

Analysis of Consumer Psychology Phenomena in First-person Shooter Games Based on Literature Review and Case Study Method

Lin Luo^{1,a,*}

¹*School of Psychology, University of Birmingham, Birmingham, West Midlands, B15 2TT, United Kingdom*

a. Lxl100@student.bham.ac.uk

**corresponding author*

Abstract: The study is grounded in the evolving challenges of the FPS (First-Person Shooter) gaming industry, particularly focusing on marketing difficulties and the application of consumer psychology, as demonstrated in the Cyberpunk 2077 case. This study aims to assist first-person shooter (FPS) game production companies or studios in enhancing their marketing strategies to increase their games' appeal to consumers and prevent bankruptcies or break-ups. Through case analysis such as Cyberpunk 2077, The study explores consumer psychology's application in FPS games, including microtransaction systems, scarcity items, community competitions, and lottery mechanics within the games. The study reveals that game companies, in designing and implementing these elements, need to carefully consider consumers' psychological responses and needs to provide products and services that meet their needs. Moreover, game companies need to regularly interact with players to understand their needs, make timely adjustments and updates to the game, and offer professional customer service. By understanding and applying the principles of consumer psychology, game companies can better design and manage their games, meet the needs of players, and increase their satisfaction and loyalty.

Keywords: literature review, case study, First-Person Shooter games, consumer psychology

1. Introduction

With the development of everyday home computers, laptops and gaming console hardware, video games have become more and more accepted over the years and there are more and more people who enjoy video games and are willing to make them. This has resulted in the gaming industry continuing to grow in sales over the years and the video game industry has overtaken the music and video industry in sales [1]. Among the many types of video games, first-person shooters (FPS) have always been among the more popular among the video gamer consumer, with their origins dating back to the 1970s, but their popularity increased dramatically in the early 1990s with games such as Doom and Wolfenstein 3D. These groundbreaking games used a first-person perspective to create a personal, intense, immersive gaming experience. But despite this, many FPS game production companies in recent years have not made good commercial profits, and many are even on the verge of collapse. A

large part of the reason for this is that they are not using the right marketing strategies to keep consumers happy and motivated to spend money on their games.

Therefore, the aim of this study is to assist FPS game production companies or studios in enhancing their marketing strategies. This is done to prevent break-ups or bankruptcies and to enhance the appeal of their games to consumers. The study utilizes real-life case studies and previous literature research, all while ensuring the protection of consumers' interests. This study first analyses the application of consumer psychology in the FPS genre, such as microtransaction systems, scarcity items, community competitions and lottery mechanics in games. The study then offers some suggestions to the producers of FPS games based on the players' needs, such as transparency, official interaction and after-sales service.

2. First-Person Games and Consumer Psychology

This study is based on *Cyberpunk 2077*, an FPS game, as a case study. *Cyberpunk 2077*, a massive open world game by Polish game developer CD Projekt Red, has generated a lot of interest from the general public due to its enthusiastic anticipation. However, the game was heavily criticised upon release, which included many technical issues and a game performance that did not meet expectations. This failure provides a unique opportunity to understand and analyse consumer expectations, perceived quality and satisfaction with gaming products from a consumer psychology perspective. Firstly, an important part of the consumer purchase decision process is expectation formation [2]. CD Projekt Red shaped high consumer expectations for the game during its development through marketing campaigns and trailers. However, when the product does not meet consumers' expectations, consumers may feel disappointed and dissatisfied [3]. Secondly, the quality and performance of the game play a key role in shaping consumer satisfaction [4]. Criticism of *Cyberpunk 2077* after its release focused on its performance issues, such as bugs and performance degradation in the game. This perceived lower-than-expected quality may lead to a decrease in consumer satisfaction and negatively affect purchase decisions [5]. In addition, consumer trust in the company is also an important factor that influences purchase decisions and satisfaction [6]. The quality issues following the release of *Cyberpunk 2077* may have damaged consumers' trust in CD Projekt Red, which may affect the company's long-term business.

In the case of *Cyberpunk 2077*, a significant increase in consumer complaint behaviour on social media and gaming forums revealed a major problem: the quality of the game at release fell significantly short of consumer expectations. These issues included technical glitches, performance issues, and gameplay flaws that directly impacted the consumer's gaming experience [7]. The importance of this issue is that consumer dissatisfaction due to quality gaps can greatly affect brand reputation and the long-term growth of a company. Reduced consumer trust in the brand can lead to a decline in sales and even the loss of long-term customers. On the other hand, dealing with this issue may also bring positive results for the company. For example, effective resolution of consumer complaints can not only restore consumer trust, but also increase consumer loyalty to the brand [8]. To address this, companies need to actively confront and address consumer feedback, especially complaints about product quality. This can include fixing known technical issues, optimising product performance, or even making major product revisions. In addition to addressing product issues, companies need to communicate their commitment and actions to improve their products and restore consumer trust externally through an effective communication strategy.

3. Analysis of the Application of Games in Consumer Psychology

The case of *Cyberpunk 2077* provides a window to observe and analyse the application of consumer psychology in first-person shooters. Firstly, there is the consumer psychology of microtransactions

and game currency. Microtransactions are a common trend in the gaming industry in recent years, allowing players to purchase virtual goods and services in-game. Consumers' purchase decisions are influenced by price perceptions, perceived value (i.e. the ratio of the perceived benefit of an item to its price) and their sense of character attachment to their role in the game [9]. In addition, the design of the game currency also influences consumers' purchase behaviour, for example by setting conversion ratios and purchase discounts to influence consumers' perceptions of the price of items. Furthermore, developers can set up purchase offers (e.g. more discounts for buying more game currency) to stimulate players' purchasing behaviour. However, game developers also need to be aware of some potential problems when designing and implementing microtransactions. An over-reliance on microtransactions may trigger a backlash from players, making them feel that the game is too commercialised. In addition, if the prices of in-game items and services are set too high, or if the purchase of these items and services has too great an impact on the game, then players may perceive the game as unfair and in turn reduce their participation or abandon the game altogether. Therefore, microtransactions need to be carefully designed and implemented to maintain the balance and fairness of the game and to protect the rights of players.

Scarcity items in the game are an important factor in the game. These items may include specific weapons, equipment, skins, or certain items that can only be acquired at a specific time or during a specific event. The presence of these scarcity items can add to the player's gaming experience and also stimulate their consumption behaviour. From the perspective of consumer psychology, scarcity can increase the value of an item. According to the scarcity principle, when an item is scarce, people perceive it as more valuable and attractive [10]. This is because scarcity items satisfy people's need for uniqueness and make them feel different [11]. Therefore, having scarcity items in a game can make these items more attractive and stimulate players' purchasing behaviour. In addition, scarcity items can increase players' commitment to the game. For example, players may need to invest more time and effort in order to acquire a scarce item. This investment not only enhances players' engagement with the game, but also their satisfaction and loyalty to the game.

Hosting gaming communities and tournaments is also an application of consumer psychology that can be used in first-person shooters. Gaming communities are an important part of the gaming experience, especially for massively multiplayer online games and eSports. Gaming communities can provide a platform for players to interact with each other, share gaming experiences, compete and even build friendships. From a consumer psychology perspective, there are a number of ways in which gaming communities and competitions can influence players' gaming behaviour and consumption behaviour. Firstly, gaming communities can influence players' behaviour by providing a sense of social identity and belonging. When players feel part of a community, they are more likely to engage in behaviours that align with the community's values, such as purchasing items that are popular in the community and attending events organised by the community [12]. This social influence can be used by game developers to drive players' consumption behaviour. Secondly, competitions are an important part of many games. Through competitions, players can showcase their skills and gain a sense of achievement in the game, as well as communicate and compete with other players. The existence of competitions can stimulate players' competitiveness and stimulate their commitment to the game, as well as drive their consumption behaviour, for example by purchasing game items that enhance competitiveness. However, there are some potential problems with the gaming community and tournaments. If the community atmosphere is poor, or the matches are too intense, it may stress players out and reduce their gaming experience. In addition, if the outcome of a tournament is too dependent on purchased items, it may undermine the fairness of the game and trigger player dissatisfaction. Game developers, therefore, need to take these issues fully into account when designing communities and competitions to maintain a good community environment and provide a fair chance to compete.

Finally, the consumer psychology of the 'raffle' or 'open box' mechanic is a common feature in many modern video games, including many first-person shooters. In this mechanic, the player can purchase a virtual 'box' or 'pack' containing a series of possible items, which the player opens to receive one of them at random. This mechanic stimulates curiosity and gambling, adds a new element to the game and creates an additional source of income for the developer. The "raffle" or "open box" mechanic exploits several important principles of consumer psychology. Firstly, it exploits people's love of the unknown and surprises [13]. Each time a box is opened it brings new surprises and expectations, and this anticipation and curiosity is an important factor that drives people to continue buying and opening boxes. However, the 'raffle' or 'open box' mechanism also brings with it a number of controversies and challenges. Some researchers and critics have likened them to gambling, as they both rely on probability and luck, raising concerns that such mechanisms may lead to addiction and negative effects, especially for young players. Therefore, the use of raffles or unboxing mechanisms needs to be used with caution and developers should consider their possible effects and take measures to protect the interests of players. Developers can also balance the impact of a raffle or open box mechanic by offering more ways to gain access to it. For example, they could offer quests or challenges that give players the opportunity to acquire the items they want, rather than relying solely on purchases. This would enhance the player experience, and reduce the risk of over-reliance on the 'raffle' or 'open box' mechanic.

Overall, the application of consumer psychology to first-person shooters covers a wide range of areas, including microtransactions, scarce items, community interaction and 'raffle' or 'open box' mechanics. The design and application of these elements requires careful consideration of consumers' psychological responses and needs in order to provide products and services that meet their needs. In addition, consumer feedback and complaints are an important way for game developers to understand consumer needs and improve their products.

4. Suggestions

There are a few suggestions that can be made for any first-person shooter game that takes into account the psychology of the consumer perspective. Firstly, the consumption part of the game design should maintain game balance. One possible way to do this is to limit purchases to visual effects, such as character dress-up or customisation items, rather than items that will directly affect the performance or outcome of the game. This approach would allow players to invest more in the game, while avoiding the 'pay to win' model that can upset the balance of the game and lead to player dissatisfaction and churn. Secondly, transparency is essential in any spending element of the game, whether it be in-game currency, or mechanics such as raffles and unboxing. Players should know exactly what they are buying, such as the probability and possible outcomes of purchased in-game items. Transparency helps players to make informed decisions and increases their trust and satisfaction with the game. Furthermore, the interaction between the game company and the players and the professionalism of the customer service are also factors that must be considered. Game companies need to communicate with players regularly to understand their needs and feedback, and make adjustments and updates to the game in a timely manner. At the same time, the customer service department should have sufficient expertise to be able to effectively solve the problems encountered by players. That is because game producer have to maintain a good user experience, otherwise it will cause dissatisfaction among the players. Finally, the quality of post-sales and pre-sales services is also an important factor affecting players' consumption decisions and game satisfaction. In the pre-sales stage, game companies need to provide detailed and accurate information to help players understand the content and features of the game. In the post-sales stage, game companies need to provide effective support and services, including handling players' complaints and problems, as well as providing updates and improvements to the game.

Overall, understanding and applying the principles of consumer psychology can help game companies to better design and manage their games to meet the needs of players and increase their satisfaction and loyalty.

5. Conclusion

This research provides a comprehensive analysis of consumer psychology in the context of First-Person Shooter (FPS) games and how it can significantly influence the game's success. The unique case of *Cyberpunk 2077* serves as a powerful lesson for the industry, demonstrating that meeting and exceeding consumer expectations plays a pivotal role in a game's commercial performance. The failure to meet these expectations can lead to disappointment, dissatisfaction, and a detrimental effect on the company's reputation and long-term business prospects.

Further, this study underscores the importance of various consumer psychological factors in FPS game design and marketing, such as the use of microtransactions, scarcity items, community competitions, and lottery mechanics. These elements, when carefully designed and implemented, can stimulate player engagement, boost in-game purchases, and enhance overall game experience. However, the balance is crucial - over-reliance on such mechanics, especially if they significantly impact gameplay, may lead to player dissatisfaction and game abandonment. The critical takeaway here is to ensure the design elements provide value to players and enhance their in-game experience, rather than being perceived as purely commercial tactics.

Moreover, the study emphasizes the importance of fostering open and transparent communication between game companies and players. This not only improves game design and management but also bolsters trust, satisfaction, and loyalty among the players. Game producers should leverage customer feedback to continuously iterate and improve their games while ensuring excellent pre-sales and after-sales services to enhance the player's overall experience.

In summary, to ensure the continued growth and profitability of the FPS genre and the wider gaming industry, companies must learn to master and apply principles of consumer psychology in their marketing strategies. This requires understanding the psychology of their audience, ensuring game quality, balancing game fairness with monetization, and maintaining open channels for player feedback and interaction. This comprehensive approach can result in a gaming experience that meets and exceeds player expectations, fostering player loyalty, and ultimately contributing to commercial success. The findings of this study bear significant implications for game developers, marketers, and decision-makers in the gaming industry, offering insights on how to effectively utilize consumer psychology in the design and marketing of FPS games. Additionally, players may gain insights into how gaming companies strategize to influence their in-game purchasing behavior, thereby encouraging more informed decision-making. However, it must be acknowledged that due to the inherent uniqueness of each FPS game and its player community, some of the specific findings may not be universally applicable. Future research may delve deeper into these aspects, possibly investigating the application and impact of consumer psychology across different cultural, age, and gender demographics. This study, thus, hopes to provide a significant stepping stone for future explorations in this field.

References

- [1] Greitemeyer, T. Hollingdale, J. (2014) *The Effect of Online Violent Video Games on Levels of Aggression*. *PLoS One*, 9(11).
- [2] Oliver, R.L. (2018) *A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions*. *Journal of Marketing Research*, 17(4), 460-469.

- [3] Miller, J.A. (1977) *Studying Satisfaction, Modifying Models, Eliciting Expectations, Posing Problems, and Making Meaningful Measurements. Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, 72-91.
- [4] Zeithaml, V.A. (1988) *Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence. Journal of Marketing*, 52(3), 2-22.
- [5] Churchill Jr, G.A., Surprenant, C. (1982) *An Investigation into the Determinants of Customer Satisfaction. Journal of Marketing Research*, 19(4), 491-504.
- [6] Hunt, S.D., Morgan, R.M. (1994) *The Commitment-trust Theory of Relationship Marketing. Journal of Marketing*, 58(3), 20-38.
- [7] Homburg, C., Hoyer, W.D., Koschate, N. (2005) *Do Satisfied Customers Really Pay More? A Study of the Relationship between Customer Satisfaction and Willingness to Pay. Journal of Marketing*, 69(2), 84-96.
- [8] Maxham III, J.G., Netemeyer, R.G. (2002) *A Longitudinal Study of Complaining Customers' Evaluations of Multiple Service Failures and Recovery Efforts. Journal of Marketing*, 66(4), 57-71.
- [9] Hamari, J., Keronen, L. (2017) *Why Do People Buy Virtual Goods: A Meta-Analysis. Computers in Human Behavior*, 71, 59-69.
- [10] Lynn, M. (1991) *Scarcity Effects on Value: A Quantitative Review of the Commodity Theory Literature. Psychology and Marketing*, 8(1), 43-57.
- [11] Belk, R.W. (1988) *Possessions and the Extended Self. Journal of Consumer Research*, 15(2), 139-168.
- [12] Brodie, R.J., Glynn, M.S., Hollebeek, L.D. (2014) *Consumer Brand Engagement in Social Media: Conceptualization, Scale Development and Validation. Journal of Interactive Marketing*, 28(2), 149-165.
- [13] Kai-Ineman, D., Tversky, A. (1979) *Prospect Theory: An Analysis of Decision under Risk. Econometrica*, 47(2), 363-391.