

***Emotional and Experiential Aspects of Video Game Consumption:
A Multidimensional Outlook***



By:

Usama Shahid

01-322212-022

MBA 2 Years

Supervisor:

Dr. Asif Khurshid

Department of Business Studies

Bahria University Islamabad

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Names of Student: Usama Shahid

Enroll #: 01-322212-022

Class: MBA 2 years

Approved by:

Dr. Asif Khurshid
Supervisor

Izza Shahzad
Internal Examiner

Kashif Abrar
External Examiner

Dr. Syed Haider Ali Shah
Research Coordinator

Dr. Khalil Ullah Mohammad
Head of Department
Business Studies

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ABSTRACT

The purpose of this study is to know Emotional and Experiential Aspects of Video Game Consumption through a Multidimensional approach. This study will help us to know what Emotional and Experiential Aspects effects player's video gaming behaviour. The purpose is to help Pakistani MOBA genre game developer to make more intriguing MOBA games to attract masses. Moreover the aim of this study is to help marketers to highlight these aspects in their marketing strategies, thereby capturing the attention of potential players and enticing them to try their games.

Previous studies have predominantly focused on examining consumers' psychological aspects of Video Game Consumption, which refers to the level of pleasure, emotional satisfaction, and enjoyment derived from playing video games, from a single perspective. However, considering the increasing variety of technology-driven elements in gaming that contribute to emotional and experiential aspects of video game consumption (such as aesthetics, competition, and social interactions), realising that this narrow viewpoint is outdated. Consequently, proposed a comprehensive, multi-dimensional understanding of gamers' sensory experience, drawing insights from 'hedonic consumption theory' and the 'theory of planned behaviour'.

By surveying 260 Pakistani DOTA2 gamers through Pakistani DOTA2 Discord channels and in-game chatrooms we applied purposive sampling.

My findings confirm that Fantasy, Role Projection, Emotional Involvement and Enjoyments influence gamers' attitudes towards video games, subsequently affecting their intentions and behaviours related to gaming. I further discovered that Escapism, Arousal and Sensory Experience does not have an effect on player's video gaming intent. Finally, the study concluded by discussing the implications that arise from our research.

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Chapter 1

INTRODUCTION

1.1 Background of the study

Video game industry is rapidly booming in recent years, marking a significant increase in its popularity and market size. This growth can be attributed to several factors that have contributed to the industry's expansion and widespread appeal.

From the early days of arcade games and console systems to the advent of personal computers and the proliferation of mobile gaming, the accessibility and availability of video games have expanded rapidly. This evolution has been fuelled by technological advancements, improved graphics and gameplay, and the rise of online multiplayer experiences (Andrew K. Przybylski N. W., 2017). As a result, video games have become a mainstream form of entertainment, appealing to individuals of all ages and demographics.

One key driver of the video gaming industry's increase is technological advancements. With the advent of more powerful consoles, high-performance PCs, and mobile devices, gamers now have access to cutting-edge hardware capable of delivering immersive and visually stunning gaming experiences.

Another contributing factor is the proliferation of online gaming and digital distribution platforms. Online multiplayer capabilities have revolutionized gaming, enabling players from around the world to connect, compete, and collaborate in virtual environments. The advent of digital distribution platforms, such as “Steam”, “Epic Games Store”, and console marketplaces, has made it easier than ever for gamers to access and purchase games instantly, eliminating the need for physical copies and expanding the reach of game developers.

One of the most prominent factors of remarkable surge in Video Gaming was Covid-19. According to the Global Games Market Report from market intelligence firm (Newzoo, 2020) the global gaming market was valued at \$159.3 billion in 2020 that is more than Film industry and Music Industry. Even more than both Film and Music industry combined revenue.

Before this expansion of video game industry, behavioural aspects of video game consumption have been the subject of numerous studies, providing valuable insights into the gamer's video

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gaming behaviours. Researchers have explored various dimensions of emotional engagement and experiential factors in the context of video game consumption, shedding light on the psychological, social, and cultural aspects involved.

Hedonic consumption refers to the pleasurable and enjoyable aspects of consumption experiences (Elizabeth C. Hirschman, 1982). It encompasses emotional, sensory, and psychological gratification, highlighting the role of positive affect and subjective well-being in shaping consumer behaviour (Morris B. Holbrook, 1982). In the context of video games, hedonic consumption focuses on the intrinsic motivation and gratification individuals experience when engaging with these interactive digital media (Richard M. Ryan C. S., 2006).

The concept of hedonic consumption, rooted in consumer behaviour theory, focuses on the experiential aspects of consumption and the pursuit of pleasure, enjoyment, and emotional gratification (Elizabeth C. Hirschman, 1982). Video games, with their immersive and interactive nature, offer a unique platform for individuals to engage in hedonic experiences. Players are transported into virtual worlds where they can assume different roles, solve puzzles, compete with others, and experience a range of emotions such as excitement, joy, and thrill.

Understanding the multidimensional aspects of hedonic video game consumption is crucial for various reasons. Firstly, video games have transformed from being mere entertainment to an influential cultural medium that shapes individuals' identities, social interactions, and leisure activities (Consalvo, 2009) (Taylor, 2006). As such, investigating the motivations and gratifications associated with video game consumption can shed light on the broader social and psychological implications of this phenomenon.

Secondly, the video game industry has evolved significantly, offering a wide variety of game genres, platforms, and business models to cater to diverse consumer preferences (Juho Hamari D. J.-C., 2016). From casual mobile games to massive multiplayer online role-playing games (MMORPGs) and virtual reality (VR) experiences, the range of video game options available has expanded substantially. Exploring the multidimensionality of hedonic video game consumption can help identify the specific factors that contribute to players' enjoyment and engagement across different game types.

Moreover, video game consumption has not only become a personal leisure activity but also a social phenomenon. Online multiplayer games and e-sports have transformed video games into

interactive social spaces where players can collaborate, compete, and form communities (Rachel Kowert, 2014). The social dimension of video game consumption adds another layer of complexity in understanding the hedonic experiences and motivations of players.

Several theoretical frameworks have been proposed to explain the factors influencing hedonic video game consumption. Self-determination theory (SDT) posits that individuals are driven by three basic psychological needs: autonomy, competence, and relatedness (Richard M. Ryan E. L., 2000). According to SDT, video games can provide opportunities for autonomy and competence through challenges, mastery, and exploration, while online multiplayer games can fulfil the need for relatedness through social interaction and collaboration (Andrew K. Przybylski C. S., 2010).

Additionally, the uses and gratifications theory suggests that individuals actively select and use media based on their needs and preferences (Elihu Katz, 1974). In the context of video games, individuals may seek hedonic experiences for various reasons, such as escapism, stress relief, socialization, achievement, or fantasy fulfilment (Nick Yee, 2006).

The previous study attempts to predict the continuance intention (i.e., the desire to continue playing) of online multiplayer games. It develops a model integrating the social cognitive theory (SCT), the flow theory, and subjective norms (from the theory of planned behaviour). These three aspects cover cognitive, affective, and social influences, respectively, on a player's intention to continue playing online games. The study indicates that a player's decision to continue playing an online game isn't merely dependent on the game's user interface but also on the social interactions within the game (human-to-human interactivity). The study suggests that the continuance of online gaming can be attributed to hedonic/utilitarian expectations (derived from SCT), the 'flow' or affective state experienced by the player (flow theory), and social influences (subjective norms). According to the findings, players are more likely to continue playing online games when they can realize positive hedonic outcomes. Utilitarian motivations, such as achieving a higher status or earning virtual value, are also important driving factors. Additionally, the study suggests that maintaining a player's flow state requires a balance of challenge, skills, and social needs. (I-Cheng Chang, 2014).

The affective and behavioural engagement have a significant positive impact on various consumption behaviours, including community engagement, coproduction, new player recruitment, purchase intent, and positive word-of-mouth. However, cognitive engagement has

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a limited effect on purchase intent and word-of-mouth. The findings suggest that fostering affective and behavioural engagement with e-sports videogames is crucial for driving desirable consumption behaviours. E-sports videogame developers and marketers are recommended to focus on creating immersive and experiential gameplay that appeals to consumers' emotions and encourages active participation. Additionally, strategies such as incentivizing players, leveraging game-based innovation, and targeting diverse consumer segments can help enhance engagement and drive positive consumption behaviours. (Linda D. Hollebeek A. Z., 2020).

In previous studies researchers propose a conceptual framework that includes four key dimensions of hedonic consumption experience in video gaming: immersion, challenge, social interaction, and aesthetics. Immersion refers to the extent to which players feel deeply engaged and absorbed in the virtual world of the game. Challenge reflects the degree of difficulty and complexity presented by the game, which can evoke a sense of achievement and satisfaction. Social interaction encompasses the social aspects of gaming, such as playing with others, forming relationships, and engaging in cooperative or competitive interactions. Aesthetics pertain to the visual and audio elements of the game, including graphics, sound design, and overall sensory appeal. This study was only applicable on PUBG as the research was conducted on PUBG players and PUBG spectators (Linda D. Hollebeek A. Z., 2022).

Social influence factors, such as critical mass and subjective norm, do not significantly impact players' intention to continue playing online games. The number of existing players within the gaming community and the opinions of significant others regarding online gaming activities do not play a significant role in influencing players' decision to continue playing. Hedonic outcome expectations and utilitarian outcome expectations have a positive influence on the intention to play online games continually. Players are motivated to continue playing online games to seek pleasure, fun, enjoyment (hedonic outcomes), and social status, extrinsic rewards (utilitarian outcomes). It is important to understand the factors that drive players' continuance intention to play online games, particularly the influence of hedonic and utilitarian outcome expectations. This knowledge can be valuable for game designers and marketers in promoting long-term engagement and loyalty among players (Tze Wei Liew, 2022).

The influence of Consumer eSports Engagement (CeSE) on consumption behaviours among male Generation Z eSports players in Islamabad and Rawalpindi, Pakistan. Through the cross-sectional approach using self-administered questionnaires and Partial Least Squares Structural Equation Modeling (PLS-SEM) analyses, the research found that CeSE significantly impacts

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players' purchase intention, community engagement, co-production, recruitment, and word-of-mouth behaviour in eSports contexts. A conducive environment for player engagement, innovative game designs, user-friendly platforms, and relationship development incentives for highly engaged players can lead to a significant increase in all aspects of consumer behaviour. It also underscored that video-game engagement could enhance in-game purchases, consequently generating more revenue for developers.

Furthermore, the study contributes to eSports research by presenting a model of CeSE that predicts gamers' consumption behaviours. It calls for businesses to incorporate digital expertise in their strategies to explore emerging opportunities in the rapidly changing video game industry. (Amir Zaib Abbasi M. A., 2023).

Utilising the framework of the Uses and Gratifications theory and focusing on the concept of playful-consumption experiences, including role-projection, fantasy, escapism, enjoyment, sensory experiences, emotional involvement, and arousal. Also examines the effects of these experiences on game engagement and explores the consequences of engagement, such as continuance intentions, electronic word-of-mouth (eWOM), and online reviews. Playful consumption experiences, specifically enjoyment, sensory experiences, emotional involvement, and arousal, positively influence consumer engagement in e-sports games; Higher levels of engagement, in turn, lead to continuance intentions to play e-sports, positive eWOM, and online reviews. The game developers should focus on enhancing the emotional and sensory appeal of e-sports games to drive user engagement. Additionally, highlighting the importance of creating an engaging total customer experience in e-sports and emphasizes the value of customization and optimization to meet the individual needs of gamers. (Amir Zaib Abbasi N. A., 2023).

The peripheral elements, salience and mood modification, positively influence a gamer's subjective well-being. On the contrary, the core elements of withdrawal and conflict negatively influence a gamer's subjective well-being. The impacts of tolerance, relapse, and problems on well-being were found to be insignificant. Therefore, the elements associated with high engagement (peripheral) in gaming can enhance well-being, whereas problematic use (core) can negatively impact well-being. The theoretical contributions by examining these elements in a developing economy context and introducing a new conceptual model for video game addiction, from a practical standpoint, the findings could help video game developers create

games that promote subjective well-being and minimize the negative effects of addiction. (Amir Zaib Abbasi M. K., 2023).

However, despite the growing interest in video game consumption and its hedonic aspects, the multidimensional nature of this phenomenon remains relatively unexplored. Existing research often focuses on isolated dimensions of video game enjoyment, such as immersion, challenge, or social interaction, without considering the interplay between these factors. Consequently, a comprehensive understanding of the various dimensions that contribute to hedonic video game consumption is lacking.

Therefore, this thesis aims to fill this research gap by adopting a multidimensional outlook towards hedonic video game consumption. By examining the interrelationships between different dimensions of enjoyment, such as immersion, challenge, social interaction, and aesthetics, this study seeks to provide a holistic understanding of the factors that contribute to players' hedonic experiences. The findings of this research will not only contribute to the theoretical understanding of video game consumption but also offer practical implications for game developers, marketers, and policymakers.

In the subsequent chapters, this thesis will delve into the relevant theoretical frameworks, review existing literature on video game consumption and enjoyment, present the research methodology, analyse the data collected, and discuss the implications of the findings. By adopting a multidimensional perspective on hedonic video game consumption, this study aims to provide valuable insights into this evolving field and contribute to the advancement of consumer behaviour and entertainment research. The importance and application of this researched is discussed more in detail in future implication section.

1.2 **Research Gap**

In the emerging context of e-sports, specifically focusing on the popular game “Defence Of The Ancients 2” (DOTA2), there is a lack of comprehensive understanding regarding the multidimensional nature of gamers' hedonic experiences and how they influence the gamers' attitudes, intentions, and actual gameplay behaviours. The existing research has tended to view these hedonic experiences as unidimensional, neglecting to explore the diversity and individual impact of these experiences. Previous studies which do view emotional and experiential aspects of video game consumptions as multidimensional, are focused on a single game such as Player

Unknown's Battlegrounds (PUBG), and have neglected the biggest e-sports game of all time DOTA 2. Moreover, no previous study has researched on Pakistani population, helping Pakistani game developers and marketers to prosper in this entertainment industry. This paper, therefore, aims to unpack and assess the individual and combined influences of seven identified hedonic experiences: escapism, fantasy, role-projection, emotional involvement, enjoyment, arousal, and sensory experience, using the framework of Hedonic Consumption Theory and the Theory of Planned Behaviour. By doing so, this research intends to offer a more nuanced understanding of consumer behaviour within the e-sports context, enriching the extant literature and providing actionable insights for game developers and marketers.

The study also aims to identify the differential impacts of these hedonic experiences on the player's attitude toward the game, their intention to play, and actual gameplay behaviour. This understanding will allow for the development of more effectively tailored gaming experiences, thus meeting the diverse needs and preferences of the gaming community.

However, the applicability of these findings to other gaming contexts or to more utilitarian games, the potential changes in these relationships over time, and the impact of these experiences on other outcome variables like satisfaction, loyalty, and word-of-mouth remain as areas of further research. These limitations also form part of the research problem this study seeks to address.

1.3 Problem Statement

The videogame industry is experiencing a global surge, yet in Pakistan, several challenges remain. Pakistani game developers find themselves navigating in a murky landscape, unsure about what features to incorporate into their games, owing to a significant scarcity of research on the hedonic experiences of Pakistani gamers. This lack of understanding hampers their ability to meet the diversified needs and preferences of gamers, which are essential to the creation of successful games (Elizabeth C. Hirschman, 1982) (J. Joško Brakus, 2009).

Moreover, marketers face difficulties in devising strategies to effectively promote videogames in the Pakistani market. Without a deep understanding of the emotional and experiential aspects that resonate with the local gaming audience, they are unable to create compelling narratives or communicate the unique selling propositions of the games (Amir Zaib Abbasi D. H., 2019) (Lee Yu-Kang, 2014).

Notably, despite the growing popularity of Multiplayer Online Battle Arena (MOBA) games globally, Pakistan has yet to produce a successful MOBA game akin to “Defense of the Ancients 2” (DOTA 2), which holds the biggest e-sports event and has the biggest tournament price pool. The lack of comprehensive studies to understand the intricate dynamics of hedonic consumption in MOBA games poses a formidable challenge for local developers (Kuo M. S, 2015) (Juho Hamari N. H., 2017).

Lastly, the concept of gamification, which has been effectively used in various global contexts to motivate and engage employees, has not yet taken a firm hold in Pakistani workplaces. This gap points to a need for a thorough exploration of hedonic aspects that can be utilized to gamify work life, boosting employee motivation and productivity (Waqar Nadeem D. A., 2015), (Linda D. Hollebeek A. Z., 2022).

This research, therefore, aims to address these multifaceted issues by investigating the distinct hedonic experiences in the context of e-sports gaming in Pakistan. It seeks to provide valuable insights for game developers, marketers, and other stakeholders, and identify future research paths for the development of the gaming industry and the application of gamification in Pakistan.

1.4 Research Questions

There are several questions this study aims to answer. Following are the research questions of this study:

RQ1: Does videogame related emotional and experiential factors have an impact on players’ video gaming intent to play videogame?

RQ2: Does video gamers’ intent to play a videogame have an effect on their actual video gaming behaviour?

RQ3: What hedonic features Pakistani developers should focus on in adding in their MOBA games to attract more players?

RQ4: What aspects of video game marketers should focus on in while devising marketing strategy for MOBA games to attract players?

1.5 Research Objectives

RO1: To find out the relationship between videogame related emotional and experiential factors and video gaming intent.

RO2: To find out the relationship between video gamers' intent to play a videogame and their actual video gaming behaviour.

RO3: To find out the hedonic features Pakistani developers should focus on in adding in their MOBA games to attract more players.

RO4: To find out aspects of video game marketers should focus on in while devising marketing strategy for MOBA games to attract players.

1.6 Significance of the study

1.6.1 Theoretical Significance

The theoretical significance of this study lies in its profound exploration and contribution to the understanding of the multi-dimensional nature of hedonic experiences in the field of video gaming, drawing upon established constructs from the hedonic consumption theory and the theory of planned behaviour. This study will present an in-depth analysis and will provide an empirical evidence for the nuanced layers of hedonic experiences gamers encounter, thereby reinforcing and expanding the complexity of the hedonic consumption theory.

By identifying seven distinct subtypes of hedonic experiences – escapism, fantasy, role-projection, emotional involvement, enjoyment, arousal, and sensory experience – the study will add granularity to the discussion of how videogame players interact with, and derive pleasure from, gaming. Notably, the research findings will assess that hedonic experiences in gaming are unidimensional/ universally similar in their nature according to some previous assumptions, therefore advancing our understanding of the multifaceted hedonic experience in MOBA games.

Furthermore, the study will offer valuable insights into how different hedonic experiences variably influence user attitudes and subsequent behaviour. The differential impact of the identified hedonic subtypes on gamers' attitudes and behaviours marks an important contribution to the field. Specifically, the study will discover that which of the emotional and experiential aspects (escapism, fantasy, role-projection, emotional involvement, enjoyment,

arousal, and sensory experiences) of MOBA gaming are strong drivers of gamers' attitudes and which are not. This not only advances theory in this area, but also paves the way for more focused research on the influential hedonic experiences.

This research will also significantly extend the theory of planned behaviour (TPB) to the realm of online multiplayer gaming. By testing the effect of gamers' intention to play a videogame on players' video gaming behaviour, the study will validate whether TPB's is applicable to this emerging digital context. In doing so, the study augments the existing body of knowledge in TPB and opens new avenues for future research in similar digital contexts.

1.6.2 *Practical Significance*

The practical implications of this study are manifold and extend to various key stakeholders within the video gaming industry, including game developers, marketers, and policymakers, as well as to the broader field of workplace engagement through the application of gamification principles.

Firstly, the findings can offer invaluable insights to the developers of DOTA 2, one of the most popular multiplayer online battle arena (MOBA) games. By identifying the types of hedonic experiences that significantly influence gamers' attitudes and behaviours, DOTA 2 developers can refine their game design and policies to enhance these experiences. For example, by focusing on emotional involvement, enjoyment, arousal, and sensory experiences - aspects found to significantly influence attitudes and behaviours - developers can enhance gameplay, storylines, visuals, and sound effects to offer a more immersive, stimulating, and enjoyable gaming experience, thereby attracting more players and fostering greater player loyalty.

Secondly, the results of the study could serve as a roadmap for Pakistani MOBA game developers. As they understand the facets of hedonic experiences that matter to gamers, they can tailor their game features to cater to these aspects, thus ensuring the games they develop are well-received and successful in attracting a significant player base. By creating games that offer unique and engaging experiences across the identified dimensions, they can better position themselves in the competitive landscape of MOBA gaming.

Thirdly, marketers can utilize these findings to tailor their promotional campaigns more effectively. Understanding which aspects of MOBA games resonate with players can allow

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marketers to highlight these aspects in their marketing strategies, thereby capturing the attention of potential players and enticing them to try their games. The insights from this study can help those craft compelling narratives that emphasize the aspects of escapism, fantasy, emotional involvement, enjoyment, arousal, and sensory experiences, and thus drive consumer interest and engagement.

Lastly, these findings can be utilized beyond the realm of gaming, particularly in the arena of gamification in workplaces. Given the efficacy of gamification in motivating and engaging employees globally, Pakistani organizations can apply these principles to enhance their employee engagement and productivity. By introducing elements that evoke similar hedonic experiences to those found in gaming – such as challenges, rewards, and a sense of achievement – employers can create a more engaging and motivating work environment. Understanding the key hedonic aspects that drive engagement in gaming can guide the design of these gamified systems, thereby making the work experience more enjoyable and fulfilling for employees.

In conclusion, this study offers significant practical insights that can guide the development, marketing, and utilization of MOBA games, as well as the application of gamification principles in diverse contexts, driving engagement, and enhancing experiences.

Chapter 2

LITERATURE REVIEW

2.1 Review of Literature

2.1.1 *Escapism*

Escapism is one of the key dimensions of hedonic consumption that have been highlighted in prior research as a significant factor contributing to the overall video gaming experience (Christoph Klimmt, 2010). It refers to an individual's engagement in certain activities to divert themselves from apparent unpleasant realities and engage in an alternate world or scenario (Elizabeth C. Hirschman, 1982). Escapism in the context of video games often manifests as an immersive experience where the player feels detached from the real world and engrossed in the game (Katherine Bessière, 2007).

Consumer escapism theory implies that individuals engage in consumer behaviour as a means of escaping from reality and finding solace or fulfilment in material possessions or experiences. (Davide C. Orazi, 2023) Research suggests that the escapism offered by video games can provide a break from daily routines and offer a sense of relief from real-world pressures, leading to enhanced enjoyment and overall satisfaction with the gaming experience (Jeffrey G. Snodgrass M. G., 2014). In a study by (Nick Yee, 2006), escapism was found to be a key motivator for engagement in multiplayer online role-playing games. The players reported an appreciation for the alternate reality provided by these games, which allowed them to forget their everyday worries.

Further evidence comes from (Christian Montag, 2015) who investigated Internet Gaming Disorder (IGD) and found that escapism was one of the major predictors of IGD, emphasizing its potent influence on players' gaming behaviour. These findings indicate the critical role escapism plays in gaming, not just as an enriching factor, but also as a potential risk factor for overuse.

While escapism is generally associated with positive aspects of gaming experiences, some studies have shown that it can also be linked to negative outcomes. For instance, (Jeroen S. Lemmens, 2011) found that escapism was a significant predictor of pathological gaming among

adolescents, suggesting that the desire to escape real-world problems might lead to excessive gaming and related problems.

Despite these findings, the present research suggests that escapism does not significantly impact game-related intent and behaviour (Elizabeth A. Boyle, 2012). This indicates that there might be variations in how the dimension of escapism influences different aspects of gaming behaviour, emphasizing the need for further nuanced studies.

In conclusion, while the role of escapism in video gaming is acknowledged, its influence is multifaceted and not yet fully understood. Future research could further explore the relationship between escapism and different aspects of gaming to provide a more comprehensive understanding of its role in the video gaming context.

2.1.2 *Fantasy*

Fantasy in video gaming is a crucial aspect of the hedonic consumption experience, capturing the imaginative and immersive qualities that make gaming appealing (Linda D. Hollebeek A. Z., 2022). Within the broader academic discourse, the concept of fantasy in the video gaming context is closely intertwined with theories of escapism and immersive entertainment (Klimmt Christoph, 2009).

Many researchers have examined the role of fantasy in videogame enjoyment, proposing that the ability of games to transport players into fantastical realms constitutes a significant draw for many consumers (Ron Tamborini M. G., 2011). These fantastical elements, they argue, enhance players' immersion and contribute to the overall hedonic consumption experience. Fantasy has the power to engage players deeply, fostering identification with characters and facilitating more profound emotional engagement (Katherine Bessière, 2007).

However, the importance of fantasy in the hedonic consumption experience of video gaming can vary substantially across different game genres (Dominic Arsenault, 2009). For instance, the role of fantasy in role-playing games or strategy games, where world-building and imaginative immersion are paramount, might be more significant than in racing or sports games, where realism and tactical skill are often prioritized (Melissa L Lewis, 2008).

Fantasy's role in promoting positive gaming attitudes and behaviours has received mixed empirical support. (Linda D. Hollebeek A. Z., 2022) Suggest that while fantasy does contribute

to the overall hedonic experience, its impact on game-related attitude formation may be less significant compared to other factors like emotional involvement or sensory experience.

Interestingly, research shows that fantasy can serve not just as a driver for game play, but also as a lens through which players interpret and make sense of their gaming experiences. (Jeroen Jansz, 2005) Found that the degree of fantasy in a game could influence players' attitudes and interpretations of game-related violence.

In conclusion, while fantasy is a recognized component of the hedonic consumption experience in video gaming, its relative importance and the extent of its impact on game-related attitudes and behaviours can vary. Further research is needed to disentangle the nuances of fantasy's role across different gaming contexts (Lennart E. Nacke C. A., 2009).

2.1.3 Role Projection

Role-projection is a fundamental aspect of the gaming experience, allowing players to identify with and experience the roles of characters within the gaming universe (Harris, 2001). It functions as a subset of the hedonic consumption experience, which encompasses elements of escapism, fantasy, and emotional involvement among others. As a distinctive component of this hedonic experience, role-projection offers unique insights into the motivations and behaviours of gamers.

Scholars like (Calleja, 2007) argue that role-projection forms a significant part of a player's immersive experience in gaming environments. It allows for the exploration of virtual identities, offering gamers an opportunity to engage with alternate personas or avatars, effectively bridging the gap between their real-world identity and the in-game character they control.

Moreover, research by (Nick Yee, 2006) highlighted the psychosocial aspects of role-projection, suggesting that this phenomenon is more than just an experiential aspect of gaming. It can also act as a tool for personal growth and development, potentially allowing gamers to explore aspects of their personality in a controlled environment.

Role-projection in gaming has often been linked to the degree of character customization and player agency. According to (Asimina Vasalou, 2008), the more control players have over their

in-game characters, the more likely they are to project their identities onto these characters, thereby deepening the immersion and enjoyment derived from the game.

Contrarily, some studies suggest that role-projection might not significantly affect players' intent and behaviour in gaming contexts (Linda D. Hollebeek A. Z., 2020). These findings indicate a nuanced understanding of role-projection, suggesting that while it may enhance immersion and enjoyment for some players, it might not universally translate to higher engagement or gameplay intentions.

It is also important to consider the potential negative aspects of role-projection. (Klimmt Christoph, 2009) Caution about the potential risks of players becoming overly immersed in their virtual roles, leading to problematic gaming behaviour. This highlights the need for a balanced approach towards role-projection in game design and research.

In summary, while role-projection is a valuable construct in understanding the emotional and experiential aspects of video game consumption on video gamers, its impact on game-related intentions and behaviour appears to be complex and multifaceted, warranting further examination.

2.1.4 Emotional Involvement

Emotional involvement is a critical facet of the user experience in video games, recognized as a powerful factor in driving player engagement and consumption behaviours. This construct pertains to the depth and intensity of emotions that consumers associate with a particular product or experience (Morris B. Holbrook, 1982). Within the gaming industry, emotional involvement is crucial in establishing the relationship between players and their gaming experience (Rafael A. Calvo, 2014).

(Zaichkowsky, 1985) Defines involvement as a person's perceived relevance of an object based on inherent needs, values, and interests, highlighting the personal relevance of a product or activity. In video gaming, emotional involvement can be understood as a player's emotional connection to the game, their character, or the game's narrative (Richard M. Ryan C. S., 2006). This emotional connection can drive players to be more engaged and spend more time playing the game, and it may also influence their game-related attitudes and intentions (Peter Vorderer, 2004).

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Research shows that emotional involvement plays a significant role in the success of video games. For example, in a study of the popular game World of Warcraft, (Jeffrey G. Snodgrass M. G., 2011) found that emotional involvement led to deeper immersion and greater satisfaction, contributing to the game's stickiness. Similarly, Bowman and (Nicholas David Bowman, 2012) demonstrated that emotional involvement significantly impacts the enjoyment and continued play of violent video games.

Moreover, emotional involvement can also affect players' cognitive responses and purchasing behaviours within the game. In a study by (Juho Hamari J. T., 2014), it was found that emotional involvement was a critical factor driving the purchase of virtual goods.

In the light of these studies, it is clear that emotional involvement is a vital construct in understanding player engagement and consumption behaviours in video games. However, more research is needed to further explore the multi-faceted role of emotional involvement in different game genres, its relationship with other dimensions of the emotional and experiential consumption, and its influence on the overall player experience in video games.

2.1.5 *Enjoyment*

Enjoyment is recognized as a critical factor influencing player experiences in the context of video gaming (Peter Vorderer, 2004). Scholars argue that the primary motivation for videogame engagement is the intrinsic enjoyment and fun players derive from it (John L Sherry, 2006).

From a theoretical perspective, the construct of enjoyment has been examined within the framework of the **Uses and Gratifications Theory (UGT)** in media studies, which posits that media consumers actively seek out media sources that provide them with the most gratification, which often translates to enjoyment (Thomas E. Ruggiero, 2000). In the videogame context, (John L Sherry, 2006) affirmed that videogames offer numerous gratifications, including arousal, diversion, and social interaction, but the most universal was found to be enjoyment.

(Ron Tamborini P. S., 2006) Conveyed that enjoyment in video gaming is tied to a game's ability to challenge the player, thereby fostering an immersive experience that brings pleasure. Similarly, (Penelope Sweetser, 2005) in their "Game Flow" model, assert that player enjoyment is closely linked with factors such as concentration, challenge, skills, control, clear goals, feedback, immersion, and social interaction.

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Furthermore, enjoyment has been closely linked with the concept of 'flow', a mental state in which a person performing an activity is fully immersed in a sense of energized focus, full involvement, and enjoyment in the process (Csikszentmihalyi, 1990). The alignment between a player's skills and game's challenge level can induce flow, enhancing the overall enjoyment (Benjamin Ultan Cowley, 2008).

Research also shows that enjoyment has significant impacts on player behaviour. For instance, (Holin Lin, 2011) demonstrated that enjoyment is a strong determinant of continued use intention in online games. Enjoyment has also been seen to influence gamer loyalty (James Y.L. Thong, 2006).

However, the role of enjoyment in video gaming is complex and multifaceted. It may be influenced by various factors including game genre, game design elements, and individual player characteristics. Therefore, while the general consensus acknowledges the importance of enjoyment in video gaming, the nuanced understanding of this construct necessitates further exploration (Amir Zaib Abbasi D. H., 2019).

In summary, the literature provides substantial evidence that enjoyment is central to the videogame experience. However, as our understanding of videogames evolves, there remains a need to further explore and specify the ways in which enjoyment is derived and how it influences player behaviour.

2.1.6 Arousal

(Peter Vorderer, 2004) were among the early pioneers to explore the concept of arousal in the realm of media entertainment. They proposed that enjoyment, a crucial aspect of media consumption, is significantly influenced by factors such as arousal, identifying it as a key element that fuels engagement and immersion in entertainment activities, including video gaming. Their work underscores the importance of arousal in shaping the hedonic consumption experiences in interactive environments like video gaming.

The **General Agitation Model (GAM)**, developed by (Craig A Anderson, 2000), was one of the first theoretical frameworks to elucidate the role of arousal in videogame play. They found that arousal increases the intensity of dominant reactions and primes aggressive thoughts and behaviours. This model provided a baseline for understanding how arousal could impact players' experiences and behaviours.

Furthering this idea, in a study of arousal in the context of competitive online games, (J Matias Kivikangas, 2011) identified arousal as a pivotal psychological response, which influences a player's overall engagement and gaming performance.

Moreover, (Ron Tamborini N. D., 2010) investigated the role of arousal in the context of the "Uses and Gratification Theory". They found that individuals select specific games that can induce desired levels of arousal, implying that arousal might be a key factor in driving player preference and selection of games.

On the commercial side of gaming, (Juho Hamari N. H., 2017) found that arousal-inducing elements in games, such as those found in 'loot boxes', can positively influence players' willingness to spend money in-game. They suggested that the thrill associated with uncertain rewards, triggered by these elements, enhances the arousal experience, hence increasing the attractiveness of these in-game purchases.

Recent research by (Linda D. Hollebeek A. Z., 2022) has further solidified the importance of arousal in video gaming. In their study, they revealed that arousal, along with emotional involvement and enjoyment, plays a significant role in shaping the attitude and behaviour of gamers.

To conclude, arousal has emerged as a critical factor influencing the video gaming experience from multiple perspectives, from player engagement and performance to their spending behaviour. Despite this, our understanding of arousal in the context of video gaming is still evolving and there is much to uncover regarding how it affects different aspects of player experiences.

2.1.7 Sensory Experiences

The sensory experiences that players encounter in videogames contribute significantly to the overall hedonic consumption, forming a cornerstone of the user experience (UX). (Schmitt, 1999) introduced the concept of experiential marketing, where sensory experiences play a significant role, highlighting the importance of engaging consumers' senses to create a memorable encounter. In the context of videogames, this suggests a strong emphasis on sensory stimuli to foster an immersive experience.

Visual and auditory elements are primary sensory inputs in most video games. High-quality graphics and sound can significantly enhance the player's experience (Zhongyun Zhou, 2011). These elements aid in providing an immersive and realistic environment, contributing to the player's sense of being in the game world (Charlene Jennett, 2008). For instance, the visually stunning landscapes and meticulously detailed characters in games like "The Witcher 3" or "Final Fantasy XV" create a vibrant and captivating world for players (Frans Mäyrä, 2008).

Additionally, sound design is equally pivotal in enhancing sensory experiences. The auditory cues and soundtracks in games provide context, setting the emotional tone and helping to guide player actions (Mark Grimshaw, 2010). A study by (Lennart E. Nacke M. N., 2010) emphasized that sound design in video games can influence player experience and emotions significantly.

Moreover, haptic feedback technology has provided an additional layer of sensory experience in video gaming, stimulating the tactile sense. Research by (Jonathan Freeman, 1999) demonstrated that haptic feedback could enhance the enjoyment and immersion levels, providing a more holistic sensory experience.

In recent years, advancements in VR technology have allowed even more sensory engagement, creating truly immersive environments with visual, auditory, and haptic inputs (Alison McMahan, 2003). However, despite these advancements, it is worth noting that each player may perceive these sensory experiences differently, as player preferences and physiological factors play a significant role (Kari Kallinen, 2007).

In conclusion, sensory experiences are a critical component of the videogame experience, significantly contributing to the hedonic value derived from gameplay. As technology advances, further research is necessary to understand how these multi-sensory engagements shape player attitudes and behaviours towards videogames.

2.1.8 Video gaming Intent

The Theory of Planned Behaviour (TPB) has been frequently applied to investigate video gaming intent (Icek Ajzen, 1991). Within this theory, attitude refers to a player's overall appraisal of gaming, subjective norms represent the perceived social pressure to engage in gaming, and perceived behavioural control is the perceived ease or difficulty of gaming. These elements have been validated across various gaming contexts including online gaming (Lee

Doohwang, 2007), e-sports (Juho Hamari M. S., 2017), and PUBG (Khawaja Asjad Saeed, 2003).

Studies have found that individuals who hold positive attitudes towards gaming, who perceive that important others would approve of them gaming, and who believe they have control over their gaming are more likely to express a stronger intention to play videogames (Khawaja Asjad Saeed, 2003). Some research has also emphasized the impact of perceived enjoyment and its key role in shaping gamers' attitudes and consequently, gaming intentions (Hans van der Heijden, 2004).

The multidimensional perspective of hedonic consumption experiences is another facet that has shown significant influence on video gaming intent (Elizabeth C. Hirschman, 1982) (Linda D. Hollebeek A. Z., 2022; Linda D. Hollebeek A. Z., 2020). The dimensions include emotional involvement, enjoyment, arousal, and sensory experience, each providing a unique flavour to the gaming experience and thus influencing the intention to play (Linda D. Hollebeek A. Z., 2022).

Importantly, the hedonic experiences are noted to vary with game genre, suggesting that different genres might elicit different experiences and hence have varied influence on gaming intent (Dominic Arsenault, 2009). For instance, massively multiplayer online games (MMOGs) are more likely to elicit emotional involvement due to their immersive nature, compared to casual mobile games.

Lastly, demographic factors, such as age and gender, have been implicated in the formation of attitudes towards gaming and gaming intent (Kristen Lucas, 2004). For instance, males have been found to show higher videogame play intent compared to females, possibly due to gender socialization processes and the traditionally male-oriented gaming industry. Additionally, younger individuals were noted to have a higher propensity for video gaming, given their familiarity and comfort with digital technology.

In conclusion, video gaming intent is not a monolithic construct, but rather it appears to be influenced by an amalgam of psychological processes, hedonic experiences, and demographic factors.

2.1.9 Video gaming Behaviour

Understanding video gaming behaviour has been the focus of numerous academic studies due to the growing importance and popularity of the gaming industry (Juho Hamari A. M., 2018). Research varies greatly in the aspects explored, from the psychological motivations driving gameplay (Nick Yee, 2006) to the influence of social and cultural contexts (Adrienne Shaw, 2010).

(Nick Yee, 2006) explored the motivations for playing in multiplayer online games, mapping out three main components of gaming behaviour: achievement, social interaction, and immersion. Achievement refers to the desire to gain power, progress rapidly, and accumulate in-game symbols of wealth or status. Social interaction encompasses the desire to form meaningful relationships with other players, help others, or even manipulate them. Immersion encompasses the desire to escape from real-life, role-play with others, customize characters, and discover hidden game areas. This taxonomy provides a comprehensive framework for understanding player motivations, a crucial element in predicting gaming behaviour.

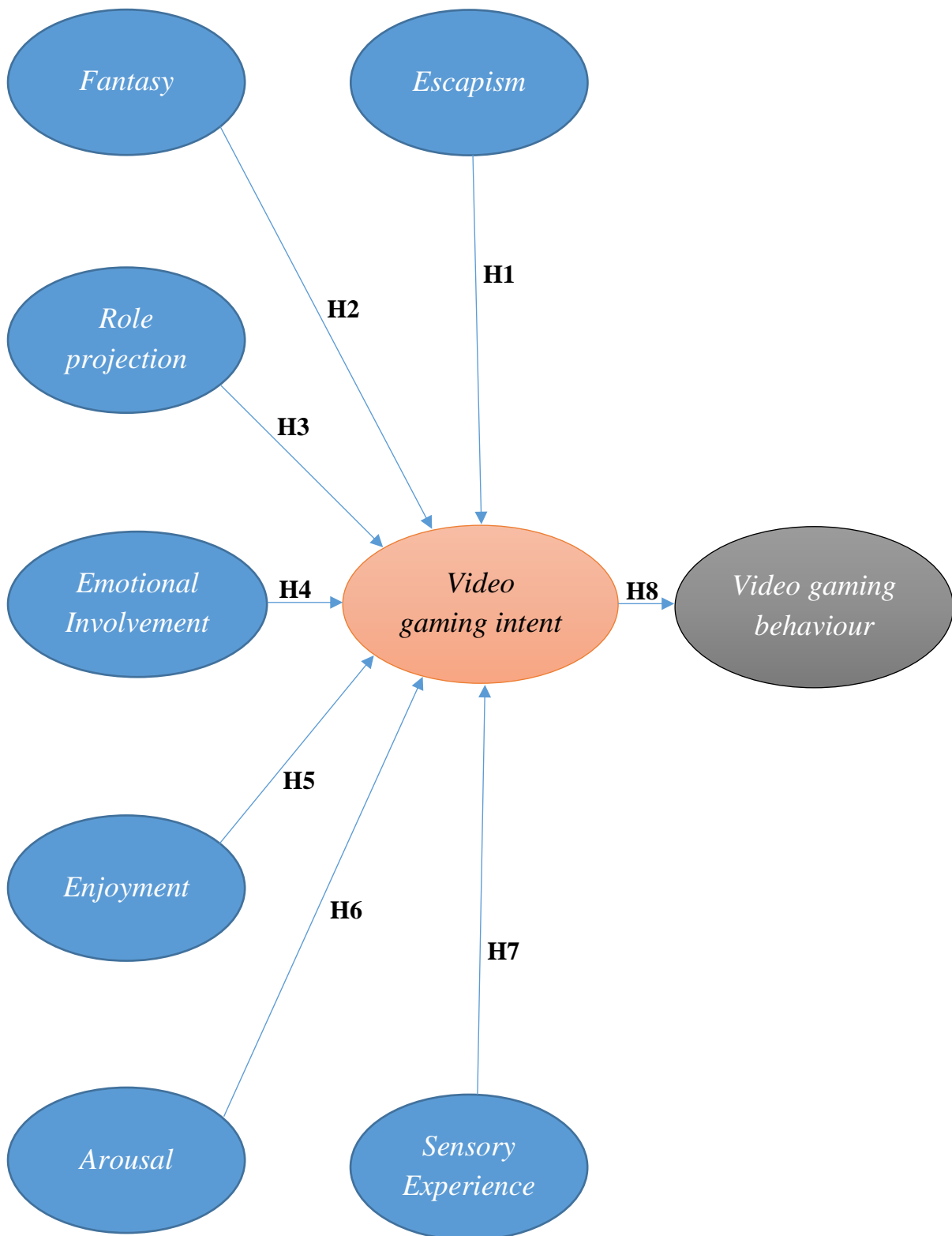
Furthermore, the role of social factors has been highlighted by (Adrienne Shaw, 2010), who investigated how culture and society shape and are shaped by video gaming behaviour. The study pointed out the impact of societal norms and expectations on gaming behaviour.

In a different approach, (Andrew K. Przybylski C. S., 2010) investigated the effects of perceived autonomy and competence in videogame play on wellbeing. Their findings indicate that the satisfaction of basic psychological needs while playing videogames predicts self-reported measures of wellbeing, giving insight into how the satisfaction of in-game goals can influence players' overall behaviour.

Finally, the **theory of planned behaviour**, as applied to videogame behaviour, suggests that subjective norms, attitude towards the behaviour, and perceived behavioural control are key determinants of a player's intention to play a game (Christopher J Armitage, 2010). This perspective provides a solid understanding of how intention - and ultimately behaviour - can be shaped in the videogame context.

To conclude, research into video gaming behaviour has approached the subject from multiple angles, from intrinsic motivations to societal influences, all of which contribute to a nuanced understanding of why and how people play videogames.

2.2 Conceptual Framework



2.3 Research Hypothesis

Bases on theoretical deductions from the literature, we have a total of 8 hypothesis in this study. All the hypothesis are mentioned below:

H1: Videogame related escapism has a positive impact on video gaming intent of players.

H2: Videogame related fantasy has a positive impact on video gaming intent of players.

H3: Videogame related role projection has a positive impact on video gaming intent of players.

H4: Videogame related emotional involvement has a positive impact on video gaming intent of players.

H5: Videogame related enjoyment has a positive impact on video gaming intent of players.

H6: Videogame related arousal has a positive impact on video gaming intent of players.

H7: Videogame related sensory experience has a positive impact on video gaming intent of players.

H8: Video gamers' intent to play a videogame has a positive effect on their video gaming behaviour.

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is the methodical, theoretical examination of the techniques used in a specific study field. It encompasses a theoretical critique of the set of methods and concepts tied to a particular academic domain. In essence, it includes systematically collecting, analysing, and interpreting data.

In the words of renowned scholar John W. Creswell, "Research methodologies are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation." (John W. Creswell, 2009)

3.2 Research Approach

The research approach in this study is explanatory, based on its objective to develop a comprehensive theoretical model that explicates consumers' game-related attitude formation and subsequent behaviours. The research employs the principles of various theory i.e **consumer escapism theory, hedonic consumption theory, gratification theory, general agitation theory and theory of planned behaviour**, to better understand and explain the intricate relationships among various elements in the video gaming context.

Central to this research approach is the exploration and differentiation of hedonic experiences within the gaming environment. The research takes a multi-dimensional perspective on the hedonic consumption experience by identifying seven key sub-types of these experiences: escapism, fantasy, role-projection, emotional involvement, enjoyment, arousal, and sensory experience. The goal of this approach is to delineate how each of these unique experiences impacts the consumer's game-related attitudes and behaviours, instead of treating the hedonic consumption experience as a singular, homogeneous factor.

Additionally, the study investigates the effects of these different hedonic experiences on players' intent to play a videogame on their video gaming behaviour.

Through this approach, the research not only provides a broader understanding of the hedonic gaming experience, but it also explores the specific influence of each individual experience on overall gaming attitudes and behaviours.

3.3 Research Design

To execute this approach, the type of research method is quantitative, as it involves the collection and analysis of numerical data. The researchers developed hypotheses and employed a model to assess relationships between different variables, including various hedonic experiences and their impact on game-related attitudes and behaviours. The use of a cross-sectional survey, as outlined in the limitations section, further underscores the quantitative nature of the research.

A cross-sectional study approach is employed to collect data at one specific point in time. This data is then quantitatively analysed on PLS-SEM to test the hypothesis and answer the research questions, drawing conclusions about the relationships between the different hedonic consumption experiences and their impact on game-related attitudes and behaviours.

This approach further extends by examining the influence of game-related attitudes, subjective norms, and perceived behavioural control on gamers' intent to continue playing a specific videogame, in alignment with the theory of planned behaviour.

Overall, this explanatory research approach, with its multi-dimensional focus and quantitative analysis, provides a comprehensive and nuanced understanding of consumers' hedonic experiences in the video gaming context. This ultimately contributes to the theoretical and practical knowledge in the field by illustrating how these experiences shape and influence game-related attitudes and behaviours.

3.4 Time Horizon

The time horizon refers to the duration over which the research study will unfold. It plays a pivotal role in the research methodology as it shapes the nature of the study to be conducted (Andrii Babii, 2020). The data for the current investigation was assembled through a cross-sectional research method, meaning it was collected at a single point in time. The data pertinent to the study's variables was gathered in a span of two months, from April to May 2023. This specific time interval was deemed appropriate as it provided the researcher with sufficient time

to disseminate the questionnaire among the selected demographic and to accumulate the necessary data for the study.

3.5 Unit of Analysis

The target population for this study is Pakistani DOTA2 players who are active players. Active players mean players who have recently (within a month) played DOTA2. The research doesn't target any specific age group as the age group of DOTA2 players are very variable. According to insights from DOTA2 Demographic Survey the age of DOTA2 player can be as low as 10-13 years old (Esports, 2021). According to sources on Reddit DOTA2 player can be up to 58 years old. Although the age group is very variable the age group of our sample is 15 – 35 y/o.

3.6 Target Population

The target population refers to the collection of individuals whom the research or intervention is designed to study and derive insights from. In the context of a cost-effectiveness analysis, it's crucial to distinctly articulate the attributes of the main target population as well as any relevant subgroups (Louise Barnsbee, 2018). The target population is Pakistani DOTA2 active players available on in game chat rooms, Pakistani Discord DOTA2 Channels.

3.7 Sample Size

In insights Valve discloses, DOTA2 only states the number of active players of the whole regions. In our case the no of players in South-East Asia was known, but the number of active DOTA2 players in Pakistan was unknown. A formal email was sent to Valve team in hope to get this invaluable insight, despondently there was no reply from Valve team. Hence the population size was unknown, and the number of questions in the survey questionnaire was 25, the sample size is calculated by multiplying number of question by 10. Therefore, the sample size required was of 250. We considered sample of 260 respondents in this study.

3.8 Sampling Technique

Sampling refers to the process of selecting a subset from a predetermined sampling frame or the entire population. This technique is utilized to draw conclusions about a larger population or to form generalizations pertaining to an existing theory (Hamed Taherdoost, 2016). The sampling technique used in this study is a type of non-probability sampling called purposive sampling, as the surveys were floated through Pakistani DOTA2 players Discord channels and

in game chatrooms, and were closely administrated. The reason for using non-probability sampling is because, firstly, the population size is unknown and the sample is not fixed or exclusive, and secondly, due to time restriction of this study non-probability sampling is more feasible.

3.9 Research Instrument

Research instruments are tools employed to gather and organize information pertinent to your research study, and a wide variety of options are available for selection (David Wilkinson, 2003). The examples of research instruments include Interviews, Observations, Tests and Assessments, Experimental Equipment, Scales and Meters, Secondary Data Analysis and Digital Analytics Tools. In this study we used digital surveys as primary research instrument. All variables in survey are measured based on Likert Scale containing five points. 5 corresponds to “Strongly Agree”, 4 corresponds to “Agree”, 3 corresponds to “Neutral”, 2 corresponds to “Disagree” and lastly, 1 corresponds to “Strongly Disagree”.

3.10 Data Collection Procedure

The method of gathering information for this investigation, known as the data collection process, was undertaken as described by (Mimansha Patel, 2019). The primary data was procured through a survey conducted on a sample of 260 Pakistani DOTA2 active players who are present on Pakistani DOTA2 Discord channels or in-game Pakistani chatrooms. This survey was implemented over a two-month span, from April 2023 to May 2023, using an adapted questionnaire. Most of the 260 questionnaires disseminated were distributed on Discord channels and in-game chatrooms. However, to maximize participation, DOTA2 hero skin giveaways were also arranged. The participants were given the flexibility of filling the survey on whatever time is most suitable to them.

3.11 Data Analysis Techniques

The method employed to inspect the collected information is known as the data analysis technique. Data gathered from this study was evaluated using Reliability Analysis, Descriptive Frequencies, Correlation Analysis, and Regression Analysis using PLS SEM to investigate key emotional and experiential aspects i.e. escapism, fantasy, role-projection, emotional involvement, enjoyment, arousal and sensory experiences, and understand how these distinct

experiences contribute to gamers' video gaming intentions, and actual behaviour in the gaming context.

3.12 Research Ethics

Research ethics are essential guidelines that govern the conduct of research to ensure integrity, quality, and respect for all participants involved. These principles are critical for maintaining public trust in research activities and outcomes (David B. Resnik, 2015).

In our study, we were committed to adhering to these high ethical standards. We followed ethical guidelines laid out by the American Psychological Association (APA, 2017), which emphasize respect for the dignity and rights of research participants, concern for their welfare, and responsibility to society.

Before conducting the survey, we provided all participants with a clear and comprehensive explanation of the study's purpose, procedures, potential risks and benefits, and their rights as participants (Natasha Mack, 20015). This included explaining that their participation was completely voluntary, and they had the right to withdraw at any point without any negative consequences. This aligns with the principle of informed consent, a cornerstone of ethical research (Mark Israel, 2006).

We prioritized the privacy and confidentiality of the participants throughout the research process. Personal identifying information was securely stored, and any data shared in reports or publications were carefully anonymized to prevent identification of individual participants. This is consistent with ethical principles relating to confidentiality and privacy (Mark NK Saunders, 2019).

By adhering to these ethical guidelines, we aimed to ensure our research not only contributed valuable insights to the field, but also respected the rights and dignity of all those who participated.

Chapter 4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

Data Analysis and Findings is a section that presents the processes of deciphering and interpreting the collected data, as well as the outcomes or results derived from that analysis. Data Analysis and Findings part of the research involves interpreting the data and presenting the results, providing the evidence needed to draw conclusions, make inferences, or formulate new theories or hypothesis. It is a critical step in the research process, as it allows researchers to make sense of the collected data and offer a meaningful contribution to the body of knowledge in their field.

It's crucial in many quantitative research approaches, especially in structural equation modeling (SEM), a multivariate statistical framework that allows researchers to test complex theoretical models. SEM consists of two parts: the 'Measurement Model' and the 'Structural Model'. The measurement model represents relationships between observed measures and latent constructs, while the structural model specifies causal relationships among the latent constructs (Kenneth A. Bollen, 1989) (Kline, 2015).

4.2 Measurement Model

A measurement model is a statistical model used to assess the quality and validity of the measurement instruments or scales used in a study (Barbara M. Byrne, 2013). It aims to evaluate the extent to which the observed variables adequately represent the underlying constructs or concepts of interest. Measurement models are commonly employed in fields such as psychology, social sciences, and marketing research to ensure the reliability and validity of the data collected. They help researchers assess the extent to which the observed variables accurately measure the latent constructs they are intended to represent.

4.2.1 Descriptive Frequencies

The survey employed diverse data categories to facilitate comprehensive analysis and enhance the understanding of outcomes. The significance of such classification was acknowledged as it facilitated a detailed interpretation of the study results. The demographic section of the survey encompassed several subdivisions, encompassing aspects like gender, age, educational status,

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country, gaming location, and approximate number of hours DOTA2 played daily. To gather a broad spectrum of viewpoints and characteristics from the participants, the survey incorporated these demographic details:

| Demographics | | Frequencies | Percentages | Cumulative Percentage |
|---------------------|-------------------|--------------------|--------------------|------------------------------|
| Gender | Female | 14 | 5.4 | 5.4 |
| | Male | 244 | 93.8 | 99.2 |
| | Other | 2 | 0.8 | 100 |
| Age | 15-20 | 44 | 8.5 | 8.5 |
| | 21-25 | 144 | 55.4 | 63.9 |
| | 26-30 | 88 | 33.8 | 97.7 |
| | 31-35 | 6 | 2.3 | 100 |
| | 35+ | 0 | 0 | 100 |
| Educational Status | School | 0 | 0 | 0 |
| | College | 88 | 8.5 | 8.5 |
| | Undergraduate | 154 | 59.2 | 67.7 |
| | Postgraduate | 82 | 31.5 | 99.2 |
| | Doctorate | 2 | 0.8 | 100 |
| Country | Pakistan | 258 | 99.2 | 99.2 |
| | Other | 2 | 0.8 | 100 |
| Gaming Location | Home | 182 | 70 | 70 |
| | Gaming Zone | 62 | 23.8 | 93.8 |
| | Friends Place | 10 | 3.8 | 97.6 |
| | Office | 4 | 1.5 | 99.1 |
| | Other | 2 | 0.8 | 100 |
| Daily Play hours | 0.5 hrs - 1 hr | 6 | 2.3 | 2.3 |
| | 1 hr - 1.5 hrs | 30 | 11.5 | 13.8 |
| | 1.5 hrs - 2 hrs | 108 | 41.5 | 55.3 |
| | 2 hrs - 2.5 hrs | 78 | 30 | 85.3 |
| | more than 2.5 hrs | 38 | 14.6 | 100 |

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According to the results show in table above, out of 260 respondents, 14 (5.4%) were female, 244 (93.8%) were male and 2 (0.8%) belonged to other gender. Out of 260 respondents, 44 (8.5%) were from age group 15-20, 144 (55.4%) were from age group 21-25, 88 (33.8%) were from age group 26-30, 6 (2.3%) were from the age group 31-35, and none from age group 35+. Out of 260 respondents, none studied in school, 88 (8.5%) studied in college, 154 (59.2%) studied in undergraduate program, 82 (31.5%) studied in postgraduate program and 2 (0.8%) studied in doctorate program. Out of 260 respondents, 258 (99.2%) were from Pakistan and 2 (0.8%) were from other country. Out of 260 respondents, 182 (70%) play DOTA2 at their homes, 62 (23.8%) play DOTA2 at gaming zones, 10 (3.8%) play DOTA2 at their friend's homes, 182 (70%) play DOTA2 at their homes, 4 (1.5%) play DOTA2 at their offices, and 2 (0.8%) play DOTA2 at other places. Out of 260 respondents, 6 (2.3%) play DOTA2 for 0.5 hrs – 1 hr daily, 30 (11.5%) play DOTA2 for 1 hr – 1.5 hrs daily, 108 (41.5%) play DOTA2 for 1.5 hrs – 2 hrs daily, 78 (30%) play DOTA2 for 2 hrs – 2.5 hrs daily, and 38 (14.6%) play DOTA2 for more than 2.5 hrs.

Note that all the data above is taken from responses on the survey by respondents who were fine with their information analysed and presented. The rights and consent of the respondents was our top priority.

4.2.2 Reliability Analysis

In the current research, we conducted a reliability analysis to gauge the validity and precision of the data amassed from the questionnaire. The objective was to verify whether the data obtained was dependable enough for subsequent analysis and if the items on the questionnaire consistently evaluated the pertinent components. The use of reliability analysis scores is a common method to determine the reliability of both the questionnaire and the participants' responses. Statistical procedures to check internal validity, including Cronbach's alpha and, were used during the examination to procure the reliability score. A higher value of Cronbach's alpha signifies greater reliability and injects more confidence in the measurement instrument employed for data collection. A Cronbach's alpha value exceeding 0.7 is generally regarded as good, signifying the reliability and trustworthiness of the measurement instrument.

Here are the results of the reliability analysis conducted on the responses to the survey utilized for data analysis in this research:

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| Variable | Cronbach's alpha | No. of Item |
|-------------------------------|------------------|-------------|
| Escapism | 0.707 | 3 |
| Fantasy | 0.710 | 3 |
| Role Projection | 0.726 | 3 |
| Emotional Involvement | 0.898 | 3 |
| Enjoyment | 0.923 | 3 |
| Arousal | 0.901 | 3 |
| Sensory Experiences | 0.546 | 3 |
| Video Gaming Intent | 0.806 | 2 |
| Video Gaming Behaviour | 0.627 | 2 |
| Collective Reliability | 0.760 | 25 |

In order to validate the consistency and reliability of the collected data, the study computed reliability coefficients for the variables tested. Specifically, it was reported that the reliabilities of Escapism, Fantasy, Role Projection, Emotional Involvement, Enjoyment, Arousal, Sensory Experiences, Video Gaming Intent and Video Gaming Behaviour were 0.707, 0.710, 0.726, 0.898, 0.923, 0.901, 0.546, 0.806 and 0.627 respectively. These coefficients were obtained using Cronbach's Alpha, a measure that evaluates the internal consistency or the extent of interrelatedness among the different elements of each variable. The derived Cronbach's Alpha values in this case (0.707, 0.710, 0.726, 0.898, 0.923, 0.901, 0.546, 0.806 and 0.627) although not all item are above 0.7 because the nature of the questions, but Cronbach's Alpha for assessing the overall reliability of the entire questionnaire, generating a score of 0.760. This outcome surpasses the accepted benchmark level of 0.7, indicating that the entire questionnaire possesses an acceptable level of reliability. The high reliability coefficients for both the individual variables and the complete questionnaire provide support for the notion that the data was collected in a reliable and consistent manner.

4.2.3 Outer Loadings

The higher the Composite Reliability (CR), the higher the will be reliability level. CR greater than or equal to 0.6 is acceptable (Claes Fornell, 1981). CR value that is greater than or equal to 0.7 is acceptable (Joseph F. Hair Jr G. T., 2014). Average Variance Extracted (AVE) value greater than or equal to 0.5 is acceptable (Claes Fornell, 1981).

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| Variables | Items | Loadings | Composite Reliability | Avg Variance Extracted |
|-------------------------------|--------------|-----------------|------------------------------|-------------------------------|
| Escapism | Esc1 | 0.749 | 0.767 | 0.524 |
| | Esc2 | 0.760 | | |
| | Esc3 | 0.659 | | |
| Fantasy | Fan1 | 0.563 | 0.769 | 0.540 |
| | Fan2 | 0.957 | | |
| | Fan3 | 0.622 | | |
| Role Projection | RP1 | 0.938 | 0.863 | 0.691 |
| | RP2 | 0.522 | | |
| | RP3 | 0.959 | | |
| Emotional Involvement | EI1 | 0.930 | 0.937 | 0.832 |
| | EI2 | 0.860 | | |
| | EI3 | 0.945 | | |
| Enjoyment | Enj1 | 0.879 | 0.951 | 0.868 |
| | Enj2 | 0.948 | | |
| | Enj3 | 0.964 | | |
| Arousal | Ars1 | 0.805 | 0.939 | 0.838 |
| | Ars2 | 0.966 | | |
| | Ars3 | 0.966 | | |
| Sensory Experiences | SE1 | 0.940 | 0.803 | 0.590 |
| | SE2 | 0.788 | | |
| | SE3 | 0.514 | | |
| Video Gaming Intent | VGI1 | 0.910 | 0.912 | 0.838 |
| | VGI2 | 0.921 | | |
| Video Gaming Behaviour | VGB1 | 0.991 | 0.794 | 0.672 |
| | VGB2 | 0.601 | | |

The items in the measurement model exhibit a strong association with their respective latent constructs, as evidenced by the outer loading values exceeding 0.5. Furthermore, the indicators reliably measure the underlying constructs, as indicated by the average variance extracted (AVE) values surpassing 0.5. Additionally, the composite reliability (CR) values, which also exceed 0.5, suggest that each variable demonstrates robust internal consistency and strong correlation.

4.2.4 *Discriminant Validity Analysis*

Discriminant validity, also known as The Heterotrait-Monotrait (HTMT) ratio, refers to the extent to which a construct is distinct and not correlated with other constructs that it theoretically should not be related to (Brown, 2006). This form of validity is a part of construct validity, and it's essential for assessing the results of any study or research. It ensures that a measure does not reflect other variables or constructs than the one it is intended to measure. When a construct possesses discriminant validity, it confirms the statistical independence of the construct from other constructs, therefore solidifying the uniqueness of the construct in the study (Claes Fornell, 1981).

| | Esc | Fan | RP | EI | Enj | Ars | SE | VGI | VGB |
|------------|------------|------------|-----------|-----------|------------|------------|-----------|------------|------------|
| Esc | | | | | | | | | |
| Fan | 0.741 | | | | | | | | |
| RP | 0.874 | 0.892 | | | | | | | |
| EI | 0.485 | 0.813 | 0.633 | | | | | | |
| Enj | 0.599 | 0.899 | 0.572 | 0.844 | | | | | |
| Ars | 0.564 | 0.801 | 0.678 | 0.897 | 0.887 | | | | |
| SE | 0.657 | 0.832 | 0.801 | 0.854 | 0.765 | 0.862 | | | |
| VGI | 0.551 | 0.861 | 0.533 | 0.824 | 0.899 | 0.891 | 0.635 | | |
| VGB | 0.824 | 0.810 | 0.017 | 0.816 | 0.458 | 0.860 | 0.869 | 0.805 | |

Our study's Heterotrait-Monotrait (HTMT) value analysis clearly shows that the variables are below the 0.85 threshold. This indicates that the metrics used for the variables evaluation are well differentiated and show limited overlap. As a result, we can infer that the measures are capturing unique data related to the multiple facets of the constructs we are studying. This outcome further bolsters the idea that our research is providing an accurate examination of the different dimensions related to the constructs being examined.

4.2.5 Quality Criteria

R Square:

The R-squared value, also known as the coefficient of determination, is a statistical measure used in regression analysis. It represents the proportion of the variance in the dependent variable that is predictable from the independent variables. In other words, it indicates how closely the data fit the regression model (Julian J. Faraway, 2002).

The R-squared value ranges from 0 to 1. An R-squared of 100% denotes that all changes in the dependent variable are entirely explained by changes in the independent variables. On the other hand, an R-squared of 0% implies that the independent variables explain none of the variability of the response data around its mean. It's essential to note, however, that a higher R-squared does not always indicate a better model fit. For instance, adding more variables to a model will typically increase the R-squared value, but it may not necessarily improve the model (Gareth James, 2013).

When evaluating model quality, the R-squared value is one of many criteria to consider. While it provides insight into the explanatory power of the model, other metrics like the adjusted R-squared is also important to take into account, particularly when comparing different models or dealing with multiple predictors (Richard McElreath, 2020).

| | R-square | R-square adjusted |
|------------|-----------------|--------------------------|
| VGI | 0.876 | 0.872 |
| VGB | 0.436 | 0.434 |

The mediator variable, "Video Gaming Intent" has an R-squared value of 0.876. This demonstrates a substantial link between this variable and others, suggesting a moderate level of interrelation between the mediator variable and the other variables (Escapism, Fantasy, Role Projection, Emotional Involvement, Enjoyment, Arousal and Sensory Experiences) involved.

In terms of the dependent variable "Video Gaming Behaviour" it possesses an R-squared value of 0.436. This value represents the degree of correlation between the dependent variable and other variables, suggesting a moderate level of connection between the dependent variable and the other factors in play.

F Square:

F square is a measure used to evaluate the effect size in the context of structural equation modeling. The F Square value is calculated to understand the relative impact of a predictor variable on an endogenous latent variable (Joseph F. Hair Jr G. T., 2017).

Effect size is important in interpreting the substantive significance of an explanatory variable beyond its statistical significance. F square is an indicator of the magnitude of the effect that an exogenous latent variable has on an endogenous latent variable. The values for F Square of 0.02, 0.15, and 0.35 are termed as small, medium, and large effect sizes, respectively (Jacob Cohen, 1988).

In terms of quality criteria, F Square is an important factor because it provides an understanding of the relative importance of each construct or variable in explaining the variance in the dependent or outcome variables. By determining the effect size, researchers can identify the most influential variables in their models, which can provide valuable insights for theory development and practical implications (Joseph F. Hair Jr G. T., 2017).

| | F Square |
|---|-----------------|
| Escapism → Video Gaming Behaviour | 0.031 |
| Fantasy → Video Gaming Behaviour | 0.281 |
| Role Projection → Video Gaming Behaviour | 0.161 |
| Emotional Involvement → Video Gaming Behaviour | 0.051 |
| Enjoyment → Video Gaming Behaviour | 0.324 |
| Arousal → Video Gaming Behaviour | 0.008 |
| Sensory Experiences → Video Gaming Behaviour | 0.000 |
| Video Gaming Intent → Video Gaming Behaviour | 0.773 |

Here the results shown in the table above exhibit that value of F Square of relation between Escapism and Video Gaming Behaviour is 0.031. This tells us that videogame related Escapism has small effect size on player’s Video Gaming Behaviour as it is greater than the benchmark value of 0.02 set by Jacob.

The results also illustrate that the videogame related Fantasy has a medium sized effect on player’s Video Gaming Behaviour as the F Square value is 0.281 which is larger than benchmark of 0.15 for the medium level effect.

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The relation between videogame related role projection and player's Video Gaming Behaviour have F square value of 0.161 as indicated in the table, which conveys that videogame related Role Projection has a medium sized effect on player's Video Gaming Behaviour as the F Square value is higher than 0.15 but lower than 0.35.

As the table presents the value of relation between videogame related emotional involvement and player's Video Gaming Behaviour is 0.051. Since the effect size of emotional involvement on player's Video Gaming Behaviour is greater than 0.02 and less than 0.15, the effect size is small.

The F Square value of relation between Enjoyment from video gaming and player's Video Gaming Behaviour is 0.324, as shown in the table, the effect size is medium sized effect as it is greater than 0.15 but less than 0.35. Note that the effect size of Enjoyment from video gaming is very closer to large effect size.

Arousal from video gaming and sensory experiences have no effect level on player's Video Gaming Behaviour as the both S Square values of Arousal from video gaming and sensory experiences are less than 0.02.

The player's Video Gaming Intent has large effect size on player's Video Gaming Behaviour as the S Square value of their relation is 0.773 which is quite greater than benchmark of 0.35.

4.2.6 Collinearity Statistics (VIF)

Collinearity statistics refer to a set of metrics that are used to identify the existence and severity of multicollinearity in a regression analysis. Multicollinearity is a statistical phenomenon where two or more predictor variables in a multiple regression model are highly correlated. If these predictor variables are indeed highly correlated, it can make it difficult to determine the effect of each predictor variable on the dependent variable separately (Robert M. O'Brien, 2007).

One common collinearity statistic is the Variance Inflation Factor (VIF), which measures the inflation in the variances of the estimated regression coefficients due to multicollinearity. A VIF value of 1 indicates no multicollinearity, whereas a VIF greater than 1 suggests the presence of multicollinearity. Values above 5 or 10 are often considered indicating high multicollinearity (Joseph F. Hair, 1995).

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Another important statistic is the Tolerance, which is simply the reciprocal of the VIF. It measures the influence of one independent variable on all other independent variables; the lower the tolerance value, the higher the degree of collinearity (Menard, 1995).

Collinearity statistics are vital in regression analysis because multicollinearity can affect the stability and interpretability of the regression coefficients, leading to potentially misleading results.

| Items | VIF |
|--------------|------------|
| Esc1 | 1.416 |
| Esc2 | 3.711 |
| Esc3 | 3.100 |
| Fan1 | 1.048 |
| Fan2 | 1.247 |
| Fan3 | 1.269 |
| RP1 | 2.828 |
| RP2 | 1.114 |
| RP3 | 2.822 |
| EI1 | 4.48 |
| EI2 | 2.009 |
| EI3 | 4.093 |
| Enj1 | 2.312 |
| Enj2 | 4.166 |
| Enj3 | 4.424 |
| Ars1 | 1.685 |
| Ars2 | 4.750 |
| Ars3 | 4.707 |
| SE1 | 1.621 |
| SE2 | 1.476 |
| SE3 | 1.122 |
| VGI1 | 1.840 |
| VGI2 | 1.840 |
| VGB1 | 1.005 |
| VGB2 | 1.005 |

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Since the values of Variance Inflation Factor (VIF) of all the variables items are below the threshold of 5, as shown in the table, this means there is less collinearity among the variables and the accuracy and stability regression model, and also reliable and interpretable regression results.

4.2.7 Correlation Analysis

Correlation analysis is a statistical technique that determines the strength and direction of the relationship among two or more variables. It assesses how changes in one variable are linked to changes in another. The comprehension of the nature and extent of the relationship between variables via correlation analysis can provide valuable information about trends, dependencies, and potential predictive capacity. The relationship's strength and direction are represented by correlation coefficients. The most commonly used correlation coefficient is the Pearson correlation coefficient, represented as "r". A value of +1 represents an ideal positive correlation, while a value of -1 denotes a perfect negative correlation, and a value of 0 means there is no relationship. The Pearson correlation coefficient can range from -1 to +1. A positive correlation implies that when one variable increases, the other typically increases as well, whereas a negative correlation implies that when one variable increases, the other typically decreases. The results of the correlation analysis are as follows:

| | Esc | Fan | RP | EI | Enj | Ars | SE | VGI | VGB |
|------------|------------|------------|-----------|-----------|------------|------------|-----------|------------|------------|
| Esc | 1.000 | | | | | | | | |
| Fan | 0.423 | 1.000 | | | | | | | |
| RP | 0.468 | 0.766 | 1.000 | | | | | | |
| EI | 0.477 | 0.848 | 0.579 | 1.000 | | | | | |
| Enj | 0.662 | 0.843 | 0.636 | 0.860 | 1.000 | | | | |
| Ars | 0.638 | 0.810 | 0.734 | 0.899 | 0.903 | 1.000 | | | |
| SE | 0.487 | 0.665 | 0.632 | 0.647 | 0.593 | 0.691 | 1.000 | | |
| VGI | 0.593 | 0.830 | 0.546 | 0.785 | 0.913 | 0.797 | 0.549 | 1.000 | |
| VGB | 0.371 | 0.606 | 0.45 | 0.746 | 0.609 | 0.655 | 0.351 | 0.660 | 1.000 |

4.3 Structural Equation Model (SEM)

Structural Equation Modeling (SEM) is a broad category of multivariate statistical modeling methods. It comprises a combination of several statistical methods such as factor analysis, path analysis, and regression. This technique permits the simultaneous examination of multiple

relationships among different variables. SEM has a potential advantage over other techniques as it allows researchers to examine a series of dependence relationships concurrently and can model complex relationships among variables (Kline, 2015).

In the SEM framework, observed variables are typically treated as reflective of one or more underlying 'latent' constructs. Latent variables, also known as factors or constructs, are not directly observed but are inferred from other variables that are observed and directly measured. These latent variables, or factors, are typically represented by multiple observed variables. For example, in psychology, a construct like 'intelligence' cannot be directly measured, but can be inferred from various measurable variables like scores on an IQ test, school grades, etc. (Kenneth A. Bollen, 1989).

SEM has the capacity to evaluate the measurement error, a feature not available in other less sophisticated analytical procedures. This makes it possible to get a more accurate estimate of relationships. Furthermore, the technique can handle missing data and does not require that all cases have non-missing values on all variables (Peter M. Bentler, 2006).

While SEM is a robust and flexible method, the use of SEM requires a strong theoretical understanding of the constructs being examined, as well as their proposed relationships. Moreover, SEM is generally complex and can be difficult to use properly. Improper use of SEM can lead to incorrect conclusions (Rick H. Hoyle, 2011).

Structural Equation Modeling (SEM) is a multifaceted statistical approach that combines elements of factor analysis, path analysis, and regression. In SEM, 'p-values' play a vital role in understanding the significance of paths (direct and indirect) between variables.

4.3.1 Direct Relation

The p-value in SEM represents the probability that the observed relationship (or one more extreme) could occur by chance if there were no actual relationship in the population. A smaller p-value suggests that there is strong evidence that the relationship is significant in the population. In a path analysis of SEM, direct relations refer to the one-step relationships between variables.

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If a direct path coefficient has a p-value of less than 0.05 (typically), it's said that the direct relation between the two variables is statistically significant. In other words, it provides enough evidence to prove a hypothesis (Kline, 2015).

| | Original Sample | Sample Mean | Standard Deviation | T Statistics | P Values |
|------------------|----------------------------|------------------------|-------------------------------|-------------------------|-----------------|
| Esc → VGI | 0.098 | -0.041 | 0.121 | 0.815 | 0.415 |
| Fan → VGI | 0.598 | 0.572 | 0.087 | 6.834 | 0.000 |
| RP → VGI | 0.314 | 0.288 | 0.084 | 3.743 | 0.000 |
| EI → VGI | 0.263 | 0.231 | 0.115 | 2.292 | 0.022 |
| Enj → VGI | 0.66 | 0.674 | 0.118 | 5.57 | 0.000 |
| Ars → VGI | 0.125 | 0.091 | 0.128 | 0.975 | 0.330 |
| SE → VGI | -0.006 | -0.006 | 0.055 | 0.101 | 0.920 |
| VGI → VGB | 0.66 | 0.663 | 0.021 | 31.317 | 0.000 |

Here the table above shows the P Value of direct path from videogame related Escapism, Arousal and Sensory Experiences to player's video gaming intent are (0.415, 0.330 and 0.920). These P Values are greater than the benchmark of 0.05 which means there is no significant relationship between videogame related Escapism, Arousal and Sensory Experiences, and player's video gaming intent.

The table also illustrates that the beta values of direct path from videogame related Fantasy, Role projection, Emotional Involvement and Enjoyment to player's video gaming intent all are positive which indicates a positive relationship between variables. Moreover the P Values of these direct paths are less than 0.05 which demonstrates significant relationship between these variables and player's video gaming intent.

Lastly, the beta value of direct path between player's video gaming intent and player's video gaming behaviour is positive, and the P value is less than 0.05. This indicates that there is positive significant relationship between the video gaming intent and the dependent variable.

4.3.2 Mediation Analysis

Mediation analysis in Structural Equation Modeling (SEM) is a statistical method employed to discern and elucidate the process or mechanism that results in a visible relationship between an independent and a dependent variable. This is accomplished by incorporating a third presumptive variable, referred to as the mediator variable.

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An indirect effect occurs when the effect of the independent variable on the dependent variable is mediated through another variable, called the mediator. To test the significance of this indirect effect, we often use p-values.

A specific indirect effect refers to the effect of an independent variable on a dependent variable through a particular mediator or a specific path when there are multiple mediators involved. The p-value for the specific indirect effect is a statistical measure that shows if the specific indirect effect is significantly different from zero. If the p-value is less than the predetermined significance level (usually 0.05), there is a significant indirect effect through the specific path in the model (Andrew F. Hayes, 2013).

So, P-values in SEM for indirect relations are a statistical measure that researchers use to draw conclusions about the significance of indirect effects in their models. It's crucial to interpret them within the broader context of the research

| | Original Sample | Sample Mean | Standard Deviation | T Statistics | P Values |
|------------------------|------------------------|--------------------|---------------------------|---------------------|-----------------|
| Esc → VGI → VGB | 0.065 | -0.029 | 0.081 | 0.801 | 0.423 |
| Fan → VGI → VGB | 0.395 | 0.379 | 0.058 | 6.779 | 0.000 |
| RP → VGI → VGB | 0.207 | 0.191 | 0.055 | 3.784 | 0.000 |
| EI → VGI → VGB | 0.173 | 0.152 | 0.075 | 2.314 | 0.021 |
| Enj → VGI → VGB | 0.436 | 0.446 | 0.078 | 5.599 | 0.000 |
| Ars → VGI → VGB | 0.082 | 0.06 | 0.085 | 0.969 | 0.332 |
| SE → VGI → VGB | -0.004 | -0.004 | 0.036 | 0.1 | 0.920 |

In the table drawn above, the indirect path from videogame related Escapism, Arousal and Sensory Experiences to player's video gaming behaviour have P Values greater than 0.05 which projects that player's video gaming intent is not acting as a significant mediator in the paths of videogame related Escapism, Arousal and Sensory Experiences to player's video gaming behaviour. This is because these factors have no significant relationship with the dependent variable.

The table above shows that the P values of path from videogame related Fantasy, Role Projection, Emotional Involvement and Enjoyment to player's video gaming behaviour are less than 0.05 which reveals player's video gaming intent is a valid mediator, and positively mediating the relation of independent variables to dependent variable as the beta values are positive.

4.4 Hypothesis Findings

| Hypothesis | Statement | Result |
|-------------------|--|---------------|
| H1 | Videogame related escapism has a positive impact on video gaming intent of players. | Rejected |
| H2 | Videogame related fantasy has a positive impact on video gaming intent of players. | Supported |
| H3 | Videogame related role projection has a positive impact on video gaming intent of players. | Supported |
| H4 | Videogame related emotional involvement has a positive impact on video gaming intent of players. | Supported |
| H5 | Videogame related enjoyment has a positive impact on video gaming intent of players. | Supported |
| H6 | Videogame related arousal has a positive impact on video gaming intent of players. | Rejected |
| H7 | Videogame related sensory experience has a positive impact on video gaming intent of players. | Rejected |
| H8 | Video gamers' intent to play a videogame has a positive effect on their video gaming behaviour. | Supported |

Chapter 5

CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 *Escapism*

The results show that the video gaming related escapism does not impact player's video gaming intent, resonating with previous studies which indicated non-significant impact of video game related escapism on video gaming intent. This can be either because of the nature of DOTA 2 game that it does not provide players the level of video game escapism to have an impact on their video gaming intent, or the most of the players on which the study was conducted do not understand and realise the video game escapism they get while playing DOTA 2.

5.1.2 *Fantasy*

The results conclude that video that the video gaming related escapism does impact player's video gaming intent, challenging the previous studies which stated that the video gaming related escapism does not impact player's video gaming intent. This is because of the nature of game DOTA 2 as it makes players think about the game at non playing hours, such as which hero (DOTA 2 characters) 'I should've selected for better outcome' etc influencing their video gaming intent such as planning to improve at the game. Hence, showing a positive impact of video game related fantasy on player's video gaming intent.

5.1.3 *Role Projection*

The results display a relationship between video gaming related escapism and player's video gaming intent, contradicting past studies which didn't display any significant relationship between video gaming related escapism and player's video gaming intent. This has to do with the fact that DOTA 2 is a role based game, with 5 team members in each game with different roles, such as support, roamer, offlane etc. Players choose role according to their preferences and which better suits their mentality and play style. Hence, the factor of role projection has a positive significant impact on player's video gaming intent in our research.

5.1.4 Emotional Involvement

Our findings show that the video gaming related emotional involvement does impact player's video gaming intent, resonating with previous studies which indicated significant impact of video game related emotional involvement on video gaming intent. This reflects the game's characteristics of the game which is very emotionally involving. DOTA 2 players are very emotionally involved the game that win or lose can determine their mood. Therefore, the observations of this study also shows a positive impact of videogame related emotional involvement on player's video gaming intent.

5.1.5 Enjoyment

The evaluations in this study exhibits a strong impression of video game related enjoyment on player's video gaming intent. These disclosure agrees with the previous explorations that depicted a relationship between videogame related enjoyment and player's video gaming intent. This was quite predictable as games main purpose is to provide enjoyment to the players and famous games offer more enjoyment. Hence showing a positive impact of videogame related enjoyment on player's video gaming intent.

5.1.6 Arousal

The observations in this exploration illustrates that video game related arousal does not have any notable force on player's video gaming intent. These outcomes contradict with pervious study findings which displayed a significant relationship between the two variables. This is mainly because of the change of objectives from game to game, some games are more arousal and some focus on other experiential factors.

5.1.7 Sensory Experience

Our outcomes in the research also shows that the video game related sensory experiences does not impact player's video gaming intent. This has to do with the fact that DOTA2 is not designed to have best graphics, cinematics, sounds etc but to be more strategy and player collaboration based game. Compare to other cinematic games, DOTA2 is relatively basic in cinematography hence not providing much of a sensory experience to the players. Therefore our study also diverge from the previous studies because of the nature of the game.

5.1.8 *Video Gaming Intent*

Our study clearly indicated that the player's video gaming intent does significantly has an effect on player's actual video gaming behaviour, acknowledging previous studies which showed us a relationship between player's video gaming intent and player's actual video gaming behaviour. This means, a positive intent of player will lead to a positive behaviour regarding the game and hence vice versa.

5.2 **Conclusion**

The aim of this study was to understand the emotional and experiential aspects of video gaming consumption through a multidimensional approach. Our study revealed that emotional and experiential factors such as Fantasy, Role Projection, Emotional Involvement and Enjoyment does impact positively on player's video gaming intent, and player's video gaming intent does impact player's video gaming behaviour. In addition to that, our study also unveiled that video gaming factors such as Escapism, Arousal and Sensory does not have any significant impact on player's video gaming intent and hence on player's video gaming behaviour.

These findings challenge the previous studies that led to the conclusion that hedonic experiences such as Fantasy and Role Projection does not impact player's video gaming intent and behaviour ([Linda D. Hollebeek A. Z., 2022](#)). This indicates that the emotional and experiential aspects that effect player's video gaming intent and player's video gaming behaviour varies according to the genre of the games. The previous studies were conducted on PUBG game players, hence the Fantasy and Role Projection did not have an impact on the player's video gaming behaviour as the game is first person shooter game and the nature of game is rather realistic and less role dependent.

In contrast to that our study suggested that hedonic experiences such as Fantasy and Role Projection does impact player's video gaming intent and behaviour because we conducted the Study on DOTA2 which is a MOBA game. DOTA2 encompasses more on fictional character and each character has a specific role to perform, hence the results reflected that the players who play MOBA games such as DOTA2 experiential and emotional factors like Fantasy and Role Projection impacts their behaviours.

Another noteworthy aspect to take into account is that in past studies it should Sensory Experience does impact the player's video gaming behaviour however our study suggested the opposite that it does not have any significant impact. This rather because other games on which past studies were conducted like FIFA and PUBG are games with good graphics and their audience take good graphics into account. Meanwhile, DOTA2 is more of strategy and teamwork game and does not heavily focuses on the graphics. So, for the players who are more into MOBA genre games, are more looking for game involvement, teamwork and in-game scalability.

Pakistani MOBA genre game developers should add the emotional and experiential factors like Fantasy, Role Projection, Emotional Involvement and Enjoyment in their games to make a more intriguing game like DOTA2 which had prize pool of over \$40 million which is the largest prize pool in e-sports history (Esports Earning, 2023). Marketers should also not forget to highlight these feature while making marketing strategy and deploying that strategy to attract new players. DOTA2 can also use these finding to enhance those features of their game which depicts those hedonic aspects which enhances player's video gaming behaviour.

Other Pakistani genre game developers can follow same model and study method to find out which emotional and experiential aspects of video gaming influence their genre players' video gaming behaviour and can take advantage of those findings.

Lastly, these finds can be used outside the realm of gaming, companies can adopt these aspects to improve the efficiency and retention of employees by incorporating these aspects in the gamification model for those employees / customers who are into MOBA genre games.

5.3 Research Limitations

Sample Size Constraints: Due to time, resource, or accessibility constraints, the current study might have a smaller sample size. This could potentially affect the extent to which the findings represent the Pakistani gamers' experience and the generalizability of the results.

Geographical Focus: The study's specific focus on the DOTA2 players in Pakistan could limit the relevance of the findings to other regions and cities within the country.

Industry-Specific Focus: The research concentrated exclusively on the MOBA genre games, which may restrict the applicability of the findings to other business sectors.

Temporal Limitations: The time frame of the study may have made it challenging to discern long-term trends or changes in player's video gaming behaviour over the time.

Potential for Self-Report Bias: As the study relied on self-reported data, there may have been response bias or social desirability bias, where participants provided answers they believed were socially acceptable or expected.

Cross-Sectional Design: The use of a cross-sectional design in this study may have made it more difficult to determine whether the emotional and experiential aspects of video gaming consumption were for the limited time according to game's position in those days or was it the overall effect of the game.

Other factors: There might be other hedonic factors which play as moderator role and can affect the findings of the study.

5.4 Recommendations and Future Research

While this research offers valuable insights, it's not without its limitations. The study's design, being cross-sectional, captures only a single moment in time. For a more thorough understanding of the relationships studied, future research should consider a longitudinal design that tracks these relationships over time (Joseph F. Hair, 1995). Additionally, implementing experimental approaches could provide further insights into players' and spectators' gaming dynamics, exploring which elements of hedonic gaming are dominant under specific conditions.

Due to the population being unknown the Krejcie and Morgan Table for sample size was not applied. In future it is recommended that you get the insights about the total number of player in the geographics your study is based on. Moreover, due to time constraint nature of this research, the minimum possible sample size was selected, in future it is recommended that a larger sample size is taken.

Future research can use mixed-method techniques that integrate self-reported data with observational or behavioural assessments to reduce self-report bias. Using anonymity and protecting participant confidentiality might also encourage candid and objective replies

Our study focused on one popular game DOTA2, but the results may not apply universally to other digital games or genres due to the specific characteristics of this game. Future research

should apply the model used in this study to a wider array of games and genres, such as advergaming (Andrew Kuo, 2015), freemium games (Juho Hamari N. H., 2020), or massively multiplayer online role-playing games (Vishag A. Badrinarayanan, 2014).

Although we investigated the multifaceted aspects of hedonic consumption in the context of video gaming, similar research could be useful in other contexts involving pleasure-driven consumption, such as offline games, movies, tourism, theme parks, and festivals (Waqar Nadeem T. M., 2021). This is particularly relevant in the era of COVID-19, where understanding how consumers engage with and derive enjoyment from products and services has become even more crucial.

This research also focused on consumers' hedonic consumption experience specifically in the context of DOTA2. However, it's worth investigating how our findings may transfer to more utilitarian games, such as serious or educational ones. Finally, while our study relied on self-reported gaming behaviour as the dependent variable, future researchers might consider using different outcome variables, such as video game satisfaction, loyalty, love, or word-of-mouth.

REFERENCES

- Adrienne Shaw. (2010). What Is Video Game Culture? *Cultural Studies and Game Studies. Games and Culture*, 403–424.
- al., P. e. (2010). A Motivational Model of Video Game Engagement. *Review of General Psychology*, 154-166.
- Alison McMahan. (2003). Immersion, engagement, and presence: A method for analyzing 3-D video games. *The Video Game, Theory Reader*, 67-86.
- Amir Zaib Abbasi, D. H. (2019). Engagement in games: developing an instrument to measure consumer videogame engagement and its validation. . *International Journal of Computer Games Technology*.
- Amir Zaib Abbasi, M. A. (2023). Engagement and consumption behavior of eSports gamers. *Spanish Journal of Marketing*, 2444-9709.
- Amir Zaib Abbasi, M. K. (2023). Gamers' subjective Well-Being: the role of Peripheral and Core elements of eSporst Videogame Addiction. *Current Psychology*.
- Amir Zaib Abbasi, N. A. (2023). Esports as playful consumption experiences: Examining the antecedents and consequences of game engagement. *Telematics and Informatics*, 101937.
- Andrew F. Hayes. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis*. The Guilford Press.
- Andrew K. Przybylski, C. S. (2010). A Motivational Model of Video Game Engagement. *Review of General Psychology*, 154 - 166.
- Andrew K. Przybylski, N. W. (2017). A prospective study of the motivational and health dynamics of Internet Gaming Disorder. *PeerJ*.
- Andrew Kuo, D. H. (2015). Catch and Shoot: The Influence of Advergame Mechanics on Preference Formation. *Psychology and Marketing*, 162–172.
- Andrii Babii. (2020). Important aspects of the experimental research methodology. *Scientific Journal of the Ternopil National Technical University*, 77–87.
- APA. (2017, January 1). *Ethical Principles of Psychologists and Code of Conduct*. Retrieved from American Psychological Association: <https://www.apa.org/ethics/code>
- Asimina Vasalou, A. J. (2008). Avatars in social media: Balancing accuracy, playfulness and embodied messages. *International Journal of Human-Computer Studies*, 801-811.
- Barbara M. Byrne. (2013). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming, Second Edition*. Taylor & Francis Group.

- Benjamin Ultan Cowley, D. K. (2008). *Toward an understanding of flow in video games*. Computers in Entertainment.
- Calleja, G. (2007). Digital Game Involvement: A Conceptual Model. *Games and Culture*, 236–260.
- Charlene Jennett, A. L. (2008). Measuring and defining the experience of immersion in games. *International Journal of Human-Computer Studies*, 641-661.
- Christian Montag, M. R. (2015). *Internet Addiction: Neuroscientific Approaches and Therapeutical Interventions*. Switzerland: Springer.
- Christoph Klimmt, D. H. (2010). Identification with video game characters as automatic shift of self-perceptions. *Media Psychology*. *Media Psychology*, 323-338.
- Christopher J Armitage, M. T. (2010). Efficacy of the Theory of Planned Behaviour: A Meta-Analytic Review. *British Journal of Social Psychology*, 471 - 499.
- Claes Fornell, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 39–50.
- Consalvo, M. (2009). There is No Magic Circle. *Games and Culture*, 408-417.
- Craig A Anderson, K. E.-S. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology*, 772-812.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- David B. Resnik, L. M. (2015). An International Study of Research Misconduct Policies. *Accountability in Research*, 249-266.
- David Wilkinson, P. B. (2003). *Using Research Instruments: A Guide for Researchers*. Taylor & Francis.
- Davide C. Orazi, K. Y. (2023). Consumer escapism: Scale development, validation, and physiological associations. *Journal of Business Research*.
- Dominic Arsenault. (2009). Video game genre, evolution and innovation. *Eludamos. Journal for Computer Game Culture*, 149-176.
- Elihu Katz, J. G. (1974). Uses and gratifications research. *The Public Opinion Quarterly*. *The Public Opinion Quarterly*, 509-523.
- Elizabeth A. Boyle, T. M. (2012). Engagement in digital entertainment games: A systematic review. *Computers in Human Behavior*, 771-780.
- Elizabeth C. Hirschman, M. B. (1982). Hedonic Consumption: Emerging Concepts, Methods and Propositions. *Journal of Marketing*, 92 - 101.

- Esports Earning. (2023). *Tournaments*. Retrieved from Esports Earnings: <https://www.esportsearnings.com/tournaments>
- Esports, I. T. (2021). *DotA2 Demographic Survey*. DocDroid.
- Frans Mäyrä. (2008). *An introduction to game studies: Games in culture*. Sage Publications Ltd.
- Gareth James, D. W. (2013). *An Introduction to Statistical Learning: with Applications in R*. Springer.
- Hamed Taherdoost. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 18-27.
- Hans van der Heijden. (2004). User Acceptance of Hedonic Information System. *MIS Quarterly*, 695-704.
- Harris, R. J. (2001). *A cognitive psychology of mass communication*. Lawrence Erlbaum Associates Publishers.
- Holin Lin, C.-T. S. (2011). Cash trade in free-to-play online games. *Games and Culture*, 270–287.
- Icek Ajzen. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 179-211.
- I-Cheng Chang, C.-C. L. (2014). The effects of hedonic/utilitarian expectations and social influence on continuance intention to play online games. *Internet Research*, 21-45.
- J Matias Kivikangas, G. C. (2011). A review of the use of psychophysiological methods in game research. *Journal of gaming & virtual worlds*, 181–199.
- J. Joško Brakus, B. H. (2009). Brand experience: what is it? How is it measured? Does it affect loyalty? *Journal of marketing*, 52-68.
- Jacob Cohen. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Taylor & Francis.
- James Y.L. Thong, S.-J. H. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *Journal of Human-Computer Studies*, 799-810.
- Jeffrey G. Snodgrass, M. G. (2011). Enhancing one life rather than living two: Playing MMOs with offline friends. *Computers in Human Behavior*, 1211-1222.
- Jeffrey G. Snodgrass, M. G. (2014). A vacation from your mind: Problematic online gaming is a stress response. *Computers in Human Behavior*, 248-260.

- Jen-Her Wu, S.-C. W.-H. (2009). Why Do Players Stick to a Specific Online Game? The Users and Gratifications Perspective. *15th Americas Conference on Information Systems* (pp. 1-351). San Francisco: Association for Information Systems.
- Jeroen Jansz, L. M. (2005). Gaming at a LAN event: the social context of playing video games. *New Media & Society*, 333–355.
- Jeroen S. Lemmens, P. M. (2011). Psychosocial causes and consequences of pathological gaming. *Computers in Human Behavior*, 144-152.
- John L Sherry, K. L. (2006). Video game uses and gratifications as predictors of use and game preference. *International Journal of Sports Marketing and Sponsorship*, 213-224.
- John W. Creswell, J. D. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage.
- Jonathan Freeman, S. E. (1999). Effects of Sensory Information and Prior Experience on Direct Subjective Ratings of Presence. *Presence Teleoperators & Virtual Environments*, 1-13.
- Joseph F. Hair Jr, G. T. (2014). *A Primer on Partial Least Squares Structural Equation Modeling*. Sage Publications.
- Joseph F. Hair Jr, G. T. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications.
- Joseph F. Hair, R. E. (1995). *Multivariate Data Analysis*. United States: Prentice Hall.
- Juho Hamari, A. M. (2018). Uses and Gratifications of Pokémon Go: Why do People Play Mobile Location-Based Augmented Reality Games? *International Journal of Human-Computer Interaction* , 1-16.
- Juho Hamari, D. J.-C. (2016). Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. *Computers in Human Behavior*, 170-179.
- Juho Hamari, J. T. (2014). Player types: A meta-synthesis. *Transactions of the Digital Games Research Association*, 29-53.
- Juho Hamari, M. S. (2017). What is eSports and why do people watch it? Internet research. *Internet Research*, 211-232.
- Juho Hamari, N. H. (2017). *International Journal of Information Management*, 1449-1459.
- Juho Hamari, N. H. (2017). *International Journal of Information Management*, 1449-1459.
- Juho Hamari, N. H. (2020). "Why pay premium in freemium services?" A study on perceived value, continued use and purchase intentions in free-to-play games. *International Journal of Information Management*.

Emotional and Experiential Aspects of Video Game Consumption

- Julian J. Faraway. (2002). *Practical Regression and Anova using R*.
- Kari Kallinen, N. R. (2007). Comparing speakers versus headphones in listening to news from a computer – individual differences and psychophysiological responses. *Computers in Human Behavior*, 303-317.
- Katherine Bessière, A. F. (2007). The Ideal Elf: Identity Exploration in World of Warcraft. *Cyberpsychology & Behavior*, 530-535.
- Kenneth A. Bollen. (1989). *Structural Equations with Latent Variables*. John Wiley & Sons, Inc.
- Khawaja Asjad Saeed, Y. H. (2003). Toward an Integrative Framework for Online Consumer Behavior Research: A Meta-Analysis Approach. *Journal of Organizational and End User Computing* , 1-26.
- Klimmt Christoph, H. D. (2009). The video game experience as "true" identification: A theory of enjoyable alterations of players' self-perception. *Communication Theory*, 351–373.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling*. Guilford Publications.
- Kristen Lucas, J. L. (2004). Sex Differences in Video Game Play:: A Communication-Based Explanation. *Communication Research*, 499–523.
- Kuo M. S, R. R. (2015). The role of personality differences in the relative effectiveness of competitive versus cooperative serious games. *Journal of Broadcasting & Electronic Media*, 399-419.
- Lee Doohwang, L. R. (2007). A socio-cognitive model of video game usage. *Journal of Broadcasting & Electronic Media*, 632–650.
- Lee Yu-Kang, C. C.-T.-H. (2014). The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress. *Computers in Human Behavior*, 373–383.
- Lennart E. Nacke, C. A. (2009). Affective Ludology, Flow and Immersion in a First- Person Shooter: Measurement of Player Experience. *arXiv*.
- Lennart E. Nacke, M. N. (2010). More than a feeling: Measurement of sonic user experience and psychophysiology in a first-person shooter game. *Interacting with Computers*, 336-343.
- Linda D. Hollebeek, A. Z. (2020). The effects of consumer esports videogame engagement on consumption behaviors. *Journal of Product & Brand Management*, 1194-1211.
- Linda D. Hollebeek, A. Z. (2022). Hedonic consumption experience in videogaming: A multidimensional perspective. *Journal of Retailing and Consumer Services*, 102892.

Emotional and Experiential Aspects of Video Game Consumption

- Louise Barnsbee, A. G. (2018). Cost-effectiveness. In M. C. Shaun D. Gregory, *Mechanical Circulatory and Respiratory Support* (pp. 749-772). Elsevier.
- Mark Grimshaw. (2010). *Game Sound Technology and Player Interaction: Concepts and Developments*. New York: Information Science Reference.
- Mark Israel, I. H. (2006). *Research Ethics for Social Scientists*. SAGE Publications, Ltd.
- Mark NK Saunders, P. L. (2019). *Research Methods for Business Students*. Harlow. Pearson Education.
- Melissa L Lewis, R. W. (2008). "They May Be Pixels, But They're MY Pixels:" Developing a Metric of Character Attachment in Role-Playing Video Games. *Cyberpsychology & Behavior*, 515-523.
- Menard, S. (1995). *Applied Logistic Regression Analysis*. United States: SAGE Publications.
- Mimansha Patel, N. P. (2019). Exploring Research Methodology: Review Article. *International Journal of Research and Review*, 48-55.
- Morris B. Holbrook, E. C. (1982). The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun . *Journal of Consumer Research*, 132–140.
- Natasha Mack, C. W. (20015). *Qualitative Research Methods: A Data Collector's Field Guide*. North Carolina: Family Health International.
- Newzoo. (2020). *Newzoo Global Games Market Report 2020*. Amsterdam: Newzoo.
- Nicholas David Bowman, R. T. (2012). Task demand and mood repair: The intervention potential of computer games. *New Media & Society*, 1339-1357.
- Nick Yee. (2006). Motivations for Play in Online Games. *CyberPsychology & Behavior*, 772-775.
- Penelope Sweetser, P. W. (2005). GameFlow: a model for evaluating player enjoyment in games. *Computers in Entertainment*, 3-3.
- Peter M. Bentler. (2006). *EQS 6 Structural Equations Program Manual*. Multivariate Software.
- Peter Vorderer, C. K. (2004). Enjoyment: At the Heart of Media Entertainment. *Communication theory*, 388-408.
- Rachel Kowert, E. D. (2014). Social gaming, lonely life? The impact of digital game play on adolescents' social circles. *Computers in Human Behavior*, 385-390.
- Rafael A. Calvo, D. P. (2014). *Positive Computing: Technology for Wellbeing and Human Potential*. MIT Press.
- Richard M. Ryan, C. S. (2006). The Motivational Pull of Video Games: A Self-Determination Theory Approach. *Motivation and Emotion*, 344–360.

Emotional and Experiential Aspects of Video Game Consumption

- Richard M. Ryan, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 68–78.
- Richard McElreath. (2020). *Statistical Rethinking: A Bayesian Course with Examples in R and Stan*. Chapman & Hall.
- Rick H. Hoyle. (2011). *Handbook of Structural Equation Modeling*. Guilford Press.
- Robert M. O'Brien. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, 673-690.
- Ron Tamborini, M. G. (2011). Media Enjoyment as Need Satisfaction: The Contribution of Hedonic and Nonhedonic Needs. *Journal of Communication*, 1025-1042.
- Ron Tamborini, N. D. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of Communication*, 758–777.
- Ron Tamborini, P. S. (2006). The role of presence in the experience of electronic games. *Playing video games: Motives, responses, and consequences*, 225–240.
- Schmitt, B. (1999). Experiential Marketing. *Journal of Marketing Management*, 53-67.
- Taylor, T. L. (2006). *Play Between Worlds: Exploring Online Game Culture*. Cambridge: MIT Press.
- Thomas E. Ruggiero. (2000). Uses and Gratifications Theory in the 21st Century. *Mass Communication and Society*, 03-37.
- Tze Wei Liew, C. L.-M. (2022). How Social Influence and Hedonic/Utilitarian Outcome Expectations Affect Continuance Intention to Play Online Games. *International Conference on Digital Transformation and Intelligence* (pp. 161-167). Sarawak, Malaysia: IEEE.
- Vishag A. Badrinarayanan, J. J. (2014). Determinants and Outcomes of Online Brand Tribalism: Exploring Communities of Massively Multiplayer Online Role Playing Games (MMORPGs). *Psychology & Marketing*, 853–870.
- Waqar Nadeem, D. A. (2015). Engaging consumers online through websites and social media. *International Journal of Information Management*, 432-442.
- Waqar Nadeem, T. M. (2021). How do experiences enhance brand relationship performance and value co-creation in social commerce? The role of consumer engagement and self brand-connection. *Technological Forecasting and Social Change*.
- Zaichkowsky, J. L. (1985). Measuring the Involvement Construct. *Journal of Consumer Research*, 341-352.

Emotional and Experiential Aspects of Video Game Consumption

Zhongyun Zhou, X.-L. J. (2011). Individual motivations and demographic differences in social virtual world uses: An exploratory investigation in Second Life. *International Journal of Information Management*, 261-271.

APPENDIX

Section A: Demographics

What is your gender?

- Female
- Male
- Other

What is your age group?

- 15-20
- 21-25
- 26-30
- 31-35
- 35+

Educational Status?

- School
- College
- Undergraduate
- Postgraduate
- Doctorate

Which country you currently living at?

- Pakistan
- Other

Gaming Location you mostly play DOTA2 at?

- Home
- Gaming Zone
- Friends Place
- Office
- Other

Emotional and Experiential Aspects of Video Game Consumption

Approximately how many hours you play DOTA2 in a day?

- 0.5 hrs - 1 hr
- 1 hr - 1.5 hrs
- 1.5 hrs - 2 hrs
- 2 hrs - 2.5 hrs
- more than 2.5 hrs

Section B: Escapism

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

Playing DOTA2 makes me forget problems.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 makes me forget stresses.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 gets me away from reality.

- 1
- 2
- 3
- 4
- 5

Section C: Fantasy

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

Playing DOTA2 helps me construct fantasies.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 helps me stimulate my imagination.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 helps me daydream.

- 1
- 2
- 3
- 4
- 5

Section D: Role Projection

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

Playing DOTA2 enables me to project myself into a particular character.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 sometimes makes me act like a particular character in real life.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 enables me to project myself into a particular role.

- 1
- 2
- 3
- 4
- 5

Section E: Emotional Involvement

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

When I am playing DOTA2, I feel carried off.

- 1
- 2
- 3
- 4
- 5

When I am playing DOTA2, I feel as I am part of this videogame.

- 1
- 2
- 3
- 4
- 5

Winning game of DOTA2 uplifts my mood, and losing ruins my mood.

- 1
- 2
- 3
- 4
- 5

Section F: Enjoyment

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

Playing DOTA2 is really fun.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 provides me with entertainment.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 provides me with a lot of enjoyment.

- 1
- 2
- 3
- 4
- 5

Section G: Arousal

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

Playing DOTA2 makes me stimulated.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 makes me excited.

- 1
- 2
- 3
- 4
- 5

Playing DOTA2 makes me wide-awake.

- 1
- 2
- 3
- 4
- 5

Section H: Sensory Experience

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

The visuals of the videogame fill my appetite to play DOTA2

- 1
- 2
- 3
- 4
- 5

The videogame music stimulates my emotions to adapt and react accordingly (e.g. I run when someone suddenly appears, I play aggressive when other are playing aggressive, etc.).

- 1
- 2
- 3
- 4
- 5

The music and announcer packs changes my play style in game.

- 1
- 2
- 3
- 4
- 5

Section I: Video Gaming Intent

Choose from the options 1 to 5:

1: Strongly Disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly Agree

I intend to continue playing DOTA2 in the future

- 1
- 2
- 3
- 4
- 5

I intend to improve at DOTA2

- 1
- 2
- 3
- 4
- 5

Section J: Video Gaming Behaviour

I have suggested many friends to play DOTA2

- 1
- 2
- 3
- 4
- 5

I have made in-game purchases.

- 1
- 2
- 3
- 4
- 5

E-Mail to Valve Team

Dear Valve Team,

I am writing to request valuable insights into the number of Dota2 players in Pakistan for my MBA research thesis. Understanding their behaviour will improve marketing strategies and attract more players.

As an MBA student, I am conducting research to understand Dota2 players in Pakistan. The data you provide will greatly benefit both academia and the gaming industry.

I kindly request your support in providing any available data or statistics on Dota2 players in Pakistan. The information will be treated confidentially and used solely for academic purposes, adhering to any guidelines or limitations you specify.

The research findings will not only benefit my academic pursuit but also enhance Valve's understanding of the Pakistani gaming community. By tailoring offerings to meet the unique needs of Pakistani Dota2 players, Valve can attract a larger player base.

Thank you for considering my request. I look forward to your positive response.

Sincerely,

Master's in Business and Administration Researcher

Usama Shahid

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