

The Relationships Between Personality Traits and Online Game Playing Motivations Amongst College Students

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Abstract: *As studies focusing on the psychological dynamics of multiplayer realistic battle games in Malaysia is quite limited, the present study attempts to investigate the relationships between personality traits and online game-playing (PUBG; Player Unknown's Battle Ground) motivations amongst college students. A total of 200 students who are actively playing voluntarily answered the Mini-IPIP (Mini-International Personality Item Pool Scales) (Donellan et al, 2006) and Motivation for Play (Yee, 2006) to measure personality traits and types of motivation in playing online games. Descriptive and inferential analyses were conducted and the results indicated that the most prevalent personality traits among the players are Agreeableness followed by Extraversion. In addition, Escapism and Social are the strongest reasons reported for playing the PUBG. Males are significantly higher in Advancement, Mechanics, Customization and Discovery in-game motivation as compared to females. Significant correlations are found in a few analyses, namely Extraversion was positively related with Advancement motivation, and Agreeableness was positively related to Teamwork motivation. Lastly, Conscientiousness was positively related with Competition motivation. The results further supported the personality and in-game motivation for future research directions.*

Keywords: Personality traits, In-game Motivation, Online Game Players, PUBG

1. Introduction

This study investigates the relationships between personality and online game playing motivation amongst college students. Player Unknown's Battle Grounds (PUBG) is an online multiplayer battle royale game typically played with four in a team, duo or solo. The PUBG online gaming stream for North America, South America, Europe, and Asia. We analyse five personalities and three online game motivations of the players, answering four research questions: what is the personality trait of players of PUBG, what is their in-game motivation, gender differences in players motivation and relationships between personality and in-game motivation of players.

Problem Statement

Personality traits of players

The existing literature from the west on personality traits, while limited, suggests a contested and varied landscape than east literature. Extraversion is found to be both highly related (and unrelated to players' personalities (Andreassen, et al., 2013; Ferro, 2018; Jiz, Xu, Karanam & Voida, 2016; Park, Song, & Teng, 2011), while Agreeableness shows both positive (Park,

Song, & Teng, 2011; Kober & Neuper, 2013) and negative correlations (Ferro, 2018). Openness is the most consistently related trait (Formica, Gaiffi, Magnani, Mancini, Scatolini, & Ulivieri, 2017; Jia, Xu, Karanam & Voida, 2016; Liang, 2012) but has exceptions in Andreassen, et al., (2013) and Peter and Malesky (2008). Neuroticism is positively correlated with video game addiction in Western studies, whereas Conscientiousness shows varying results (Andreassan et al., 2013; Billuex et al., 2011; Malesky, 2008 & Wittek et al., 2015).

In contrast, Eastern countries, such as Taiwan, exhibit different patterns. Neuroticism, Openness, Extraversion, and Conscientiousness are highly related to players' personalities, while Agreeableness is the least related trait (Shih-Peng and Ching-I, 2008). These contrasting findings suggest a need for further research to determine which personality traits are most prevalent among gamers, as the current literature yields mixed results.

Motivation of players while playing online games

The current literature on motivation of players on online games while restricted, presents conflicting findings regarding the dominant motivation factors. For instance, Šporčić and Glavak-Tkalić (2018) identified Escapism as the most prominent predictor of motivation among online gamers, indicating a strong inclination for players to seek refuge in virtual worlds. Conversely, research by Turkey and Adinolf (2015) challenged this notion by highlighting Customization as a dominant motivational factor, particularly in the context of avatar-based online games. Meanwhile, Blinka and Makuška (2014) revealed that Social interaction plays a pivotal role in motivating players, emphasizing the significance of engaging with a diverse online gaming community.

This disparity in findings underscores the need for a comprehensive examination of player motivation in online gaming, aiming to discern the underlying motivational factors and their impact on player engagement. By addressing this research gap, we aim to contribute valuable insights to the psychological of game players and enhance our understanding of the intricate relationship between player's motivation and engagement in online gaming.

Gender differences in players motivation

The research dilemma revolves around inconclusive findings in studies examining gender differences in player motivation, particularly in online gaming and PUBG. While some studies suggest that female players are primarily motivated by social factors (Royse, Lee, Undrahbuyan, Hopson, & Consalvo, 2007; Yee, 2006), and males by instrumental ones (Chang, Wong, Yap & Yap, 2016; Liu, 2016), mixed results abound. Gender-based variations in sensitivity and enjoyment further complicate the picture (Liu, 2016; Yee, 2006; Zhang, 2013). In the Malaysian context, motivations differ between genders, but recent research hints at a shared interest in entertainment and escapism. (Alzharani, Mahmud, Ramayah, Alfarraj & Alalwan, 2017). Given the ongoing uncertainty in these findings, further investigation is warranted to comprehensively understand gender-based distinctions in player motivations in PUBG and online gaming.

Relationship between personality and in-game motivation of players

The extant literature on player personality reveals a paucity of comprehensive findings, both from Western and Eastern perspectives. The present literature concerning player motivation in online games, albeit limited, presents divergent findings with respect to the prevailing motivational factors. Hence, it is imperative to undertake a fundamental research endeavor to bridge this gap, providing valuable insights for future researchers seeking to elucidate these relationships within the context of this study.

2. Literature review

Personality traits of players

The existing literature on the personality traits of gamers presents a mosaic of findings, revealing inconsistencies and mixed results. Various studies have explored the relationship between personality traits and gaming behaviors, yielding contrasting outcomes. For instance, Liang (2012) observed a positive association between online gaming and Neuroticism, Openness, Extraversion, and Conscientiousness, but not Agreeableness. Conversely, Formica et al. (2017) found that Openness was the dominant personality trait among mobile video gamers, followed by Agreeableness, Conscientiousness, and Neuroticism, with Extraversion displaying the weakest correlation.

Kober and Neuper (2013) conducted a study predominantly focused on females and reported that Conscientiousness held the highest significance among gamers, followed by Agreeableness, Openness, Extraversion, and Neuroticism. In contrast, Jia, Xu, Karanam, and Voids (2016) balanced their sample with both genders and identified Openness as the most prominent trait, followed by Agreeableness, Conscientiousness, Neuroticism, and Extraversion. Discrepancies in findings are apparent, with diverse studies highlighting varying personality traits' significance among gamers.

Furthermore, investigations into the impact of personality traits on gameplay reveal disparities. For example, Peter and Malesky (2008) noted that Neuroticism and Agreeableness were positively correlated with gaming behaviors, suggesting that Neuroticism players tend to favor virtual relationships over real-life social interactions, while Agreeableness players tend to adopt a follower role in challenging situations. In contrast, Andreassen et al. (2013) found no association between Openness and Conscientiousness with gamers' personality traits.

The inconclusive nature of these findings poses a challenge for theories seeking to explain the relationships between personality traits and gaming behaviors. Discrepancies may arise due to variations in sample size, analytical methodologies, and the diversity of game genres studied. Importantly, different types of games may elicit distinct personality trait associations.

Despite the extensive research on online gaming in Malaysia, with a focus on areas such as personality and life satisfaction, PUBG has received limited attention. Therefore, this study aims to delve deeper into the issue and ascertain the most significant personality trait among PUBG players, shedding light on a crucial but relatively unexplored facet of gaming psychology.

Motivation of players while playing online games

The literature review delves into the motivation of players in online gaming, emphasizing the evolving mechanisms and social interaction's impact on gamers' motivation. Numerous studies have contributed to the understanding of player motivation, with a focus on factors such as achievement, social interaction, immersion, and escapism.

Yee (2006) conducted a comprehensive study on player motivation, categorizing traits into three main components: Achievement, Social, and Immersion motivation. The study found that male players scored higher on Achievement, while female players scored higher on Social, Immersion, and Escapism motivation.

However, most of the existing research has primarily centered on Western countries, and there is limited data from Asian countries. Different practices, values, and beliefs in various regions may lead to variations in player motivation. For example, Šporčić and Glavak – Tkalić (2018) found that players in Croatia were highly motivated by escapism and less motivated by social interactions.

In Taiwan, Lo, Lie, and Li (2015) investigated online gaming motivation and the selection of game characters. They discovered that socially motivated players preferred celebrity characters, while achievement and immersion-motivated players did not exhibit significant preferences. Social motivation was a driving force for player enjoyment and customization of characters.

However, the literature also presents conflicting findings. Kirby, Jones, and Copello (2014) found that immersion motivation, driven by escapism, could lead to excessive play and potential negative impacts on psychological well-being. These findings contrast with studies that found positive effects of achievement and social motivation on player well-being.

The demographic profile of players also plays a crucial role in their in-game motivation. Cultural and geographical differences contribute to variations in player motivations. For instance, Chinese players were found to be highly motivated by social interaction and competition (Wu, Lai, Yu, Lau, & Lei, 2017).

In summary, the literature review highlights the diverse and sometimes conflicting findings regarding player motivation in online gaming, with Western studies emphasizing escapism and achievement, while Asian studies often prioritize social motivation. The need for further research, especially in specific games like PUBG, is evident to gain a more comprehensive understanding of player motivation in different contexts.

Gender differences in players motivation

Gender plays a significant role in understanding players' in-game motivation, and the increasing participation of both male and female players in the online gaming industry has led to research into gender differences in gaming motivation. While traditional stereotypes suggested that gaming was predominantly a male activity, studies have shown that female players are actively engaged in various gaming genres, particularly Massively Multiplayer Online Role-Playing Games (MMORPGs). Taylor (2003) conducted research specifically focused on female gamers and discovered that social interaction was a primary motivator for female players. They found that female players valued the social aspects of gaming, such as chatting, forming communities, exchanging ideas, and building relationships. Additionally, female players adapted to the gaming environment, honing their skills and striving for in-game achievements, which further motivated them to play. Customizing avatars to create unique identities within the game world also contributed to their immersion in the gaming experience. Taylor's study revealed that female players are driven by Social, Achievement, and Immersion motivations.

However, it is crucial to recognize that the gaming industry must create spaces that are inclusive and welcoming to female players. Despite the growth in female participation, some gaming environments are still perceived as "unsafe," "unfriendly," or "rustic." Therefore, Taylor's study emphasized that female players prioritize Social motivation, followed by Achievement motivation, with slightly less emphasis on Discovery motivation.

Similar findings were reported by Royse, Lee, Undrahbuyan, Hopson, and Consalvo (2007), who also found that female players were highly motivated by Social factors. This raises the question of whether female players are exclusively motivated by social interactions in gaming. On the other hand, male players have been stereotypically viewed as less focused on social aspects when gaming. Bowman, Schultheiss, and Schumann (2012) conducted a study on male players and found that they tended to be more goal-oriented and less inclined to engage in social interactions during games. However, Yee (2006) argued that male players are not "anti-social" but rather less socially motivated compared to female players. His research showed that male players scored higher in Achievement motivation but were still concerned about social interactions in gaming. Moreover, Jia, Xu, Karanam, and Volda (2016) found that male players displayed emotional stability, scoring high on Neuroticism but lower on Agreeableness compared to females. This suggests that male players engage in social interactions to achieve their in-game goals while maintaining emotional stability. Research by Poels, Cock, and Malliet (2012) delved into the gender identity of female players and its impact on gaming patterns. They found that female players' motivations were associated with their identification with masculine or feminine characteristics. Despite varying gender identities, Social motivation remained the most significant predictor of in-game motivation for female players. Both femininity and masculinity were negatively related to Immersion motivation.

Therefore, gender differences in players' in-game motivation are evident, with female players valuing Social, Achievement, and Immersion motivations. Male players are also motivated by Achievement but may prioritize social interactions differently. While stereotypes about gender differences in gaming persist, research has shown that both male and female players have diverse motivations when engaging in online gaming. However, these findings have primarily focused on Western contexts, and there is a need for research specific to Malaysia and games like PUBG to better understand gender differences in in-game motivation in this region.

Relationship between personality and in-game motivation of players

The existing literature on the interplay between personality traits and in-game motivations among gamers, particularly in the context of online gaming, presents a nuanced perspective. Studies conducted in countries such as Korea and Taiwan have revealed varying relationships between personality traits and gaming motivations. For instance, Agreeableness was associated with Achievement motivation in Korean gamers, while Extraversion correlated with Escapism motivation (Park, Song & Teng, 2011). Conversely, Taiwanese gamers exhibited a different pattern, with Openness relating to Discovery motivation and Conscientiousness to Escapism (Jeng & Teng, 2008). These disparities underscore the impact of cultural practices and values on gamers' personality traits and motivations. Graham and Gosling (2013) paper centered on the popular online game World of Warcraft emphasized the importance of considering specific game contexts. For players motivated by Socialization, higher scores in Extraversion were observed, while Immersion motivation was linked to Openness. Competitive motivation exhibited connections with Extraversion, Conscientiousness, and Openness, but it was negatively associated with Agreeableness and Neuroticism. Notably, Conscientiousness displayed an inverse relationship with Achievement motivation. The literature review highlights the mixed findings across studies, indicating that the relationship between personality traits and gaming motivations is complex and contingent on various factors, including the specific game under investigation and the cultural background of the players. Moreover, there is a research gap in Malaysia, where previous studies have primarily focused on issues like internet addiction (Alam et al., 2014; Chong et al., 2015; Kapahi, Ling, Ramadass, & Abdullah, 2013) and life satisfaction among gamers (Chen et al., 2008), leaving motivation relatively unexplored, especially within the context of popular games like PUBG.

Consequently, this research endeavors to bridge this gap by investigating the personality traits and motivations of PUBG players among college students in the Klang Valley, contributing to a deeper understanding of the dynamics between personality and gaming motivations in the Malaysian context.

Research questions

In the light of the literature reviewed, this paper asks the following research questions:

- i. What is the personality trait of players playing PUBG?
- ii. What is the in-game motivation of players playing PUBG?
- iii. Are there any gender differences in players motivation?
- iv. What is the correlation between personality traits and online game-playing motivation?

Hypotheses

Based on the literature reviewed, the following hypotheses were formulated:

Ho1: There is no significant of gender differences in-game motivation.

Ha1: There is significant difference in gender differences in-game motivation.

Ho2: There is a no significant relationship between personality traits and online game playing motivations.

Ha2: There is significant relationship between personality traits and online game playing motivations.

3. Method

The research design employed in this study is a quantitative cross-sectional approach. To address the research questions, a combination of descriptive and inferential analyses was used. Descriptive analysis was applied to investigate Research Questions 1 and 2. Research Question 3 was examined using inferential analysis, specifically the Independent Sample T test, while Research Question 4 was explored through Pearson R correlation. The study adhered to ethical considerations in its procedure. Participants were approached individually, provided with informed consent forms (refer to Appendix), and were instructed to acknowledge the consent before proceeding with the survey. It took participants approximately 20 to 30 minutes to complete the survey. Regarding the sample, purposive sampling was employed, specifically targeting PUBG players.

Participants

Given the substantial representation of college students among online gamers, the study focused exclusively on this demographic within the Klang Valley region. The sample size comprised 200 participants, consisting of 100 males and 100 females aged between 18 to 25 years, which aligns with the standard age range for undergraduate students.

Instruments

Instruments used in the study encompassed a questionnaire with three sections. Section A collected participants' background information, including gender, age, and PUBG playtime. Section B utilized the Mini-International Personality Item Pool (IPIP) Scales to assess personality traits. This section consisted of 20 items rated on a 5-point Likert scale. Section C measured in-game motivation using Yee's (2006) Motivation for Playing Games questionnaire, comprising three major components (Achievement, Social, and Immersion) and ten subcomponents. Each item in this section was rated on a 5-point Likert scale, reflecting the importance of various motivations during gameplay.

4. Results

We present the study’s findings in two parts: first, a descriptive analysis; and then inferential analyses.

Part 1: Descriptive analysis

The normality test assesses whether a dataset follows a normal distribution, which is crucial for many statistical tests. This assessment can be done through graphical and statistical methods, such as examining Skewness and Kurtosis values. As suggested by Peat and Barton (2005), when the Skewness and Kurtosis values of variables fall within the range of -2 to +2, it suggests that the data can be considered normally distributed. In Table 4.1, the Skewness and Kurtosis values for both Personality Traits and Motivation for play are within this acceptable range for a normal distribution

Table 1: Descriptive for Normality

Variables	N	Skewness		Kurtosis		Z-Skewness	Z-Kurtosis	Normality
	Statistic	Statistic	Std. Error	Statistic	Std. Error			
Extraversion	200	0.12	0.17	-0.58	0.34	0.73	-1.69	Yes
Agreeableness	200	-0.22	0.17	-0.29	0.34	-1.30	-0.86	Yes
Openness	200	0.21	0.17	-0.17	0.34	1.20	-0.50	Yes
Conscientiousness	200	0.20	0.17	-0.48	0.34	1.14	-1.39	Yes
Neuroticism	200	0.19	0.17	0.21	0.34	1.10	0.60	Yes
Socializing	200	-0.13	0.17	-0.11	0.34	-0.73	-0.32	Yes
Relationship	200	-0.19	0.17	-0.56	0.34	-1.13	-1.64	Yes
Teamwork	200	0.00	0.17	0.23	0.34	0.00	0.68	Yes
Roleplay	200	0.15	0.17	-0.35	0.34	0.88	-1.03	Yes
Customization	200	-0.11	0.17	-0.36	0.34	-0.65	-1.05	Yes
Escapism	200	-0.43	0.17	0.14	0.34	-2.52	0.42	No
Advancement	200	0.08	0.17	-0.53	0.34	0.47	-1.54	Yes
Mechanics	200	-0.10	0.17	-0.15	0.34	-0.58	-0.43	Yes
Competition	200	0.29	0.17	-0.32	0.34	1.69	-0.93	Yes
Discovery	200	0.14	0.17	-0.58	0.34	0.82	-1.71	Yes

Note: $Z\text{-Skewness} = \text{Skewness Statistic} / \text{Skewness Std. Error}$
 $Z\text{-Kurtosis} = \text{Kurtosis Statistic} / \text{Kurtosis Std. Error}$

Distribution of respondents

Gathering the demographic profile of respondents is a crucial step as it lays the foundation for subsequent analyses. Among the 200 respondents, half (100) are male, constituting 50% of the total, while the other half (100) are female, also representing 50% of the total respondents. This ensured a balanced distribution of questionnaires across genders. Regarding age distribution, 42 respondents (21%) fall within the 18 to 20 years old category, 53 respondents (21%) are aged between 21 and 23, and the majority, 105 respondents (52.5%), are in the 24 to 25 years old category. The largest portion of respondents falls within the 24 to 25 age range. In terms of weekly gaming hours, 26% of respondents dedicate 1 to 6 hours, 24% allocate 7 to 10 hours, and the majority, 50%, devote 11 to 14 hours.

Table 2: Demographical of respondents

	Frequency	%	Mean
Age			
18 – 20 years	42	21	23.15
21 – 23 years	53	26.5	
24 – 25 years	105	52.5	
Hours of playing in a week			
1 - 6 hours	52	26	9.51
7- 10 hours	48	24	
11 - 14 hours	100	50	

Types of personality traits

Mini-IPIP questionnaire (Donellan, Oswald, Baird, & Lucas, 2006) was utilized to assess the five personality traits of the respondents. The findings reveal that the highest percentage of players exhibit the Agreeableness trait (82.5%), followed by Extraversion (63%), with 48.5% of respondents displaying a high level of Openness and 47% showing a high level of Conscientiousness. Remarkably, 85% of respondents demonstrate a low level of Neuroticism. When examining the mean scores, it becomes evident that Agreeableness is the most prominent personality trait among the respondents (M=3.67), followed by Extraversion (M=3.47), Openness (M=3.15), and Conscientiousness (M=3.11). Neuroticism, conversely, is the least prevalent trait among the respondents (M=2.61). In summary, these results collectively indicate that gamers, in general, exhibit friendly, warm, tolerant, and emotionally stable traits. Further elaboration on these findings will be provided in the subsequent chapter. Table 4.3 below illustrates the distribution of these five traits.

Table 3: Five personality traits of the respondents

Personality Traits	M	SD	N	%
<i>Extraversion</i>	3.47	0.74		
High			126	63
Low			74	37
<i>Agreeableness</i>	3.67	0.6		
High			165	82.5
Low			35	17.5
<i>Openness</i>	3.15	0.62		
High			97	48.5
Low			103	51.5
<i>Conscientiousness</i>	3.11	0.68		
High			94	47
Low			106	53
<i>Neuroticism</i>	2.61	0.57		
High			32	16
Low			168	85

Note: M=Mean; SD=Standard deviation

Types of in-game motivation

This study has delineated three principal motivational components: Achievement, Social, and Immersion, each comprising ten subcategories: Advancement, Mechanics, Competition, Socializing, Relationship, Teamwork, Discovery, Role-Playing, Customization, and Escapism (Yee, 2006). The analysis has unveiled that a majority of the surveyed participants exhibit the

highest motivation in the subcategory of Escapism (73.5%), closely followed by Socializing (58.5%), and Customization (57.5%). Furthermore, approximately 55.5% of the respondents display elevated levels of motivation in Mechanics and Teamwork subcategories. The mean analysis underscores Escapism as the most prominent in-game motivation among the respondents (M=3.62), followed by Socializing (M=3.3), and Customization (M=3.43). In contrast, Relationship motivation ranks as the least prominent (M=2.96).

Table 4: In-game Motivation of the respondents

Component	Sub Component	M	SD	N	%	
Achievement	<i>Advancement</i>	3.25	0.8			
	High			110	55	
	Low			90	45	
	<i>Mechanics</i>	3.29	0.85			
	High			111	55.5	
	Low			89	45.5	
	<i>Competition</i>	3.19	0.72			
	High			101	55.5	
	Low			99	49.5	
	Social	<i>Socializing</i>	3.3	0.78		
		High			117	58.5
		Low			83	41.5
	<i>Relationship</i>	2.96	1			
	High			87	43.5	
	Low			113	56.5	
		<i>Teamwork</i>	3.27	0.68		
		High			111	55.5
		Low			89	44.5
	<i>Discovery</i>	3.24	0.77			
	High			109	54.5	
	Low			91	45.5	
	Immersion	<i>Roleplay</i>	3.24	0.83		
		High			105	52.5
		Low			95	47.5
	<i>Customization</i>	3.43	0.9			
	High			115	57.5	
	Low			85	42.5	
		<i>Escapism</i>	3.62	0.79		
		High			147	73.5
		Low			53	26.5

Note: M=Mean; SD=Standard deviation

Part 2: Inferential analyses

Gender differences in in-game motivation

To assess gender disparities in online-game motivation, an Independent Sample T Test was employed. This statistical analysis was utilized to compare the means of two distinct and independent groups, specifically to discern if there exists substantial statistical evidence supporting significant discrepancies in in-game motivation between genders. The findings unequivocally demonstrate notable gender variations in various facets of in-game motivation.

In particular, males exhibit higher levels of motivation than females across four distinct dimensions of in-game motivation. Firstly, a statistically significant difference emerges in Advancement motivation ($t(198) = 2.4, p = 0.02$), with males scoring higher ($M=3.39, SD=0.8$) than their female counterparts ($M=3.12, SD=0.8$). Secondly, a significant contrast manifests in the scores for Mechanics motivation ($t(198) = 3.4, p = 0.00$), with males registering a higher mean ($M=3.49, SD=0.83$) in comparison to females ($M=3.1, SD=0.82$). Similarly, a notable distinction emerges in the scores for Discovery motivation ($t(198) = 4.53, p = 0.00$), revealing that males surpass females in this aspect, with males scoring higher ($M=3.48, SD=0.69$) than females ($M=3.01, SD=0.78$). Lastly, a significant divergence arises in the scores pertaining to Customization motivation ($t(198) = 2.84, p = 0.01$), elucidating that males exhibit greater motivation in this domain, with males achieving a higher mean score ($M=3.4, SD=0.97$) in contrast to females ($M=3.25, SD=0.8$). To summarize succinctly, male respondents display elevated levels of in-game motivation compared to their female counterparts.

Table 5: T test analysis of in-game motivation based on gender

Subdomain	Gender								95% Confidence Interval of the Difference	
	Male			Female			t	Sig.	Lower	Upper
	M	SD	df	M	SD	df				
Advancement	3.39	0.8	198	3.12	0.8	197.86	2.42	0.02*	-0.49	-0.05
Mechanics	3.49	0.83	198	3.1	0.82	198	-3.4	0.00**	-0.63	-0.17
Competition	3.26	0.79	198	3.12	0.63	187.98	1.46	0.15	-0.35	0.05
Socializing	3.39	0.84	198	3.21	0.7	191.83	1.59	0.11	-0.39	0.04
Relationship	2.88	1.13	198	3.04	0.85	183.58	1.18	0.24	-0.11	0.45
Teamwork	3.24	0.71	198	3.31	0.64	195.72	0.7	0.48	-0.12	0.26
Discovery	3.48	0.69	198	3.01	0.78	195.4	4.53	0.00**	-0.67	-0.27
Roleplay	3.34	0.89	198	3.14	0.75	192.27	1.74	0.08	-0.43	0.03
Customization	3.6	0.97	198	3.25	0.8	190.45	2.84	0.01*	-0.6	-0.11
Escapism	3.62	0.75	198	3.62	0.83	196.2	0.03	0.98	-0.22	0.22

Significant at the level 0.05 * $p < 0.05$,

Significant at the level 0.01 ** $p < 0.01$

Correlation between personality traits and in-game motivation

Pearson correlation analysis was employed to ascertain whether a linear association exists between players' personality traits and their in-game motivation. Hypotheses Ho2 and Ha2 were formulated to elucidate the specific nature of the influence one variable had on the other. The correlation coefficient (r) is instrumental in this analysis, and it can assume values within the range of -1 to +1, with its sign indicating the direction of the correlation, either positive or negative (Pallant, 2007). To gauge the strength of the relationship, Cohen (1998) provides a set of guidelines for interpretation. Significant correlations were observed between certain variables. Specifically, Advancement displayed a significant correlation with Extraversion ($r = 0.4, p = 0.01$), Competition exhibited a significant correlation with Conscientiousness ($r = 0.3, p = 0.01$), and Teamwork demonstrated a significant correlation with Agreeableness ($r = 0.3, p = 0.01$). However, it is noteworthy that the remaining relationships between the variables were found to be weak.

5. Discussion

In the recent PUBG player study, key personality traits have been identified. Agreeableness is the most prevalent, emphasizing collaboration. Extraversion ranks second, linked to active

social interactions. These findings align with past research, though some variations exist, likely due to cultural differences. Notably, PUBG players exhibit low Neuroticism, indicating emotional stability and confidence, a common trait in Asian communities. These results provide insights into player dynamics within the game. On the other hand, in-game motivation of players: Escapism emerged as the top motivator, suggesting that players use the game to escape from real-life stressors. Socializing ranked second, indicating players' interest in connecting with others while striving for in-game success. Customization of avatars and outfits was another significant motivator, with players investing time and money to personalize their in-game appearance. These findings highlight the diverse motivations within the PUBG player community and emphasize the game's role in providing an escape and fostering social interactions.

To discuss the gender differences in in-game motivation, male players scored higher in Advancement, Mechanics, Discovery, and Customization motivations, aligning with their inclination towards achievement-related aspects. However, both genders exhibited similar levels of interest in Social motivation, contrary to prior findings. The study challenged the stereotype that female gamers are primarily motivated by social aspects. Consequently, the hypothesis of no gender differences in in-game motivation was rejected. Lastly our final discussion on this study explored the relationship between personality traits and in-game motivations in PUBG players. The findings highlighted some key correlations. Agreeableness was positively linked to Teamwork, indicating that individuals valuing harmony are more likely to cooperate with teammates. Extraversion was associated with Advancement, suggesting socially adept players are motivated by success. Conscientiousness showed a positive correlation with Competition, indicating determined players are more competitive. Surprisingly, Neuroticism had no significant links with in-game motivations. These findings enhance our understanding of player personality and behaviour in PUBG.

Conclusion

This study is crucial as it deeply explores the Five Factor Model (McCrae & Costa, 1996) and Motivation for Play theory (Yee, 2006) in the local PUBG player context. By combining these theories and addressing inconclusive past research, it aims to provide substantial contributions to our knowledge. Moreover, the study exclusively focuses on how players' personalities relate to their in-game motivation in PUBG, a globally popular online game. This research is highly relevant and valuable for gaining insights in the local context. Future research should broaden its sampling to include PUBG gamers from various regions in Malaysia to ensure a more representative sample. Additionally, it should encompass a wider age range to explore potential age-related differences in gaming motivations. While this study used quantitative methods, future research could benefit from incorporating interviews to gain deeper insights into participants' feelings, perceptions, and opinions on the subject. Longitudinal studies could provide valuable insights into how variables change over time, enhancing the validity and understanding of these relationships. This study marks an initial step in exploring the links between personality and in-game motivation in a local context, and future research should further investigate these relationships to uncover any patterns.

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