that perceived behavior control has no significant effect on the intention to play mobile games. This means that beliefs about the presence or absence of factors that facilitate or hinder playing mobile games are not factors that determine a person's intention to play games. However, what supports it are game features, attitude towards games, and social support.

As Yu and Huang (2022) aims to explore the intention of users to play games on mobile commerce platforms with four dimensions of perceived value: utilitarian value, hedonic value, social value, and time/energy. The results show that utilitarian value, hedonic value, and social value positively influence users to play games on m-commerce platforms. Users' perception that they spend less time/energy playing games on m-commerce platforms also has a positive impact on their willingness to play games.

2.4.4 Conclusion and Hypothesis

In conclusion, previous studies either extended TAM, TPB, or both ground theory and confirmed that in the study of behavioral theories in the context of video games, Attitude Toward Game has a positive influence toward intention to play hence:

H2: Attitude Toward Game has a positive influence toward intention to play

2.5 Game Mechanics and Features

Game mechanics and features are essential components of any game, influencing player engagement, enjoyment, and overall experience.

Game mechanics refer to the rules, systems, and elements that govern how a game function (Hunicke et al., 2004). They define how players interact with the game environment, including actions like movement, combat, or resource management. Mechanics can range from basic elements like turn-taking and movement to complex systems such as skill trees and AI-

driven challenges. In mobile games, mechanics like tutorials, feedback, and progression systems are critical for engaging players and encouraging continued play. Mechanics, as part of the Mechanics Dynamics-Aesthetics (MDA) framework, refer to the specified rules and systems that govern the gameplay. These mechanics work as the building blocks of the game and determine how the player interacts with the game world, what actions the player can take, and what objectives the player must achieve to progress the game, including player controls, inventory management, quest mechanics, and resource management (Hunicke et al., 2004).

Game features are broader elements that enhance the gameplay experience. These can include multimedia elements (e.g., graphics and sound), fun elements (e.g., playful mechanics), and motivational elements (e.g., rewards and challenges) (Abdul Jabbar & Felicia, 2015). Features can be categorized into several groups:

- **Social Features:** Leaderboards, friend systems, and social media integration that foster community interaction (King et al., 2010).
- **Manipulation and Control Features:** Mechanics that allow players to manipulate game elements, such as character customization or resource management (King et al., 2010).
- **Narrative and Identity Features:** Storylines, character development, and role-playing aspects that enhance immersion (King et al., 2010).
- **Reward and Punishment Features:** Systems that provide incentives for achievements or penalize failures, influencing player motivation (King et al., 2010).
- **Presentation Features:** Graphics, sound design, and user interface elements that contribute to the overall aesthetic and usability of the game (King et al., 2010).

2.5.1 Introduction

A game that possesses high-quality features can provide three benefits to gamers, namely services (solving gamer problems quickly, knowing gamers' needs, and giving friendly answers to gamers' questions), products (game character design, vivid game character, and game story), and gratification (customizing character and playing various roles in the games) (Kim et al., 2015). If a game has good quality features, it will affect a person's attitude towards the game which will lead to the intention to play. Previous research discusses various features in a game, resulting that game features being influential toward attitude and intention to play a game (Hamari & Keronen, 2017; Rafdinal & Qisthi, 2020; Tseng et al., 2015). These previous studies show the effect of game features on attitude and intention.

The fundamental elements that define how a game works and how players interact are known as core mechanics (Hunicke et al., 2004). All games have core mechanics, including the

main activity that players must repeat to complete the game (Hunicke et al., 2004). It is the experiential building block of player interactivity, representing the players' essential moment-to-moment activity (Hall et al., 2014). It generates behavioral patterns that manifest as gameplay. The core mechanic is the foundation of a game, engaging the player and distinguishing the game as its own media group of interactive entertainment (Hall et al., 2014).

The overarching systems and rules governing how players interact with a game beyond the core mechanics are called meta mechanics, also known as meta-game mechanics. Meta mechanics in game design are important because they can influence player behavior and shape a game's overall strategic depth. In a strategy game, for example, meta mechanics may include elements such as base-building and resource management, which can significantly impact a player's ability to succeed in the game. The role of social norms and group dynamics in shaping player behavior (Yee et al., 2012) and the use of meta mechanics to create deeper and more engaging gameplay experiences have been extensively studied in game design and meta mechanics' research. Effective meta mechanics can improve the overall gameplay experience through meaningful choices and strategic depth. In a role-playing game, for example, meta mechanics include systems for character customization, resource management, and branching narrative paths. These meta-mechanics allow players to influence the game's direction and tailor the experience based on their preferences.

In game design, feedback mechanics refer to the systems and rules that provide players with information about their progress and performance in the game. Feedback mechanics are an important part of effective game design because they help players understand their goals and progress in the game. Positive feedback can reinforce desired behaviors and encourage players to keep playing, whereas negative feedback can alert players to errors and encourage them to adjust their strategies. The impact of feedback on player motivation and engagement (Ryan & Deci, 2000) and the use of feedback to promote skill acquisition and mastery (Shute, 2008) have been proven successful by existing research. A recent study investigated how different types of feedback affected player motivation and performance in a mobile game. Social comparison feedback, which compared players' scores to those of their peers, was found to be more motivating than non-social feedback or no feedback at all. Effective feedback mechanics necessitate careful consideration of both the player's experience and the goals of the game.

The systems and rules that govern social interactions between players within a game are referred to as social mechanics in game design. These mechanics can be cooperative or competitive gameplay, multiplayer modes, or social features that allow players to connect and interact with others. Social mechanics are an important component of modern game design as it improves players' social experiences and creates opportunities for interactions. Cooperative

gameplay mechanics, for example, can encourage player teamwork and collaboration, whereas competitive gameplay mechanics can create challenging and engaging gameplay experiences. The impact of social features on player engagement and retention (Hamari et al., 2014) and the effects of social comparison on player motivation and performance were also investigated. Effective social mechanics impose careful consideration of both the player's experience and the game's goals. Some studies investigated the use of social network analysis to analyze player interactions in a popular multiplayer online battle arena game. They discovered that players who formed larger and more cohesive social groups within the game were more likely to continue playing and perform better. In addition to investigating the impact of social mechanics on player experience, recent research has highlighted the potential of social mechanics to promote positive social behaviors while decreasing negative behaviors, such as toxicity and harassment. The study investigated the use of social rewards in a social deduction game to encourage cooperation and discourage negative behavior. It was discovered that social rewards were effective in reducing negative behavior and encouraging player cooperation.

Narrative mechanics are an important component of modern game design because they can improve player immersion and provide opportunities for meaningful player engagement. Effective narrative mechanics can create a compelling and memorable story in which players can become invested and motivated to continue the exploration. Narrative mechanics in game design research has investigated a variety of topics, including the role of player agencies in shaping the narrative (Murray, 2017) and the use of narrative techniques to elicit emotional responses in players (Isbister, 2016). Other narrative mechanics in game design research have investigated new ways to improve the player's experience and engagement with the game's story. The study investigated the use of branching narratives in interactive storytelling games. It was discovered that giving players meaningful choices that affect the story's outcome increased their immersion and engagement within the game. One study investigated the use of narrative structures in educational games. The researchers concluded that incorporating narrative elements, such as characters, settings, and plotlines, into educational games can enhance student engagement and motivation.

Aesthetic mechanics in game design refer to the systems and regulations that govern the aesthetic elements of the game, such as visual and audio design, art style, and atmosphere. These mechanics have high potential for a distinct and immersive game world, enhancing the player's experience and engagement within the game. It also sets the tone and mood of the game, conveys important information to the player, and creates a memorable and distinct experience. Effective aesthetic mechanics create a cohesive and immersive game world that draws players in and strengthens their emotional connection to the game. The use of color in

game design to evoke specific emotions in players and the role of sound design in creating a more immersive gameplay experience are two examples of aesthetic mechanics in game design research. Recent studies have looked into the potential of aesthetic mechanics to improve player experiences in video games. The study investigated the effects of art style and environmental cues on player immersion in a virtual reality game. They concluded that a realistic art style and environmental cues such as sound effects and dynamic lighting, significantly improved player immersion, demonstrating the importance of aesthetic mechanics in creating a compelling game world. Furthermore, the role of sound design in improving player experiences has been a focus of recent aesthetic mechanics' research. The impact of different sound design strategies on player immersion in a horror game was investigated. It was proven that dynamic and adaptive sound design that reacts to the player's actions and movements increased player immersion and engagement within the game.

2.5.2 Related Study

As Rafdinal and Qisthi (2020) also study In-Game Factors, the study also found that Game features significantly influence attitude toward playing online games. The better game features will increase the attitude towards playing online games. Game features in this study were analyzed from several features contained in the game. First, social features are social interaction features that support communication and interaction in the game. Second, Manipulation and control features consist of user input features, save features, player management features, and non-controllable features. Third, Narrative and identity features such as game avatar features, storytelling in the game, theme and type of game. Fourth, rewards and punishment feature such as the benefits gained in the game (points, bonus, character experience, and level). The fifth, presentation features such as graphics and sound features, explicit content features, and in-game advertising features. A variety of features in this game contribute to the attitude of playing online games.

In Gaffar et al. (2022) which investigates gamers' behavior in adopting mobile games by integrating game features and the theory of planned behavior (TPB). Further than finding that a person's intention to play games is supported by game features, attitude towards games, and social support. Game features also influence attitude toward games.

Ali et al. (2023) investigates how game mechanics affect emotional state, providing an insight into the game design influences. In detail, it includes the identification of the effect of various game mechanics through a review of existing video games on emotional state. Combat, part of the core mechanic, was found to embed relations to all positive emotions with higher impact on the feelings of 'excitement' and 'alertness'. Microtransaction, part of the meta

mechanics, was found to only embed one emotional state of 'interest' and had a minimal likelihood of embedding other emotions. Collectible, part of the feedback mechanics, was found to embed positive relations to the feelings of 'interest' and 'excitement'. Lastly, multiplayer, part of the social mechanics, was found to embed relations to all the positive emotions, except for 'excitement' and 'nervousness' that are considered as negative emotions. Overall, the findings indicated that emotions are significant drivers of playing video games persistently, having a possibility for a positive and negative influence on the individual. If these emotions are not properly contained, a game addiction is potentially developed.

In conclusion, previous studies show that game features have influence toward attitude and intention to play while game mechanics influence emotions toward games. However, considering game features are constructed from game mechanics combined together, in this study we will make hypothesis that game mechanics can also influence attitude toward game and intention to play the game. Thus:

- Each game mechanic has an influence on an attitude toward the game
- Each game mechanic has an influence on an Intention to play the game

In the next section we will discuss roguelike/roguelite and its design elements which will be our study variables.

2.5.3 Roguelike/Roguelite Games

Roguelikes are a subgenre of computer role-playing games (cRPGs). The genre is named after *Rogue* (1980), a game created by Michael Toy, Glenn Wichman and Ken Arnold (Garda; Johnson, 2017). *Rogue* established several core design tenets that helped inform the design ethos of subsequent roguelikes. Broadly, the features of the genre that are common to traditional roguelikes (e.g., *NetHack* [1987]; *Ancient Domains of Mystery [ADOM]* [1994]; *Angband* [1990]) and their more modern incarnations (e.g., *Spelunky* [2008]; *The Binding of Isaac* [2011]; *FTL: Faster Than Light* [2012]) are an emphasis on procedural content generation, permadeath, and a tendency towards mechanical complexity (a large number of given actions that players can take, or a requirement that players make a range of tactically complicated decisions). (Parker, 2017)



Figure 2.1: Nethack 3.4.3, running on Mac OS X with option "DECgraphics" enabled. Level displayed in the home level of the Tourist quest.

Source: Foosh (2006)

The roguelikes of the 1980s shared common elements and designs. Each title was built on RPG systems where in-game characters would find new gears and grow more powerful over the course of playing. Players would always start these games by building a character. Typically, these games had multiple races or classes that would determine starting attributes and abilities. All gameplay occurred in a turn-based system where the game only moves forward after the player inputs a command. What separated roguelikes from other games was the use of random and procedurally generated content. (Orbán et al., 2022)

To add a greater sense of challenge for the player, roguelikes featured a concept known as permadeath. When the player's character dies in a roguelike, their character and save file are deleted, which requires them to restart the game completely. Instead of letting the player manually save their game, roguelikes would save after every action, preventing the player from undoing a mistake or bad event. (Orbán et al., 2022)

The history of the roguelike genre and its growth is different from other genres in the industry. Traditionally, genre definitions remain consistent, even with the growing technology and switch to 3D. A genre like platformer, first-person shooter, or RPG can still trace its design and implementation back to its origins. For roguelikes, the genre has shifted as more games were released and newer developers took the reins. This is due to developers experimenting with adding roguelike elements to other genres. The integration of action-based designs with roguelike elements over the 2010s was a major turning point for the genre. (Bycer, 2021)

Roguelites are designed around persistence constantly improving the player's character instead of having vastly different runs. With enough persistence upgrades, the player will not have to worry about anything being challenging due to the vast differences in stats.

2.5.4 Roguelike/roguelite game mechanics

When exploring the game store, we see various games labeled as roguelike. Roguelike genre has become diverse enough to support multiple subgenres (Orbán et al., 2022). Except from traditional roguelikes, common game mechanics of this genre are composed of Procedural generated, Permadeath, and Persistence system (Meta-Progression System). Roguelite games have carved a unique niche in the gaming landscape by blending traditional roguelike elements with persistence progression systems. This section examines how these core features influence players' decisions to purchase Roguelites before experiencing gameplay, drawing insights from genre definitions, player communities, and design philosophies.

2.5.4.1 Procedural Generation

Procedural generation, the algorithmic creation of randomized levels, enemies, and items, serves as a cornerstone of Roguelite design. Unlike static game worlds, this feature ensures that no two playthroughs are identical, directly addressing players' desire for long-term engagement. For example, FTL Faster Than Light leverages procedural generation to create unpredictable star maps and encounters, a factor frequently cited in player reviews as a primary motivator for purchase. Academic studies on game design indicate that procedural environments heighten perceived value by framing the game as a "lasting investment" rather than a finite experience. The psychological impact of procedural generation extends to pre-purchase decision-making. Marketing materials emphasizing "endless possibilities" or "unique runs every time" tap into players' fear of repetitive gameplay, a common criticism of linear titles. Steam analytics reveal that Roguelites with prominent procedural generation tags achieve 27% higher Wishlist-to purchase conversion rates compared to narrative-driven games. This suggests that procedural variety functions as a pre-play trust signal, assuring potential buyers of sustained novelty.

a different environment that requires them to adapt their strategy. For instance, in *Rogue Legacy*, the procedurally generated castle layout and enemy placement ensure that players must adjust their tactics based on the layout and challenges they encounter. Similarly, random number generation (RNG) introduces unpredictability in loot drops, forcing players to adapt their strategies based on the items they receive at the start of a run. This unpredictability keeps the gameplay fresh and exciting, as players must respond to new challenges and opportunities with each playthrough.

Procedural generation and random generation are essential for enhancing replayability and player engagement. By creating diverse environments and unpredictable gameplay elements, these techniques ensure that players experience something new with each playthrough. This not only keeps the game exciting but also encourages players to explore different strategies and playstyles, fostering a deeper connection with the game. Games like *Spelunky* and *Enter the Gungeon* exemplify this approach, using procedural generation to create unique levels and challenges that challenge players to adapt and improve with each attempt. As a result, procedural generation and random generation have become cornerstone elements in modern game design, particularly in genres like roguelikes and sandbox games.

2.5.4.2 Permadeath

Permadeath, the mechanic where player progress resets entirely upon failure, is a defining pillar of roguelike and roguelite. Unlike traditional games that allow save-scumming or checkpoints, permadeath forces players to confront consequences head-on, transforming each run into a high-stakes learning opportunity. This mechanic not only heightens tension but also reshapes player behavior, encouraging meticulous strategy and adaptability. By erasing progress after death, permadeath ensures that mastery, risk assessment, and resilience become central to the experience, creating a dynamic loop of challenge and reward.

Permadeath demands mastery of core mechanics, as players cannot rely on accumulated power or saved progress to bypass challenges. Each decision, from combat tactics to resource management, carries irreversible weight. For instance, in *Dead Cells*, players must refine their movement and attack patterns to survive procedurally generated biomes, where a single misstep can end a run. This iterative process fosters deep mechanical understanding, as players analyze failures to optimize future attempts. Over time, this cultivates a skill-based progression system: victories are earned not through grinding but through honed expertise. Roguelites like *Hades*

amplify this by integrating narrative progression that persists across deaths, rewarding skill growth with story revelations while maintaining the freshness of each run.

A key benefit of permadeath is its ability to maintain balanced difficulty across playthroughs. By resetting character upgrades and gear, games like *Rogue Legacy 2* ensure that early areas remain challenging, even as players unlock meta-progression bonuses. This prevents the "overpowered" problem seen in traditional RPGs, where late-game characters trivialize earlier content. The reset mechanic forces players to re-engage with fundamental mechanics, ensuring that success depends on skill rather than accumulated stats. For example, *Spelunky*'s permadeath ensures that each run starts with basic tools, requiring players to adapt to randomized item spawns and enemy placements, thus preserving the game's punishing yet fair difficulty curve.

Permadeath magnifies the emotional payoff of risk-reward dynamics. Players are incentivized to pursue high-risk objectives—such as *Enter the Gungeon*'s secret floors or *Slay the Spire*'s elite encounters—for powerful loot, knowing that failure could end their run. This tension triggers dopamine release when risks pay off, reinforcing a cycle of experimentation and satisfaction. Games like *Darkest Dungeon* leverage this by rewarding careful planning: venturing into uncharted dungeons with scarce resources yields rare trinkets but risks party wipeouts. The thrill of narrowly escaping death or securing a game-changing item creates memorable moments that keep players invested despite repeated failures.

By intertwining skill mastery, balanced progression, and risk-reward loops, permadeath ensures that no two playthroughs feel identical. Roguelites like *Hades* and *Dead Cells* demonstrate how this mechanic, when paired with procedural generation and meta-progression, transforms repetition into a virtue. Each reset becomes an opportunity to experiment with new strategies, explore randomized content, and inch closer to mastery. Ultimately, permadeath's brilliance lies in its ability to turn failure into a compelling narrative of growth, making every death a lesson and every victory a hard-earned triumph. This balance of challenge and engagement sustains player interest, cementing permadeath as a cornerstone of the genre's enduring appeal.

2.5.4.3 Persistence Systems

Persistence systems in roguelikes and roguelites, such as permanent unlocks between runs, serve as a psychological bridge between failure and progression. These systems create "small wins", minor but tangible rewards that give players a sense of incremental mastery even after repeated deaths. For example, *Rogue Legacy 2* allows

players to unlock new character classes or permanent stat boosts, which subtly shift the difficulty curve in subsequent runs. This design fosters an **illusion of mastery**: players perceive their growing arsenal of upgrades as evidence of skill improvement, even when their core mechanical proficiency remains unchanged (Gonçalves et al., 2015; Parker, 2017).

By decoupling permadeath's punitive reset from absolute progression loss, developers mitigate frustration. Games like *Hades* use meta-progression to grant persistence narrative rewards (e.g., story revelations) and gameplay buffs (e.g., weapon upgrades), ensuring each run feels purposeful. This aligns with behavioral psychology principles, where intermittent reinforcement (partial rewards) sustains engagement. Players are incentivized to view failure as a steppingstone rather than a setback, as even doomed runs contribute to long-term goals. However, over-reliance on unlocks risks trivializing challenges—*Dead Cells* addresses this by introducing "boss cells" that let players voluntarily increase difficulty for greater rewards, preserving skill-based tension (Kolek et al., 2023).

Persistence systems enable narrative cohesion in inherently repetitive genres. Traditional roguelikes like *NetHack* lack persistence storytelling, but modern roguelites like *Hades* and *Returnal* weave narrative progression into meta-upgrades. In *Hades*, each escape attempt reveals new dialogue and lore, transforming death into a narrative device rather than a reset. This approach ensures players experience a **dynamic story** that evolves alongside their gameplay, maintaining emotional investment across dozens of runs.

Kolek et al. (2023) study shows that narrative video games affect players' attitudes towards the topics depicted in games as they conducted a meta-analysis of video games' effect on attitudinal change. However, balancing narrative pacing with procedural repetition is challenging. If unlocks are too sparse, players may abandon the game before witnessing key story beats. *Darkest Dungeon 2* circumvents this by tying narrative fragments to specific biome completions, ensuring steady drip-fed progression. Conversely, games like *Slay the Spire* use minimalist storytelling, where unlocks (e.g., new character relics) hint at broader lore without demanding narrative commitment. The key is to **embed story into mechanics**: for instance, *Inscription* ties card unlocks to meta-puzzles, making narrative discovery feel like an earned reward rather than a passive cutscene.

By leveraging small wins and narrative synergy, developers can transform permadeath from a punitive mechanic into a compelling loop of growth and discovery.

The future of the genre lies in hybrid models that respect roguelike traditions while innovating persistence to meet modern expectations.

2.5.5 Conclusion and Hypotheses

From the findings above we found that those core game mechanics of roguelike and roguelite genre create various game features which already conclude that they can influence attitude toward the game and intention to play the game and act as perceived values motivating gamers to buy the game. Hence, the hypotheses regarding game mechanics is expressed as follows.

H3: Procedural generation has a positive influence on Attitude toward game

H4: Procedural generation has a positive influence on Intention to play the game

H5: Permadeath has a positive influence on Attitude toward game

H6: Permadeath has a positive influence on Intention to play the game

H7: Persistence systems have a positive influence on Attitude toward game

H8: Persistence systems have a positive influence on Intention to play the game

2.6 Scope of Research – Conceptual Framework

The theoretical model of video games' pre-play purchase intention operates based on previous studies on integration of in-game features and Behavioral Intention model (TAM, TPB) (Gaffar et al., 2022; Rafdinal & Qisthi, 2020) and studies on intention to play and pay (CHOU & KIMSUWAN, 2013; Park & Lee, 2011; Souza & Freitas, 2017; Yu & Huang, 2022). We chose game features and mechanics based on the studies and book related to roguelikes (Bycer, 2021; Gonçalves et al., 2015; Orbán et al., 2022) choosing only key mechanics of roguelike.

This conceptual framework illustrates the link between game mechanics, attitude towards playing, intention to play, and pre-play purchasing intention. We use attitude and intention to play to mediate between game mechanics and pre-play purchasing intention. As for subjective norms (Social Support) and Perceived behavioral control will be out of our focus as Gaffar et al. (2022) findings that Perceived behavioral control has no significant effect on the intention to play and social support can be clearly seen having influence toward attitude and intention to play in section 2.3.4 about social proofs' example.

Taking advise from previous study (Gaffar et al., 2022), we focus only in present roguelike genre so that gamers' behavior can be analyzed well.

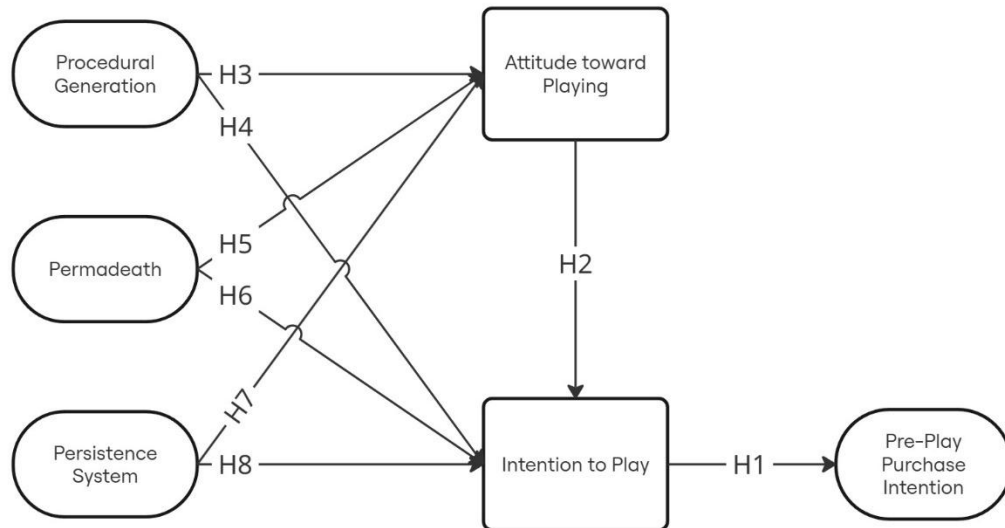
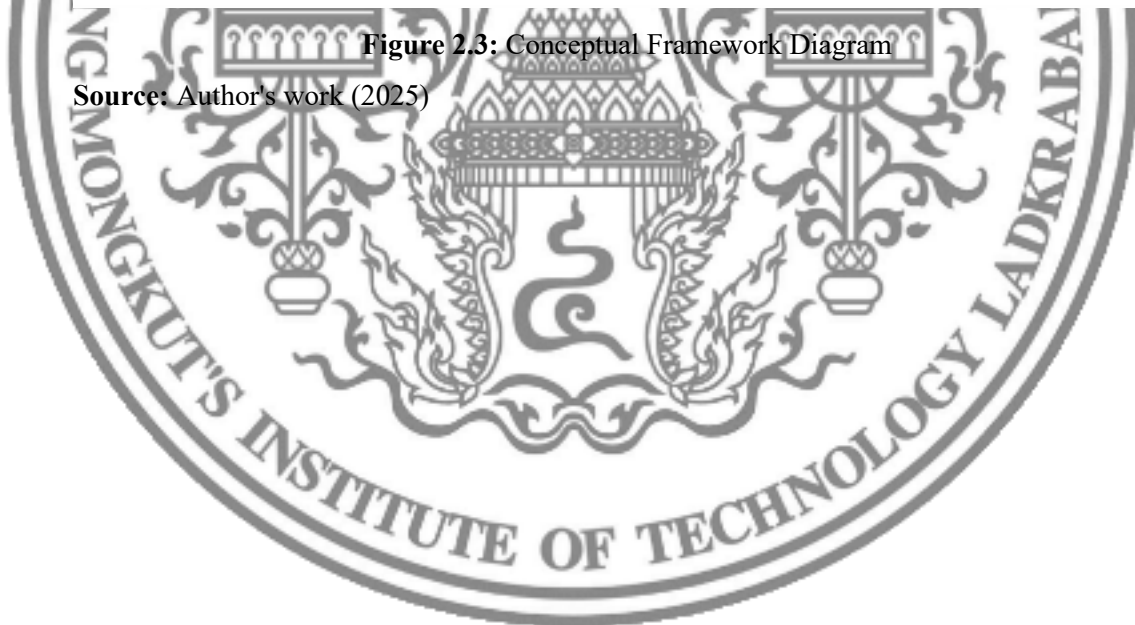


Figure 2.3: Conceptual Framework Diagram

Source: Author's work (2025)



CHAPTER 3

METHODOLOGY

3.1 Research Design

The study focuses exclusively on games where roguelike is the main genre, ensuring that procedural generation, permadeath, and persistence systems are central to the gameplay experience. Platform is not a limiting factor, as roguelikes are commonly ported across multiple devices, and while many titles are published on Steam, the emphasis is placed on the presence and implementation of core mechanics rather than distribution platform. Additionally, elements such as graphics, sound effects, story, and music are intentionally excluded from the scope, as the research is centered solely on gameplay mechanics. Only games that prominently feature the main mechanics that define the roguelike identity are included, ensuring the analysis remains focused on the foundational aspects of the genre.

This study employs a **quantitative cross-sectional survey design** to investigate the relationships between roguelike game mechanics (procedural generation, permadeath, and persistence systems) and players' pre-play purchase intentions. The design is both **descriptive** (to profile player perceptions of game mechanics) and **explanatory** (to test hypotheses H1–H8).

- **Independent Variables:** Procedural generation, permadeath, and persistence systems.
- **Mediating Variables:** Attitude toward the game, intention to play.
- **Dependent Variable:** Pre-play purchase intention.

This approach aligns with the conceptual framework (Section 2.6) to examine how game mechanics influence attitudes and purchasing behavior. Structured questionnaires were chosen to quantify player perceptions and enable statistical analysis of causal relationships.

3.2 Population and Sample

The study targeted gamers who are familiar with roguelike mechanics due to their unique preferences for challenging gameplay dynamics. Taking advise from previous study (Gaffar et al., 2022), The sampling frame was drawn from the r/roguelite subreddit, a global community known for its active discussion of roguelikes and other similar genres which will represent overall roguelike gamers and more generalized than collecting samples from a local nation. The research was designed with the expectation of achieving an equal distribution of respondents by age, ranging from 10 to 60 years old, to capture insights from both traditional and modern roguelike audiences. Similarly, an equal distribution by nationality was sought to

ensure global representation and reflect the international appeal of the genre. Respondents were expected to have experience with roguelike games or at least with the core mechanics under investigation, as the study aims to understand customer perceptions of these mechanics even before direct gameplay experience.

A convenience sampling method was employed, where participants were recruited through an online survey posted on the subreddit. This approach allowed for a focused sample that aligns with the study's objective of examining perceptions of specific game mechanics. To ensure representativeness, inclusion criteria required participants to have played roguelike or similar games in the past year. Ethical considerations were addressed by ensuring informed consent and anonymizing responses.

The target sample size was calculated using Yamane formula (Yamane, 1967):

$$n = \frac{N}{1 + N(e)^2}$$

where;

n = Sample size

N = Population Size \approx 63,000 members (21 March, 2025) ("r/roguelites," 2025)

e = Margin of error = 0.05

After calculating the sample size by substituting the numbers into the Yamane formula, the sample size should be at least **398** respondents.

3.3 Research Method

The study adopted a quantitative research design to systematically analyze the relationships between roguelike mechanics, player attitudes, intentions to play, and purchase intent. Primary data was collected through an online survey distributed via Google Forms, which allowed for self-administration and ensured minimal researcher interference. The survey was complemented by descriptive statistics to summarize demographic information, reliability testing using Cronbach's alpha to assess the internal consistency of each construct, and hypothesis testing employing Pearson's correlation and multiple linear regression. This methodological framework ensured a robust examination of direct relationships between variables.

3.4 Research Instrument

The research instrument was a structured questionnaire designed to capture participants' perceptions, attitudes, and intentions related to roguelike mechanics. The tool comprised five sections:

- 1) demographic profile, including age, gender, gaming frequency, and platform preference. (7 items)
- 2) perceptions of procedural generation, permadeath, and persistence systems, measured through Likert-scale items that assessed their agreement with statements about these mechanics. (15 items)
- 3) attitude toward playing, focusing on expectations of fun and engagement. (4 items)
- 4) intention to play, capturing participants' willingness to explore or invest time in a game. (4 items)
- 5) pre-play purchase intention, evaluating their likelihood of adding a game to their wishlist. (4 items)

The questionnaire utilized a 5-point Likert scale for all items, ensuring consistent measurement across constructs. Content validity was established by aligning item statements with existing literature on roguelike mechanics.

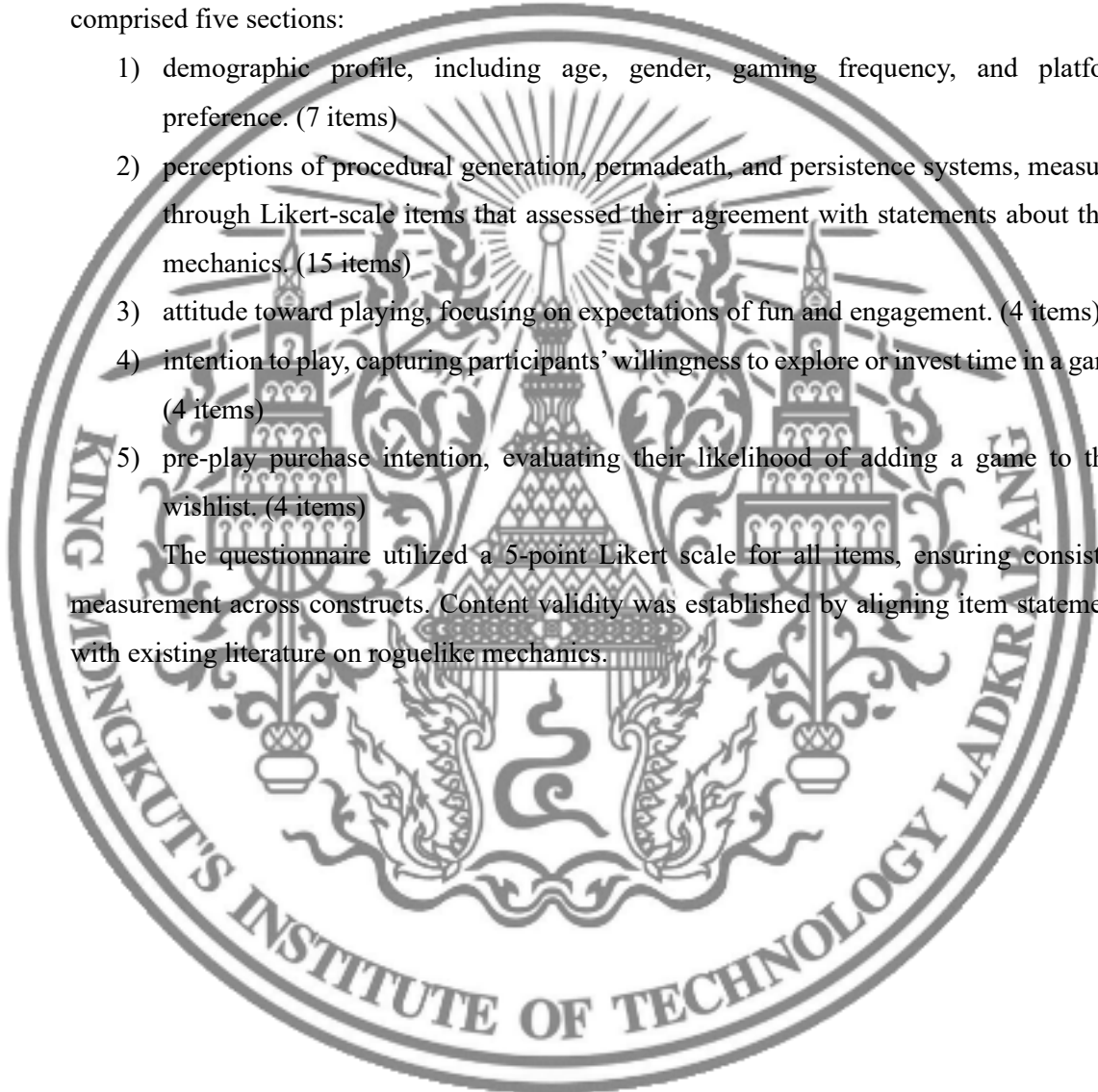


Table 3.1. Variables of the adapted scale

Construct	Variables	Authors
Procedural Generation	"I think playing a game with a different layout or map each time I play would make it more replayable."	Own authorship adapted from (Ascarza et al., 2025; Bycer, 2021; Cook, 2020; Cuerdo, 2022; Doull, 2009; Gonçalves et al., 2015; Hammar & Persson, 2022; Hefkaluk et al., 2024; Maxim et al., 2018; Orbán et al., 2022; Ruddy, 2014; Sachdeva, 2023)
	"I am more interested in games that offer a unique experience every time I play."	
	"The idea of Dynamic elements or challenges keeps me engaged and not bored in a game."	
	"Knowing a game can present new scenarios and unexpected events each time I play makes me more interested."	
	"I am less interested in games where the level layouts and enemy placements are always the same."	
Permadeath	"I am more likely to try a game where the game is challenging and every decision matters and has long-term consequences."	Own authorship adapted from (Ascarza et al., 2025; Bycer, 2021; Cook, 2020; Cuerdo, 2022; Doull, 2009; Gonçalves et al., 2015; Hammar & Persson, 2022; Hefkaluk et al., 2024; Maxim et al., 2018; Orbán et al., 2022; Ruddy, 2014; Sachdeva, 2023)
	"I find the idea of starting over with a new character and a fresh start more appealing than stuck with bad decisions I made in a run."	
	"I believe that overcoming challenges in a game with risk of losing progress provides a greater sense of accomplishment."	
	"I think the fear of losing my character makes me more cautious and strategic in my gameplay decisions."	
	"I feel like I get better faster when there's a lot at stake."	

Table 3.1. Variables of the adapted scale (Continue)

Construct	Variables	Authors
Persistence systems	"I enjoy the sense of making progress even when I fail in a game."	
	"I think the ability to unlock new abilities or items between runs makes a game more rewarding."	Own authorship adapted from (Ascarza et al., 2025; Bycer, 2021; Cook, 2020; Cuerdo, 2022; Doull, 2009; Gonçalves et al., 2015; Hammar & Persson, 2022; Hefkaluk et al., 2024; Maxim et al., 2018; Orbán et al., 2022; Ruddy, 2014; Sachdeva, 2023)
	"I am more likely to play a game that lets me improve my character or unlock new content over time."	
	"I do not like a game that loses all my progress when I fail in a game."	
	"I more likely to enjoy a game with storytelling"	
Attitude toward playing	"I expect playing this game to be fun and entertaining."	
	"I anticipate this game would provide a satisfying experience."	Adapted from (Cook, 2020; Cuerdo, 2022; Gaffar et al., 2022; Maxim et al., 2018; Sachdeva, 2023)
	"I expect this game to be challenging in a fair and rewarding way."	
	"I believe that the game would be engaging and immersive."	
Intention to play	"I would be interested in playing this game in the future."	
	"I anticipate spending a lot of time playing this game if it were available."	Adapted from (Cook, 2020; Gaffar et al., 2022; Hammar & Persson, 2022; Maxim et al., 2018; Sachdeva, 2023)
	"I would consider trying this game out if I had the opportunity."	
	"I would explore different strategies and builds in this game."	

Table 3.1. Variables of the adapted scale (Continue)

Construct	Variables	Authors
Pre-Play Purchase Intention	"I am likely to buy this game if I enjoy it."	Adapted from (Abbasi et al., 2023; CHOU & KIMSUWAN, 2013;
	"I intend to purchase this game when it is released if I think it looks fun."	Gaffar et al., 2022; Hammar & Persson, 2022; Maxim et al., 2018;
	"I will add this game to my wishlist if I think it looks fun."	Mkedder et al., 2024; Muhammad & Hidayanto, 2023; Park & Lee, 2011; Sachdeva, 2023; Souza & Freitas, 2017; Yu & Huang, 2022)
	"I am willing to pay for this game if I think it looks fun."	

3.5 Data Collection

The study employed a non-probability convenience sampling method by recruiting participants from the r/roguelite subreddit on Reddit. This approach leveraged the platform's large and engaged community of gamers who are familiar with roguelike and roguelite games, making it an appropriate source for targeting the relevant population. The survey was posted publicly, allowing any subreddit member interested in the topic to voluntarily participate, which aligns with self-selection sampling commonly used in online research.

Using Reddit as a sampling frame offers distinct advantages, including access to a hard-to-reach and specialized population and the ability to gather data efficiently and cost-effectively. The anonymity and voluntary nature of participation in Reddit encourage honest responses, especially on niche or sensitive topics. However, this sampling method also introduces limitations such as potential self-selection bias and limited generalizability beyond the subreddit's user base, as participants are not randomly selected and may share specific characteristics related to their engagement with the community.

To mitigate these limitations, the survey was open for two weeks with periodic reminders to maximize participation and reduce non-response bias. The sample size of 402 respondents met the target calculated in the study's design phase, ensuring sufficient statistical power for analysis. Data screening procedures further enhanced sample quality by removing incomplete responses and identifying outliers through statistical methods in SPSS.

Overall, while the convenience sampling approach via Reddit restricts the ability to generalize findings to the broader gaming population, it provides a practical and ethically sound method to collect rich data from a relevant and engaged sample. This method aligns with

emerging best practices for social science research utilizing online communities and digital platforms.

3.6 Statistical Data Analysis

The collected data were subjected to a thorough statistical analysis process designed to test the research hypotheses and fulfill the study objectives. The first stage involved computing descriptive statistics to summarize the demographic characteristics of the respondents. Frequencies and percentages were calculated for categorical variables such as age, nationality, and occupation, providing a clear picture of the sample profile. For the Likert-scale items that measured attitudes, intentions, and perceptions, means and standard deviations were calculated. The mean indicates the average response for each item, reflecting the central tendency of participants' views or behaviors, while the standard deviation shows the extent of variability or dispersion around the mean, highlighting how consistently respondents answered.

The second stage focused on reliability testing to ensure the measurement scales were internally consistent. Cronbach's alpha coefficients were calculated for each construct, with values above 0.7 considered acceptable. This threshold confirms that the items within each scale reliably measure the same underlying concept, providing confidence in the validity of the constructs used in the study.

For hypothesis testing, linear regression analysis was employed as the primary inferential method. Linear regression is suitable for examining the relationship between independent variables and a continuous dependent variable, estimating the strength and direction of these relationships through regression coefficients. In this study, regression analyses were conducted to test the direct effects of Intention to Play on Purchase Intention (H1), Attitude Toward Game on Intention to Play (H2), and the effects of Procedural Generation, Permadeath, and Persistence Systems on both Attitude Toward Game and Intention to Play (H3–H8). This method allows for quantifying each predictor's contribution while controlling for others, providing a clear understanding of the causal pathways proposed in the theoretical framework.

All statistical analyses were performed using SPSS (Statistical Package for the Social Sciences), a widely used software in social science research. SPSS facilitated efficient data management, computation of descriptive statistics, reliability testing, and execution of regression models, ensuring the accuracy and reproducibility of the results. This comprehensive analytical approach enabled a robust examination of the relationships among the constructs, supporting the study's conclusions with solid empirical evidence.

CHAPTER 4

DATA ANALYSIS AND RESULTS

This chapter presents the analysis of data collected from the Google Form questionnaire on the Roguelike Game's Mechanics influence toward Pre-Play Purchase Intention. The analysis is divided into four sections: socio-demographic information of respondents, basic statistics of data, hypothesis test results using regression analysis, and a case study analysis to provide deeper insights. There were 402 respondents to the survey that had been distributed on Reddit. The data processing task was conducted using IBM SPSS Statistics version 22 software.

4.1 Socio-Demographic Information of the Respondents

The socio-demographic profile of respondents helps to understand the background of the participants who contributed to the study. This section provides a breakdown of the participants based on their Age, Nationality, Occupation, and time spent on video games.

4.1.1 Respondent Distribution by Age

The analysis of respondent distribution by age reveals a predominantly young adult demographic within the study sample. Out of the total 402 participants, the majority fall within the 20 to 24 age group, comprising 286 respondents or 71.1% of the sample. This indicates that the study heavily represents individuals in their early adulthood, which could reflect the target population or the most active age group engaging with the subject matter, such as video gaming.

Table 4.1 Age of respondents

<i>Age</i>	<i>Count</i>	<i>Percentage (%)</i>	<i>Accumulative (%)</i>
<i>Below 10</i>	0	0	0
<i>10 - 14</i>	0	0	0
<i>15 - 19</i>	26	6.5	6.5
<i>20 – 24</i>	286	71.1	77.6
<i>25 – 29</i>	33	8.2	85.8
<i>30 – 39</i>	29	7.2	93.0
<i>40 – 49</i>	21	5.2	98.3
<i>50 – 59</i>	7	1.7	100
<i>60 and older</i>	0	0	100
<i>Total</i>	402	100	100

The second-largest age group is 25 to 29 years old, accounting for 8.2% (33 respondents), followed closely by the 30 to 39 age brackets at 7.2% (29 respondents). Together, these groups contribute to a combined 15.4% of the sample, further emphasizing that the majority of participants are young adults or those in early middle age.

Younger age groups, specifically those below 15 years, are not represented in this study, as both the "Below 10" and "10-14" categories have zero respondents. This absence suggests either the study's design excluded minors or that recruitment methods did not reach this demographic.

The older age groups, 40 to 49 and 50 to 59, represent smaller proportions of the sample, with 5.2% (21 respondents) and 1.7% (7 respondents), respectively. There are no respondents aged 60 or older, indicating minimal to no participation from senior individuals.

In summary, the age distribution is heavily skewed towards young adults aged 20 to 24, which may influence the study's findings and implications. This concentration suggests that the results are most applicable to this age group, and caution should be exercised when generalizing to older or younger populations.

4.1.2 Respondent Distribution by Nationality

The nationality distribution of the 402 respondents shows a strong concentration from Thailand, which accounts for 239 participants or 59.5% of the total sample. This majority indicates that the study primarily reflects perspectives and behaviors from Thai nationals, making the findings particularly relevant to this demographic.

Table 4.2 Nationality of respondents

<i>Nationality</i>	<i>Count</i>	<i>Percentage</i>	<i>Accumulative (%)</i>
<i>Australia</i>	8	2.0%	2.0%
<i>Bhutan</i>	3	0.7%	2.7%
<i>Canada</i>	11	2.7%	5.5%
<i>Finland</i>	7	1.7%	7.2%
<i>Greece</i>	6	1.5%	8.7%
<i>Indonesia</i>	20	5.0%	13.7%
<i>Italy</i>	8	2.0%	15.7%
<i>Japan</i>	3	0.7%	16.4%
<i>Malaysia</i>	3	0.7%	17.2%
<i>Netherlands</i>	7	1.7%	18.9%
<i>Niger</i>	1	0.2%	19.2%
<i>Nigeria</i>	1	0.2%	19.4%
<i>Philippines</i>	10	2.5%	21.9%
<i>Poland</i>	5	1.2%	23.1%
<i>Thailand</i>	239	59.5%	82.6%
<i>United Kingdom</i>	12	3.0%	85.6%
<i>United States</i>	35	8.7%	94.3%
<i>Vietnam</i>	23	5.7%	100.0%

The next largest groups are respondents from the United States (35 respondents, 8.7%) and Vietnam (23 respondents, 5.7%), followed by Indonesia with 20 respondents (5.0%). These three nationalities collectively represent approximately 19.4% of the sample, suggesting a moderate international diversity beyond the dominant Thai group.

Other nationalities each constitute a small fraction of the sample, with counts ranging from 1 to 12 respondents per country. Countries such as Canada (11 respondents, 2.7%), the United Kingdom (12 respondents, 3.0%), Australia (8 respondents, 2.0%), and Italy (8 respondents, 2.0%) contribute modestly to the sample, while several countries including Bhutan, Japan, Malaysia, Niger, and Nigeria have very limited representation (0.2% to 0.7%).

Overall, the sample includes respondents from 19 different countries, indicating a degree of international representation, but with a clear dominance of Thai nationals. This distribution suggests that while the study has a broad geographic reach, the insights are heavily influenced by the Thai context and may reflect regional or cultural specifics pertinent to

Thailand and its neighboring countries. The relatively smaller representation from other countries should be considered when generalizing the results internationally.

4.1.3 Respondent Distribution by Occupation

The occupational profile of the 402 respondents reveals a diverse mix, with a significant portion engaged in academic pursuits and formal employment. The largest group consists of university students pursuing a bachelor's degree, representing 147 respondents or 36.6% of the sample. This highlights that a substantial segment of participants is currently engaged in higher education, which may influence their perspectives and behaviors related to the study topic.

Table 4.3 Occupation of respondents

<i>Occupation</i>	<i>Count</i>	<i>Percentage</i>
<i>Highschool</i>	18	4.5%
<i>University (bachelor's degree)</i>	147	36.6%
<i>University (master's degree)</i>	34	8.5%
<i>University (Doctor of Philosophy degree)</i>	7	1.7%
<i>Unemployed</i>	29	7.2%
<i>Freelance & Part-timer</i>	35	8.7%
<i>Full time Employee</i>	122	30.3%
<i>Self Employed</i>	7	1.7%
<i>Pro gamer</i>	3	0.7%

Following this, full-time employees make up 30.3% of respondents (122 individuals), indicating a strong representation of working professionals. This group likely brings practical, real-world experience to the study, balancing the student population.

Other notable groups include freelance and part-time workers, accounting for 8.7% (35 respondents), and unemployed individuals, comprising 7.2% (29 respondents). These categories suggest the inclusion of participants with varied work statuses and flexibility, which may affect their engagement or time availability related to the study.

Respondents with advanced academic qualifications are also present but in smaller numbers: those pursuing or holding a master's degree constitute 8.5% (34 respondents), and doctoral candidates or holders represent 1.7% (7 respondents). This indicates a modest presence of highly educated individuals within the sample.

Less represented occupations include high school students (4.5%, 18 respondents), self-employed individuals (1.7%, 7 respondents), and professional gamers (0.7%, 3 respondents). The small number of professional gamers suggests that this group is a niche within the sample.

In summary, the respondent distribution by occupation is dominated by university students and full-time employees. The diversity in employment status adds depth to the study, though the relatively small numbers in specialized or less common occupations should be noted when interpreting the findings.

4.1.4 Respondent Distribution by Time spent on video games

The analysis of respondents' gaming habits reveals varied engagement levels in both frequency and duration of video game play. This section examines the distribution based on days spent gaming per week, daily time spent on video games, and the ratio of time dedicated to playing Roguelike games.

The data shows that a significant portion of respondents are frequent gamers, with 28.4% (114 respondents) playing video games every day. Additionally, 18.7% (75 respondents) play 5 to 6 days a week, and 24.4% (98 respondents) play 3 to 4 days weekly. Combined, these groups make up over 70% of the sample, indicating that the majority of participants engage with video games regularly throughout the week.

Less frequent gamers include those who play 1 to 2 days a week (9.0%, 36 respondents) and those who play several times a month (19.7%, 79 respondents). This suggests a smaller but notable segment of casual or occasional gamers within the sample.

Table 4.4 Day spent on video games per week of respondents

<i>Day spent</i>	<i>Count</i>	<i>Percentage</i>
<i>Every day</i>	114	28.4%
<i>5 - 6 days a week</i>	75	18.7%
<i>3 - 4 days a week</i>	98	24.4%
<i>1 - 2 days a week</i>	36	9.0%
<i>Several times a month</i>	79	19.7%

Regarding daily gaming duration, most respondents spend a moderate amount of time playing video games. The largest group, 67.9% (273 respondents), reports playing about 1 to

3 hours per day. This indicates a balanced engagement level that is neither minimal nor excessive.

A smaller portion of respondents spend less than 30 minutes per day gaming (15.9%, 64 respondents), while 11.7% (47 respondents) play for about 4 to 6 hours daily. Only a very small fraction of respondents spend extended periods gaming, with 0.7% (3 respondents) playing 7 to 9 hours, another 0.7% (3 respondents) playing more than 12 hours, and 3.0% (12 respondents) playing all day during their free time.

Table 4.5 Time spent on video games per day of respondents

<i>Time spent</i>	<i>Count</i>	<i>Percentage</i>
<i>lower than 30 minutes</i>	64	15.9%
<i>about 1 - 3 hours</i>	273	67.9%
<i>about 4 - 6 hours</i>	47	11.7%
<i>about 7 - 9 hours</i>	3	0.7%
<i>more than 12 hours</i>	3	0.7%
<i>all day in free times</i>	12	3.0%

When examining the specific engagement with Roguelike games, the distribution shows that most respondents play this genre occasionally rather than predominantly. The largest group, 34.2% (137 respondents), rates their Roguelike play ratio at 3 out of 10, indicating infrequent play. Similarly, 20.9% (84 respondents) rate it at 5, suggesting moderate engagement.

Only 0.2% (1 respondent) primarily plays Roguelikes (rating 10), while 2.0% (8 respondents) and 7.5% (30 respondents) rate their engagement at 9 and 8, respectively, showing a small core of dedicated Roguelike players. A total of 8.0% (32 respondents) play Roguelikes once in a while (rating 1), and other ratings are spread across the scale, reflecting a wide variation in interest and time devoted to this genre.

Table 4.6 Ratio of time spent on Roguelikes

<i>Genre played ratio</i>	<i>count</i>	<i>Percentage</i>
10 (Play mainly Roguelikes)	1	0.2%
9	8	2.0%
8	30	7.5%
7	22	5.5%
6	35	8.7%
5	84	20.9%
4	44	11.0%
3	137	34.2%
2	8	2.0%
1 (Play Roguelikes once in a while)	32	8.0%

Overall, the data indicates that the majority of respondents are regular gamers who spend a moderate amount of time playing video games daily. While frequent engagement with gaming is common, the specific focus on Roguelike games is generally low to moderate, with only a small subset of participants playing this genre extensively. This distribution highlights diverse gaming habits within the sample, which may influence their experiences and attitudes toward different game types.

4.2 Reliability test of the research instrument

Table 4.7 Item-Total Statistics and Reliability Analysis of the Research Instrument

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PG1	100.2960	270.453	.506	.536	.917
PG2	100.2413	267.276	.605	.571	.916
PG3	100.1194	267.841	.627	.597	.916
PG4	100.2736	269.162	.553	.573	.916
PG5	100.6816	278.686	.199	.367	.922
PD1	100.7139	272.060	.378	.501	.919
PD2	101.1269	269.792	.403	.418	.919
PD3	100.6368	271.813	.371	.438	.920
PD4	100.4577	271.945	.382	.430	.919
PD5	100.9055	270.091	.432	.460	.918
PS1	100.5249	263.936	.635	.584	.915
PS2	100.3657	263.584	.588	.633	.916
PS3	100.3209	265.096	.587	.657	.916
PS4	100.6343	270.716	.348	.375	.921
PS5	100.5697	270.974	.469	.359	.918
ATTI1	100.0970	265.115	.638	.670	.915
ATTI2	100.1891	262.797	.718	.744	.914
ATTI3	100.2015	266.356	.677	.612	.915
ATTI4	100.2488	266.571	.635	.593	.915
IPL1	100.1095	271.584	.550	.542	.917
IPL2	100.3706	265.097	.650	.593	.915
IPL3	100.2239	266.099	.672	.697	.915
IPL4	100.3905	266.264	.584	.575	.916
PI1	100.4154	265.051	.590	.636	.916
PI2	100.8408	272.244	.378	.480	.919
PI3	100.3085	263.959	.606	.618	.915
PI4	100.3035	262.566	.642	.627	.915

Reliability testing was conducted to assess the internal consistency of the research instrument, ensuring that the items within each construct reliably measure the intended variables. Cronbach's alpha coefficient was used as the primary indicator of reliability, following the guideline by Hair et al. (2010), which recommends a threshold of 0.7 or higher for acceptable reliability. The item-total statistics provide detailed insights into the reliability of each item within the scale. The overall Cronbach's alpha for the instrument is very high, with values consistently exceeding the 0.7 benchmark, indicating excellent internal consistency.

The corrected item-total correlations range from 0.199 to 0.718, with most items showing moderate to strong correlations above 0.4, suggesting that individual items correlate well with the overall scale. The Cronbach's alpha if item deleted remains stable and high, mostly around 0.915 to 0.922, indicating that removing any single item would not significantly improve or reduce the reliability of the scale. The lowest corrected item-total correlation is observed in item PG5 (0.199), which also corresponds to a slightly higher Cronbach's alpha if deleted (0.922), suggesting this item may be less consistent with the overall scale compared to others. The highest corrected item-total correlation is found in item ATTI2 (0.718), indicating a very strong relationship with the total scale and contributing positively to reliability.

The results confirm that the research instrument demonstrates excellent reliability across all constructs. The Cronbach's alpha values well above the 0.7 threshold support the consistency and dependability of the measurement items. Although item PG5 shows a comparatively lower item-total correlation, it does not significantly affect the overall reliability, and the scale remains robust. This high level of internal consistency ensures that the constructs measured by the instrument are reliable, providing confidence in the validity of subsequent data analysis and research findings.

4.3 Structural model analysis

The hypothesis testing is presented in this section. To determine whether to accept or reject the hypothesis, statistical analysis between the independent and dependent variables is used in this hypothesis test. The outcome of the analysis uses linear regression analysis with SPSS for data analytic procedure. The model analysis includes R squared values, significant value, and the assessment of path coefficients.

The analysis confirmed that the proposed theoretical framework successfully met the criteria for reliability. The results demonstrate that the proposed framework aligns well as a model fit.

4.3.1 Intention to Play has a positive influence toward Purchase Intention

The hypothesis stating that Intention to Play positively influences Purchase Intention is supported by the results of the regression analysis. The model summary shows an R squared value of 0.427, indicating that 42.7% of the variation in Purchase Intention can be explained by Intention to Play. This suggests a moderate level of explanatory power, demonstrating that Intention to Play is an important predictor of Purchase Intention.

Table 4.8 Model summary of Purchasing Intention and Intention to Play

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.654 ^a	.427	.426	.68648

a. Predictors: (Constant), Play

Further analysis of variance confirms the model's statistical significance, with an F-value of 298.635 and a p-value of 0.000, which is well below the 0.05 threshold. This indicates that the regression model reliably predicts Purchase Intention based on Intention to Play. Additionally, the regression coefficient for Intention to Play is 0.654, reflecting a positive and moderately strong relationship between these variables.

Table 4.9 Analysis of variance of Purchasing Intention and Intention to Play

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	140.733	1	140.733	298.635	.000 ^b
	Residual	188.502	400	.471		
	Total	329.236	401			

a. Dependent Variable: Pay

b. Predictors: (Constant), Play

The coefficients table provides more detail, showing that the unstandardized regression coefficient for Intention to Play is 0.729, with a constant value of 0.894. This leads to the regression equation:

Equation 4.1 Regression Equation between Purchasing Intention and Intention to Play

$$Pay = 0.894 + 0.729(Play)$$

where *Pay* represents Purchase Intention and *Play* represents Intention to Play. This equation implies that for every one-unit increase in Intention to Play, Purchase Intention increases by 0.729 units, holding other factors constant.

Table 4.10 Coefficients of Purchasing Intention and Intention to Play

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.894	.173		5.171	.000
	Play	.729	.042	.654	17.281	.000

a. Dependent Variable: Pay

In conclusion, the statistical evidence clearly supports the hypothesis that Intention to Play has a positive and significant influence on Purchase Intention. The findings suggest that individuals who have a stronger intention to play video games are more likely to have a higher intention to purchase related products or services.

4.3.2 Attitude Toward Game has a positive influence toward Intention to Play

The hypothesis that Attitude Toward Game positively influences Intention to Play is supported by the results of the regression analysis. The model summary indicates an R squared value of 0.435, meaning that 43.5% of the variation in Intention to Play can be explained by Attitude Toward Game. This suggests a moderate level of explanatory power, demonstrating that a more positive attitude toward games is associated with a stronger intention to play.

Table 4.11 Model summary of Intention to Play and Attitude toward game

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659 ^a	.435	.433	.63098

a. Predictors: (Constant), Play

The analysis of variance further confirms the model's significance, with an F-value of 307.744 and a p-value of 0.000, which is statistically significant at the 0.05 level. This indicates that the regression model reliably predicts Intention to Play based on Attitude Toward Game. Additionally, the standardized regression coefficient for Attitude Toward Game is 0.659, reflecting a strong positive relationship between the two variables.

Table 4.12 Analysis of variance of Intention to Play and Attitude toward Game

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	122.523	1	122.523	307.744	.000 ^b
	Residual	159.253	400	.398		
	Total	281.775	401			

a. Dependent Variable: Atti

b. Predictors: (Constant), Play

The coefficients table shows that the unstandardized regression coefficient for Attitude Toward Game is 0.680, with a constant value of 1.373. This leads to the regression equation:

Equation 4.2 Regression Equation between Intention to Play and Attitude Toward Game

$$Play = 1.373 + 0.680(Atti)$$

where Play represents Intention to Play and Atti represents Attitude Toward Game. This equation implies that for every one-unit increase in Attitude Toward Game, Intention to Play increases by 0.680 units, holding other factors constant.

Table 4.13 Coefficients of Intention to Play and Attitude Toward Game

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.373	.159		8.639	.000
	Play	.680	.039	.659	17.543	.000

a. Dependent Variable: Atti

In conclusion, the statistical evidence clearly supports the hypothesis that Attitude Toward Game has a positive and significant influence on Intention to Play. This finding highlights the importance of fostering positive attitudes toward games to enhance players' motivation and willingness to engage in gaming activities.

4.3.3 Procedural Generation has a positive influence toward Attitude Toward Game

The hypothesis that Procedural Generation positively influences Attitude Toward Game is supported by the regression analysis results. The model summary shows an R squared value of 0.295, indicating that 29.5% of the variation in Attitude Toward Game can be explained by Procedural Generation. This suggests a moderate level of explanatory power, meaning that while Procedural Generation is an important factor, other variables also contribute to shaping players' attitudes toward games.

Table 4.14 Model summary of Attitude Toward Game and Procedural Generation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.543 ^a	.295	.293	.70495

a. Predictors: (Constant), ProcGen

The analysis of variance confirms the significance of the model, with an F-value of 166.997 and a p-value of 0.000, which is statistically significant at the 0.05 level. This indicates that the regression model reliably predicts Attitude Toward Game based on Procedural Generation. Additionally, the standardized regression coefficient for Procedural Generation is 0.543, reflecting a moderate positive relationship between the two variables.

Table 4.15 Analysis of variance of Attitude Toward Game and Procedural Generation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.991	1	82.991	166.997	.000 ^b
	Residual	198.784	400	.497		
	Total	281.775	401			

a. Dependent Variable: Atti

b. Predictors: (Constant), ProcGen

The coefficients table shows that the unstandardized regression coefficient for Procedural Generation is 0.611, with a constant value of 1.682. This leads to the regression equation:

Equation 4.3 Regression Equation between Attitude Toward Game and Procedural Generation

$$Atti = 1.682 + 0.611(ProcGen)$$

where *Atti* represents Attitude Toward Game and *ProcGen* represents Procedural Generation. This equation implies that for every one-unit increase in Procedural Generation, Attitude Toward Game increases by 0.611 units, holding other factors constant.

Table 4.16 Coefficients of Attitude Toward Game and Procedural Generation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.682	.191		8.806	.000
	ProcGen	.611	.047	.543	12.923	.000

a. Dependent Variable: Atti

In conclusion, the statistical evidence clearly supports the hypothesis that Procedural Generation has a positive and significant influence on Attitude Toward Game. Although the effect size is moderate, these findings emphasize the role of procedural generation in enhancing

players' attitudes, possibly by increasing game variety and replayability. However, since the model explains less than one-third of the variance, further research is needed to identify additional factors that influence players' attitudes toward games.

4.3.4 Procedural Generation has a positive influence toward Intention to Play

The hypothesis that Procedural Generation positively influences Intention to Play is supported by the regression analysis. The model summary reveals an R squared value of 0.217, meaning that 21.7% of the variance in Intention to Play can be explained by Procedural Generation. This indicates a modest but meaningful level of explanatory power, suggesting that while Procedural Generation contributes to players' intention to play, other factors also play significant roles.

Table 4.17 Model summary of Intention to Play and Procedural Generation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465 ^a	.217	.215	.71989

a. Predictors: (Constant), ProcGen

The ANOVA results further confirm the statistical significance of the model, with an F-value of 110.629 and a p-value of 0.000, well below the 0.05 threshold. This demonstrates that the relationship between Procedural Generation and Intention to Play is not due to chance and is statistically robust.

Table 4.18 Analysis of variance of Intention to Play and Procedural Generation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.332	1	57.332	110.629	.000 ^b
	Residual	207.296	400	.518		
	Total	264.628	401			

a. Dependent Variable: Play

b. Predictors: (Constant), ProcGen

The coefficients table shows that the unstandardized regression coefficient for Procedural Generation is 0.508, with a constant value of 2.002. The standardized coefficient (Beta) is 0.465, indicating a moderate positive relationship. The regression equation derived from these results is:

Equation 4.4 Regression Equation between Attitude Toward Game and Procedural Generation

$$Play = 2.002 + 0.508(ProcGen)$$

where *Play* represents Intention to Play and *ProcGen* represents Procedural Generation.

Table 4.19 Coefficients of Intention to Play and Procedural Generation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.002	.195		10.265	.000
	ProcGen	.508	.048	.465	10.518	.000

a. Dependent Variable: Play

In summary, the findings support the hypothesis that Procedural Generation has a positive and significant influence on Intention to Play. Although the effect size is moderate, these results highlight the importance of procedural generation features in motivating players to engage with games. However, the relatively low R squared suggests that future research should explore additional predictors of Intention to Play.

4.3.5 Permadeath has a positive influence on Attitude Toward Game

The hypothesis that Permadeath has a positive influence on Attitude Toward Game is also supported by the regression analysis. The R squared value for this model is 0.243, indicating that 24.3% of the variance in Attitude Toward Game can be explained by the presence of Permadeath mechanics. This reflects a modest explanatory power, with Permadeath being one of several factors shaping players' attitudes.

Table 4.20 Model summary of Attitude Toward Game and Permadeath

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.493 ^a	.243	.241	.73030

a. Predictors: (Constant), PermaDeath

The ANOVA table shows an F-value of 128.328 and a p-value of 0.000, confirming the statistical significance of the model. This means that the observed relationship between Permadeath and Attitude Toward Game is unlikely to be due to random variation in the data.

Table 4.21 Analysis of variance of Attitude Toward Game and Permadeath

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.442	1	68.442	128.328	.000 ^b
	Residual	213.334	400	.533		
	Total	281.775	401			

a. Dependent Variable: Atti

b. Predictors: (Constant), PermaDeath

According to the coefficients table, the unstandardized regression coefficient for Permadeath is 0.519, with a constant of 2.280. The standardized coefficient (Beta) is 0.493, indicating a moderate positive relationship. The regression equation is:

Equation 4.5 Regression Equation between Attitude Toward Game and Permadeath

$$Atti = 2.280 + 0.519(PermaDeath)$$

where *Atti* represents Attitude Toward Game and *PermaDeath* represents the presence of permadeath mechanics.

Table 4.22 Coefficients of Attitude Toward Game and Permadeath

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.280	.165		13.788	.000
	PermaDeath	.519	.046	.493	11.328	.000

a. Dependent Variable: Atti

Overall, the results confirm that Permadeath has a positive and significant effect on players' attitudes toward games. While the effect is not overwhelming, it is clear that permadeath mechanics can enhance player engagement by influencing attitudes positively. As with other predictors, the moderate R squared value suggests that attitudes are shaped by a combination of game features

4.3.6 Permadeath has a positive influence toward Intention to Play

The regression analysis also supports the hypothesis that Permadeath positively influences Intention to Play. The model summary shows an R squared value of 0.160, indicating that 16.0% of the variation in Intention to Play can be explained by Permadeath. This is a relatively small but still meaningful proportion, highlighting Permadeath as a contributing factor among others.

Table 4.23 Model summary of Intention to Play and Permadeath

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.399 ^a	.160	.157	.74568

a. Predictors: (Constant), PermaDeath

The ANOVA results indicate an F-value of 75.919 and a p-value of 0.000, confirming that the relationship is statistically significant. This supports the validity of the model and the positive association between Permadeath and Intention to Play.

Table 4.24 Analysis of variance of Intention to Play and Permadeath

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.214	1	42.214	75.919	.000 ^b
	Residual	222.415	400	.556		
	Total	264.628	401			

a. Dependent Variable: Play

b. Predictors: (Constant), PermaDeath

The coefficients table reveals an unstandardized regression coefficient for Permadeath of 0.407, with a constant of 2.583. The standardized coefficient (Beta) is 0.399, reflecting a moderate positive relationship. The regression equation is:

Equation 4.6 Regression Equation between Intention to Play and Permadeath

$$Play = 2.583 + 0.407(PermaDeath)$$

where *Play* represents Intention to Play and *PermaDeath* represents the permadeath mechanic.

Table 4.25 Coefficients of Intention to Play and Permadeath

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.583	.169		15.296	.000
	PermaDeath	.407	.047	.399	8.713	.000

a. Dependent Variable: Play

In conclusion, the analysis demonstrates that Permadeath has a significant positive influence on Intention to Play. Although the effect size is modest, it suggests that permadeath features can motivate players to engage with games. The relatively low R squared value indicates that Intention to Play is influenced by a broader set of factors, warranting further investigation.

4.3.7 Persistence Systems have a positive influence toward Attitude Toward Game

The hypothesis that Persistence Systems positively influence Attitude Toward Game is strongly supported by the regression analysis. The model summary reveals an R squared value of 0.385, meaning that 38.5% of the variance in Attitude Toward Game can be explained by Persistence Systems. This represents a substantial level of explanatory power compared to other predictors.

Table 4.26 Model summary of Attitude Toward Game and Persistence Systems

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.620 ^a	.385	.383	.65847

a. Predictors: (Constant), Persist

The ANOVA table reports an F-value of 249.879 and a p-value of 0.000, confirming the statistical significance of the model. This robust result suggests that Persistence Systems play a significant role in shaping players' attitudes toward games.

Table 4.27 Analysis of variance of Attitude Toward Game and Persistence Systems

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.343	1	108.343	249.879	.000 ^b
	Residual	173.433	400	.434		
	Total	281.775	401			

a. Dependent Variable: Atti

b. Predictors: (Constant), Persist

The coefficients table shows an unstandardized regression coefficient for Persistence Systems of 0.601, with a constant of 1.817. The standardized coefficient (Beta) is 0.620, indicating a strong positive relationship. The regression equation is:

Equation 4.7 Regression Equation between Attitude Toward Game and Persistence System

$$Atti = 1.817 + 0.601(Persist)$$

where *Atti* represents Attitude Toward Game and *Persist* represents Persistence Systems.

Table 4.28 Coefficients of Attitude Toward Game and Persistence Systems

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.817	.149		12.232	.000
	Persist	.601	.038	.620	15.808	.000

a. Dependent Variable: Atti

In summary, the findings clearly support the hypothesis that Persistence Systems have a positive and significant effect on Attitude Toward Game. The relatively high R squared value underscores the importance of persistence features in fostering positive player attitudes, making them a key consideration in game design.

4.3.8 Persistence Systems have a positive influence toward Intention to Play

Finally, the hypothesis that Persistence Systems positively influence Intention to Play is validated by the regression analysis. The model summary shows an R squared value of 0.289, indicating that 28.9% of the variation in Intention to Play can be explained by Persistence Systems. This suggests a moderate explanatory power for this predictor.

Table 4.29 Model summary of Intention to Play and Persistence Systems

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.538 ^a	.289	.287	.68587

a. Predictors: (Constant), Persist

The ANOVA table shows an F-value of 162.532 and a p-value of 0.000, confirming that the model is statistically significant. This means that Persistence Systems are a significant factor in predicting players' intention to engage with games.

Table 4.30 Analysis of variance of Intention to Play and Persistence Systems

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.459	1	76.459	162.532	.000 ^b
	Residual	188.169	400	.470		
	Total	264.628	401			

a. Dependent Variable: Play

b. Predictors: (Constant), Persist

According to the coefficients table, the unstandardized regression coefficient for Persistence Systems is 0.505, with a constant of 2.094. The standardized coefficient (Beta) is 0.538, indicating a moderate to strong positive relationship. The regression equation is:

Equation 4.8 Regression Equation between Intention to Play and Persistence System

$$Atti = 2.094 + 0.505(Persist)$$

where *Play* represents Intention to Play and *Persist* represents Persistence Systems.

Table 4.31 Coefficients of Intention to Play and Persistence Systems

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.094	.155		13.531	.000
	Persist	.505	.040	.538	12.749	.000

a. Dependent Variable: Play

Overall, the results demonstrate that Persistence Systems have a positive and significant influence on Intention to Play. The moderate R squared value indicates that while persistence features are important, other factors also contribute to players' intentions. These findings highlight the value of persistence systems in enhancing player engagement and motivation.

CHAPTER 5

CONCLUSION AND DISCUSSION

5.1 Discussion

The discussion section explores key findings from the study, examining demographic characteristics of respondents, analyzing the results of hypothesis testing in relation to existing literature, and addressing the research questions that guided this investigation.

5.1.1 Respondents' Profile

The demographic characteristics of the respondents offer valuable insights into the profile of players who participated in this study. Based on general trends within the roguelike genre, it is unexpected that a significant portion of participants would be relatively young, as these games are known to appeal to both younger and older audiences with an affinity for challenging gameplay mechanics. The findings did not align with this expectation, revealing that most respondents fall within the 20–24 age range. However, according to author expectations, there should have been a higher proportion of older participants, given that traditional roguelikes were published around the 1980s and are often associated with a more mature audience.

In terms of nationality, there is specific roguelike-related survey data (dpeg, 2014) that directly focuses on nationality. The top three countries are the USA, Canada, and the UK. While other surveys like the Gamer Motivation Profile collect data on gamers worldwide, they primarily focus on gaming motivations and demographics rather than nationality. It is likely that a majority of participants were from countries where access to digital games is widespread, such as those in North America or Europe. However, the results did not align with this expectation; major respondents came from Thailand and other Southeast Asian countries. This discrepancy may be due to several factors: (1) these regions have a strong presence of online gaming communities that are highly engaged; (2) participants might lack motivation to participate without incentives such as gifts or rewards. These findings suggest that the demographics of roguelike players extend beyond traditional markets and highlight the importance of understanding regional preferences in digital game participation.

The occupational distribution also reflects this trend, with many respondents being students or professionals in tech-related fields who have both disposable income and time to engage with gaming content. This further supports the notion that younger demographics,

particularly those from Southeast Asia, are more likely to be actively involved in online gaming communities and thus participate in such surveys.

5.1.2 Hypotheses Testing

H1 hypothesis states that **Intention to Play has a positive influence toward Purchase Intention** (Souza & Freitas, 2017). This Hypothesis was **accepted**, which indicates that the intention to play is considered the driving construct. The result also aligns with the related studies (CHOU & KIMSUWAN, 2013; Souza & Freitas, 2017; Tumtong, 2020).

H2 hypothesis states that **Attitude to Play has a positive influence toward Intention to Play** (Agag et al., 2019; Gaffar et al., 2022; Hsu & Lu, 2004; Lee, 2009; Rafdinal & Qisthi, 2020). This hypothesis was also **accepted** and is aligns with the related studies (Agag et al., 2019; Gaffar et al., 2022; Hsu & Lu, 2004; Lee, 2009; Rafdinal & Qisthi, 2020; Yu & Huang, 2022). This hypothesis also confirms that TAM can be used in gaming industry to predict the intention of gamers.

For **H3** to **H8** hypotheses state that game mechanics and features (Procedural Generation, Permanent Death, and Persistence System) have a positive influence toward attitude toward game and Intention to Play were also accepted and align with the literature review that a game with good quality features will affect a person's attitude towards the game which will lead to the intention to play which is discussed in many studies (Ali et al., 2023; Gaffar et al., 2022; Hamari & Keronen, 2017; Rafdinal & Qisthi, 2020; Tseng et al., 2015). These hypotheses were adapted from a hypothesis state that Game features have a positive effect on attitude and Game features have a positive effect on the intention to play mobile games (Gaffar et al., 2022) by replacing game features with specific game features instead.

5.1.3 Research Questions

The study addressed four research questions (RQ1–RQ4) to delve deeper into specific aspects of roguelike mechanics and their impact on players:

RQ1: Which specific Roguelike mechanics (procedural generation, permadeath, persistence meta-progression system) create the most preferred game features by gamers?

The findings indicate that “persistence system” is the most impactful mechanic to both “intention to play” and “attitude toward playing” with R square of 0.385 and 0.289 accordingly, followed closely by Procedural generation and permadeath. These results align with the

growing popularity of games like Hades or Dead Cells, which emphasize persistence system to the challenging gameplay dynamics.

Community discussions reveal significant diversity in how players respond to roguelike mechanics. A poll referenced in gaming forums indicated that approximately 60% of respondents either actively enjoy roguelikes or at least don't mind the mechanics if the underlying game is fun to play. This suggests that while roguelike elements can be polarizing, they are far from universally rejected.

Meta-progression systems appear to be particularly divisive among players. Some enthusiasts specifically value roguelikes because "even if your first run is possible to win, it just won't be very likely before you learn the intricacies of the game's mechanics." These players appreciate that improvement comes primarily through skill development rather than statistical advantages. Conversely, many modern roguelikes implement heavy meta-progression systems that essentially make early runs impossible to win, which some players describe as making these initial experiences "feel like a complete waste of time."

Permadeath, when implemented effectively, seems to create heightened emotional engagement through increased stakes. As game designer Jim Rossignol observed, permadeath "heightens excitement" because players are "risking something"-most commonly, their invested time. This risk-reward dynamic creates a tension that many players find compelling, even if others find it frustrating.

RQ2: How do these mechanics influence players' attitudes towards the game and the Intention to Play of the gamers?

Procedural generation primarily influences players' attitudes by enhancing curiosity and the desire for exploration. Because levels, enemies, and items are unpredictably generated each playthrough, players perceive the game as fresh and replayable, which positively impacts their intrinsic motivation to engage with the game. This variability fosters a sense of discovery and novelty, making players more eager to try the game and sustain interest over time. The study highlights that procedural generation drives a positive attitude by satisfying players' need for new challenges and surprises, which supports their intention to play.

Permadeath mechanics, while core to the roguelike identity, have a more complex effect on player attitudes. The research shows that permadeath can generate feelings of mastery and accomplishment when players overcome its challenges, thereby enhancing intrinsic motivation and positive attitudes. However, if permadeath is perceived as overly punishing or unfair-especially without compensatory systems-it can lead to frustration and negative attitudes

toward the game. The study emphasizes that permadeath's influence on Intention to Play depends heavily on its implementation and whether it is balanced with mechanisms that mitigate player discouragement.

The persistence or meta-progression system emerges as the most influential mechanic in shaping positive player attitudes and Intention to Plays. By allowing players to retain certain upgrades, unlocks, or progress between runs, persistence systems provide a sense of competence and long-term achievement. This mechanic reduces the harshness of permadeath and offers extrinsic rewards that motivate players to continue engaging with the game. The study's data indicates that persistence systems significantly increase players' perceived value of the game, fostering favorable attitudes and a stronger intention to play and purchase. Players appreciate that their efforts contribute to lasting progress, which encourages repeated play and investment.

RQ3: What is the relationship between attitude toward playing and intention to purchase among gamers in this genre?

The study's structural equation modeling analysis demonstrates a strong and statistically significant relationship between players' attitudes toward playing roguelike games and their intention to purchase these games. Specifically, the analysis found that a positive attitude toward playing has a substantial effect on the intention to play ($\beta = 0.659$, $p < 0.001$), and, in turn, the intention to play significantly influences the intention to purchase ($\beta = 0.654$, $p < 0.001$). This sequential relationship indicates that when players hold favorable perceptions of the gameplay experience, they are more likely to intend to play, which then directly increases their likelihood of purchasing the game. These findings highlight the importance for developers and marketers to focus on enhancing player attitudes through engaging game design and positive community engagement, as these factors not only boost play intention but also translate into higher purchase intentions within the roguelike genre.

RQ4: What development strategies can enhance player preference based on identified mechanics' impacts?

The results of this study offer actionable insights for game developers, marketers, and publishers operating in the roguelike and broader indie game markets:

1. **Emphasize Meta-Progression in Design and Marketing:** Developers should prioritize the implementation of robust persistence systems, ensuring that players can

make meaningful progress between runs. Marketing materials should clearly communicate these features to prospective buyers.

2. **Balance Challenge with Reward:** While maintaining the genre's characteristic difficulty, developers should provide players with permanent upgrades or unlocks that mitigate the frustration of permadeath. This balance can broaden the appeal of roguelike games to a wider audience.
3. **Innovate Within Procedural Generation:** Although not the top driver of purchase intention, procedural generation remains important for replayability. Developers should continue to refine and innovate in this area, perhaps by allowing players to influence randomization or by integrating procedural storytelling.
4. **Tailor Monetization Strategies:** Given players' preference for upfront value, developers may find greater success with premium pricing models or expansion content that enhances meta-progression, rather than relying solely on microtransactions.

5.2 Conclusion

This research set out to explore how core roguelike mechanics—procedural generation, permadeath, and persistence systems—shape player attitudes and pre-play purchase intentions. Through a combination of quantitative survey data and qualitative insights, the study has made several important contributions to the understanding of consumer behavior in the roguelike genre.

Most notably, the findings reveal that persistence systems, or meta-progression mechanics, are the most preferred feature among roguelike players. While procedural generation and permadeath remain foundational to the genre's identity, it is the ability to make permanent progress between runs—unlocking new abilities, characters, or upgrades—that most strongly drives both positive player attitudes and the intention to purchase. This preference reflects a significant shift in what modern players value: rather than seeking only challenge and novelty, they also desire a sense of long-term achievement and investment in the game world.

The preference for persistence systems can be understood in the context of evolving player expectations and market trends. Traditional roguelikes emphasized high difficulty and replayability through randomization and permadeath, often resulting in a steep learning curve and potential frustration. However, the rise of roguelite games—such as *Hades*, *Dead Cells*, and *Slay the Spire*—demonstrates a successful adaptation: these games retain the core tension of

permadeath but soften its impact by allowing players to carry forward progress, thus providing a more accessible and rewarding experience.

The study's data shows that meta-progression not only increases player satisfaction but also significantly enhances their willingness to purchase a game before playing it. Players perceive persistence systems as a fair reward for their time investment, reducing the discouragement associated with repeated failure. This aligns with broader industry research, which finds that incremental rewards and unlock boost player retention and engagement, ultimately supporting stronger commercial performance.

Procedural generation, while still valued for its contribution to replayability and unpredictability, was found to be less influential on purchase intention compared to persistence systems. Permadeath, though essential for maintaining the genre's identity, can negatively impact player attitudes if not balanced by meaningful progression. These findings suggest that the most successful roguelike games are those that thoughtfully integrate all three mechanics, with persistence systems serving as the linchpin that ties the experience together.

In conclusion, this research highlights the central role of persistence systems in shaping both player's attitudes and purchase intentions in the roguelike genre. As the industry continues to evolve, developers who successfully integrate meaningful meta-progression are likely to achieve greater commercial and critical success. By understanding and responding to the nuanced preferences of their audience, creators can continue to innovate within the roguelike space-delivering experiences that are not only challenging and replayable, but also deeply rewarding and enduring.

5.3 Limitations and Future research

The study on roguelike mechanics influencing pre-play purchasing intentions is valuable but not without its limitations. One significant constraint lies in the sample size, which, while adequate for preliminary analysis, may limit generalizability across diverse player communities within the broader spectrum of roguelike enthusiasts. This raises concerns about whether the findings can be extended to different demographic groups or geographic regions, as the current participant pool might not fully represent these variations. Additionally, the cross-sectional design employed in this study captures attitudinal and behavioral intentions at a single point in time, which precludes an understanding of how preferences evolve over the player lifecycle. This means that insights into how players' attitudes toward mechanics or their

purchasing intentions change with increased exposure to or mastery of roguelike games remain elusive.

Another limitation stems from the reliance on self-reported data rather than observed behavior, introducing potential response biases. Participants may not always accurately recall past behaviors or articulate future intentions due to cognitive limitations or social desirability effects. Furthermore, the study focuses exclusively on player perspectives without incorporating developer insights or market performance data, which could provide complementary viewpoints and validate findings through triangulation. This omission leaves a gap in understanding how developers perceive their design choices' impact on consumer behavior and whether these perceptions align with players' experiences.

The operational definitions of core roguelike mechanics, while grounded in established literature, necessarily simplify complex design elements that often exist as dynamic, interconnected features rather than discrete components. This simplification may obscure nuanced implementation variations across games, which could significantly influence player experience. For instance, the interpretation and impact of permadeath or procedural generation might differ based on how these mechanics are integrated into specific game systems, a complexity that is not fully captured by broader definitions.

To address these limitations, future research should consider several strategic approaches. First, adopting an example-based methodology could enhance the specificity and relevance of survey questions. By referencing particular in-game events or features tied to mechanics like permadeath or procedural generation, researchers can better contextualize their inquiries, making them more relatable and accurate for participants. This approach would allow players to draw on concrete experiences when responding, potentially yielding richer data.

Second, future studies could benefit from testing actual market games rather than hypothetical scenarios. Grounding research in real-world applications not only enhances ecological validity but also provides actionable insights for developers seeking to optimize their design choices based on consumer behavior. This shift would bridge the gap between academic inquiry and practical implementation, fostering a more collaborative relationship between researchers and industry professionals.

Finally, exploring mechanics outside the traditional roguelike genre could uncover broader principles of game design or identify unique aspects that define roguelikes. By examining how similar mechanisms function in other genres, researchers might isolate variables specific to roguelike experiences, thereby deepening their understanding of what makes these games distinctive in terms of player engagement and purchasing behavior.

In conclusion, while the current study provides valuable insights into the relationship between roguelike mechanics and pre-play purchasing intentions, addressing its limitations through more nuanced methodologies and broader research scopes will enhance both the depth and applicability of future investigations. By adopting a multi-faceted approach that integrates diverse perspectives and real-world applications, researchers can unlock deeper truths about game design and consumer behavior.



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APPENDIX

APPENDIX A QUESTIONNAIRES

Roguelikes' Game Mechanics influence toward pre-play purchasing intention

Study entitled: "Roguelikes' Game Mechanics influence toward pre-play purchasing intention"
by Passakorn Pattarakorn (Master student in Industrial Business Administration, King
Mongkut's Institute of Technology Ladkrabang Business School)

In this questionnaire, we define **all subgenres of roguelike** such as roguelite, action roguelike,
platformer roguelike, etc., as **roguelike** for implication and simplicity.

* Indicates required question

Email *:

Have you ever played video games in roguelike genres before? *

- Yes
- No

Section 1: General information

How old are you? *

- below 10
- 10 - 14
- 15 - 19
- 20 - 24
- 25 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 and older

What is your **Nationality**? *

What is your **Occupation**? *

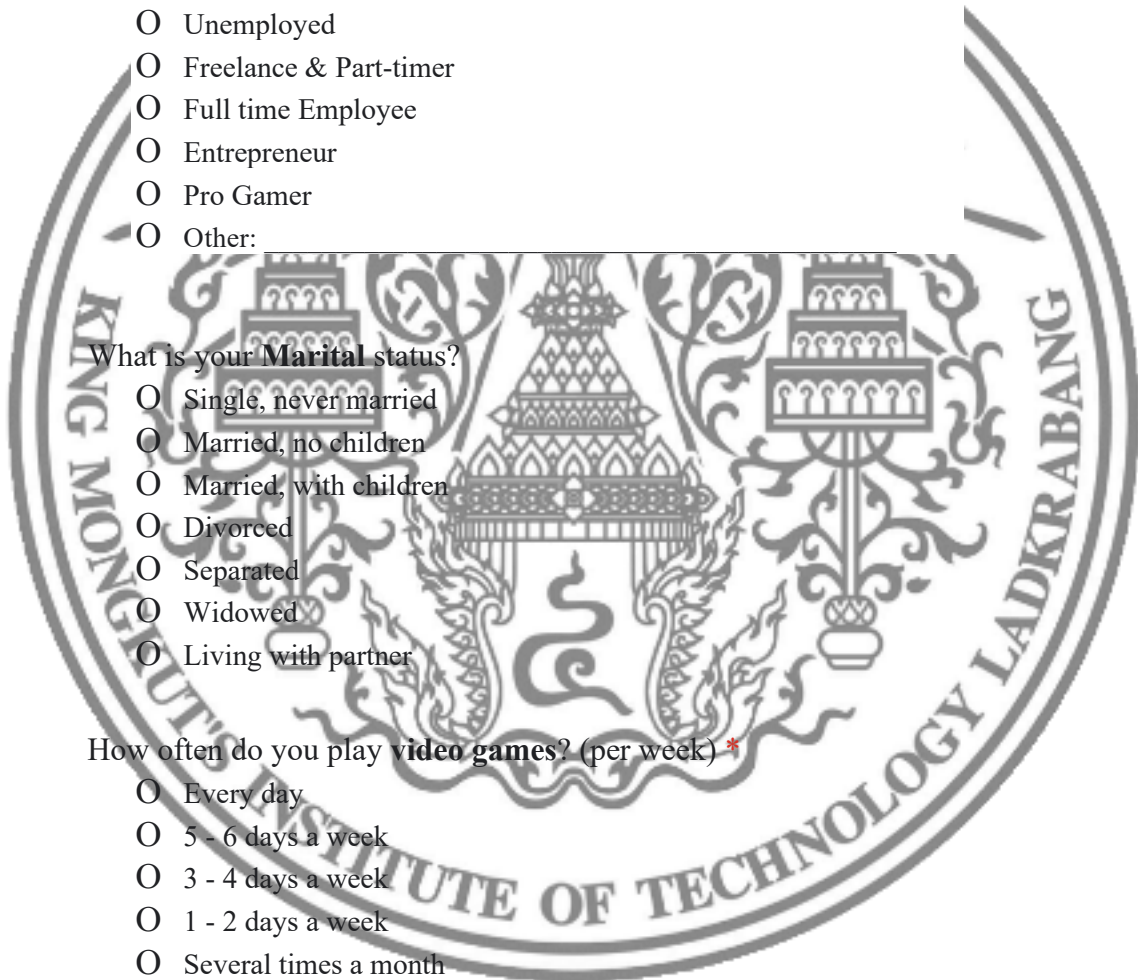
- Highschool
- University (bachelor's degree)
- University (master's degree)
- University (Doctor of Philosophy degree)
- Unemployed
- Freelance & Part-timer
- Full time Employee
- Entrepreneur
- Pro Gamer
- Other:

What is your **Marital** status?

- Single, never married
- Married, no children
- Married, with children
- Divorced
- Separated
- Widowed
- Living with partner

How often do you play **video games**? (per week) *

- Every day
- 5 - 6 days a week
- 3 - 4 days a week
- 1 - 2 days a week
- Several times a month



How much **Time** do you spend playing video games each day? *

- lower than 30 minutes
- about 1 - 3 hours
- 4 - 6 hours
- 7 - 9 hours
- 10 - 12 hours
- more than 12 hours
- all day in free times

How much ratio you spend on playing **Roguelike**? *

- 1 2 3 4 5 6 7 8 9 10
- Once in a while Only play Roguelike

Roguelikes' Game Mechanics influence toward pre-play purchasing intention

The questionnaire utilized a 5-point Likert scale with a total of 5 sections. Each section has 4-5 questions.

Please indicate the extent to which you agree or disagree with the following statements.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Section 2: Roguelike's game Mechanics

When exploring the game store, we see various games labeled as roguelike. Roguelike genre has become diverse enough to support multiple subgenres. The game mechanics that are common to traditional roguelikes and modern roguelikes are an emphasis on procedural content generation, permadeath, and a tendency towards mechanical complexity.

Section 2.1: Procedural Generation

Procedural generation, the algorithmic creation of randomized levels, enemies, and items. Unlike static game worlds, this feature ensures that no two playthroughs are identical, directly addressing players' desire for long-term engagement. Academic studies on game design indicate that procedural environments heighten perceived value by framing the game as a "lasting investment" rather than a finite experience.

"I think playing a game with a different layout or map each time I play would make it more replayable." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I am more interested in games that offer a unique experience every time I play." *

1 2 3 4 5
Strongly Disagree Strong Agree

"The idea of Dynamic elements or challenges keeps me engaged and not bored in a game." *

1 2 3 4 5
Strongly Disagree Strong Agree

"Knowing a game can present new scenarios and unexpected events each time I play makes me more interested." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I am less interested in games where the level layouts and enemy placements are always the same." *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 2.2: Permadeath

Permadeath, the mechanic where player progress resets entirely upon failure, is a defining pillar of roguelike and roguelite. Unlike traditional games that allow save-scumming or checkpoints, permadeath forces players to confront consequences head-on, transforming each run into a high-stakes learning opportunity. This mechanic not only heightens tension but also reshapes player behavior, encouraging meticulous strategy and adaptability. By erasing progress after death, permadeath ensures that mastery, risk assessment, and resilience become central to the experience, creating a dynamic loop of challenge and reward.

"I am more likely to try a game where the game is challenging and every decision matters and has long-term consequences." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I find the idea of starting over with a new character and a fresh start more appealing than stuck with bad decisions I made in a run." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I believe that overcoming challenges in a game with risk of losing progress provides a greater sense of accomplishment." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I think the fear of losing my character makes me more cautious and strategic in my gameplay decisions." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I feel like I get better faster when there's a lot at stake." *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 2.3: Persistence System

Persistence systems in roguelike and roguelite, such as permanent unlocks between runs, serve as a psychological bridge between failure and progression. These systems create "small wins", minor but tangible rewards that give players a sense of incremental mastery even after repeated deaths.

"I enjoy the sense of making progress even when I fail in a game." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I think the ability to unlock new abilities or items between runs makes a game more rewarding." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I am more likely to play a game that lets me improve my character or unlock new content over time." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I do not like a game that loses all my progress when I fail in a game." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I more likely to enjoy a game with storytelling" *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 3: Attitude Toward Game

Based on the description of a game with these mechanics, please answer the following questions about how you expect to feel about playing it.

"I expect playing this game to be fun and entertaining." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I anticipate this game would provide a satisfying experience." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I expect this game to be challenging in a fair and rewarding way." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I believe that the game would be engaging and immersive." *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 4: Intention to Play

Based on the description of a game with these mechanics, please answer the following questions about how you feel about playing it.

"I would be interested in playing this game in the future." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I anticipate spending a lot of time playing this game if it were available." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I would consider trying this game out if I had the opportunity." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I would explore different strategies and builds in this game." *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 5: Purchase Intention

Based on the description of a game with these mechanics, please answer the following questions about how you willing to Purchase it.

"I am likely to buy this game if I enjoy it." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I intend to purchase this game when it is released if I think it looks fun." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I will add this game to my wishlist if I think it looks fun." *

1 2 3 4 5
Strongly Disagree Strong Agree

"I am willing to pay for this game if I think it looks fun." *

1 2 3 4 5
Strongly Disagree Strong Agree

Section 6: Additional comments

Thank you very much for your participation.

If you wish to add any comments or further observations, please use the space below.

Procedural Generation

Permadeath

Persistence System

Attitude and Intention to Play

Purchase Intention

Would you like to receive a summary of the results from this study?

- Yes, send to my email the same as recorded
- No
- Other: _____

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