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EFFECT OF PERCEIVED VALUE ON SATISFACTION TO MICROTRANSACTIONS IN VALORANT

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ABSTRACT

Current technological developments, especially in the digital game industry, have built new business opportunities in a digital game and caused a new phenomenon that is linked to Microtransaction, which is also found in the Valorant game. There are pros and cons of using microtransactions, as well as limited research on Valorant games, especially those related to the variables of emotional value, social value, functional value, value for money (good price), satisfaction, and purchase intention of the game, so this study aims to examine more deeply about consumer motivation from perceived value to satisfaction to purchase intention, especially in the Valorant game. A total of 333 respondents in the Jabodetabek area have been studied using purposive sampling techniques. This study used Smart PLS 3.0 to test the validity, reliability, and results of the hypotheses. This study looked at the relationship between perceived value to satisfaction and satisfaction with purchase intention, especially in Valorant games. The results of the study stated that social value, functional value, and value for money have an effect on satisfaction, as well as satisfaction affects purchase intention. Meanwhile, emotional value has no influence on satisfaction.

KEYWORDS *Microtransaction, Purchase Intention, Valorant, Perceived Value*

INTRODUCTION

The success of digital games in the games industry makes games a business opportunity developed by game developers, starting from the 1980s, 1990s, to the 2000s (Tomić, 2017). Many game developers take advantage of this

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opportunity by creating new algorithms in online games, namely by presenting virtual purchase transactions that can be made in the game. This gave rise to a new system that allows players to buy in-game necessities using real money such as items, cosmetics and other premium features (Davidovici-Nora, 2013), this phenomenon is known as microtransactions. According to SuperData market research data, microtransactions provide huge revenues and increase year after year in video games. In addition, revenue from microtransactions on Net Ease games ranked highest with $6,668 miliar, and Ubisoft ranked lowest with $636 million (Strickland, 2020). From this figure, it can be seen that the income received by game developers is not small.

With microtransactions, of course, companies are increasingly determined to win the hearts of players and become leaders in their fields. In 2017, there were 43.7 million active gamers in Indonesia, who had spent a total of 880 million, this made Indonesia ranked 16th in the world in terms of game revenue (Newzoo, 2017). Earnings through the sale of virtual goods are increasingly becoming popular income in consumer-oriented online services such as; social networking sites (SNS), massively-multiplayer online games (MMOs), and virtual worlds (Hamari & Lehdonvirta, 2010). In 2020, Riot Games, released a Massively Multiplayer Online First-Person Shooter (MMOFPS) themed game, Valorant. Valorant became the company's first FPS-themed game and at the beginning of the close beta, Riot Games revealed nearly 3 million players every day in games (Kent, 2020). Valorant became one of the game content with 37.5 million hours of watch time on the Twitch streaming platform in the last quarter of 2020 (Clement, 2020). This reflects that Valorant can be a promising revenue opportunity from microtransactions.

The use of microtransactions often causes pros and cons from each player because it tends to change the basic mechanics in the game. Although microtransactions are one of the sources of income for companies, microtransactions are also a considerable source of expenditure for players. Many game developers restrict gameplay by displaying ads or slowing player progress by limiting in-game features and scarce certain items that support the game. Some players may not proceed to purchase items or features sold in the game. However, the results showed that players tend to be willing to pay more in the game because they do not satisfy with the free version, because it turns out that the value they get is lower than expected (Mishra et al., 2018). This means that players can choose to feel more satisfaction or not from a freemium game. Previous research has also shown that players' satisfaction affects their involvement in games and tends to invest more of their time and energy in games (Cheung et al., 2015). Therefore, satisfaction is used in this study as an important fact that needs to be studied for its effect on purchase intention in games.

In addition, satisfaction also affects a person's purchase intention to pay for additional functions of an application (Hsu & Lin, 2016). If there is a certain option in a service or product, users usually choose that option and then create value that can increase satisfaction for themselves (Hellier et al., 2003). The value they feel becomes very important for consumers in determiningthe choice (Konuk, 2019), so it can be said that one factor that affects satisfaction is perceived value (Cuong & Khoi, 2019; Hsiao & Chen, 2016; Kuo et al., 2009). In addition, in the context of

in-app purchases there are four dimensions to perceived value that influence satisfaction and purchase intention in the application (Hsiao & Chen, 2016). Therefore, this study explores perceived value that adopts the theory of perceived value, especially for products and services in four dimensions, namely functional value, emotional value, social value, and value for money (Sweeney & Soutar, 2001). Previous studies on games have also brought these four dimensions of perceived value into their journal (Yoo, 2015; Chandradidjaja, 2019; Purnami & Agus, 2020; Hsiao et al., 2019). Perceived value created in the game for its customers also influences satisfaction so that it can maintain a competitive advantage in the game itself (Zhang & Asahi, 2015).

Several studies have been conducted to explore various motivations in some psychological aspects of microtransactions in games (Hamari et al., 2017; Souza & Freitas, 2017; Shahrivar et al., 2021). There is still limited research discussing the MMOFPS Valorant game (Roldan & Prasetyo, 2021), because the game was just released in the summer of 2020. Thus, the study aims to explore more deeply about the motivation of the perceived value to satisfaction to purchase intention, especially in the Valorant game. The first step we will take is to examine the effects of perceived value and satisfaction, as well as satisfaction and purchase intention. Then we will conduct a survey of the respondents. Third, after the survey data is collected, we will explore and measure the relationship between these variables. Finally, the results will be concluded regarding the influence of each variable based on the hypothesis that has been made.

Due to the microtransaction system that will continue to be developed by video game developers, the results of this research are expected to contribute to a new insight into future research regarding consumer preferences in microtransactions in video games and help video game developers to develop microtransaction models. its good without having to change the basic mechanicsin video games. This research will be described into four parts, namely (1) Theoretical background containing literature review, (2) Research methodology used in this study, (3) Discussion of the results of the questionnaire and its data, and (4) Conclusions and results of our research.

RESEARCH METHOD

In order to meet the objectives of this study, quantitative methods are taken, namely data collection methods in the form of numbers or numeric, analyzed, and drawn conclusions from these data, and aim to reveal relationships or patterns or trends that underlie contextual in research (Albers, 2017). Quantitative methods describe research results more formally when compared to narrative qualitative or descriptive methods, and minimize ambiguity and inaccuracy (Apostolopoulos et al., 2016). This research will be conducted a survey to produce natural information that is statistic as a fundamental part of quantitative methods (Groves et al., 2010). Surveys are conducted by asking respondents in their beliefs, characteristics, opinions, and behaviors that are happening or have occurred. This study conducted a survey to collect data on the intentions of Valorant gamers who had never made microtransactions.

Data will be collected through the dissemination of questionnaires online. This study uses a method that many researchers use because it does not cost much and is more straightforward, that is, cross-sectional, in which it contains data with many subjects in one specific period or point in time (Greve & Golden, 2004; Nurdini, 2006). The population in this study were Indonesians who played Valorant and had never made microtransaction. The research sample is part of a set of traits owned by a population (Sugiyono, 2017). Sample is measured to generalize from the resulting population. While the sampling method used for this study is non-probability sampling with purposive sampling techniques. Non probability sampling is a method that does not provide the same opportunity or probability for each member of the population to be selected as a sample (Hikmawati, 2017). Meanwhile, purposive sampling, also known as selective or subjective samples, is a technique that relies on the researcher's assessment when choosing the people who will be asked to fill out the survey. Thus, purposive sampling can select respondents who are in accordance with the needs of the study, or precisely approach respondents with certain characteristics. In this study, the sampling method was aimed at respondents who had transacted or were still transacting microtransactions in games.

The minimum number in this study used the five-time rule multivariate analysis formula (Hair et al., 2006), so that out of the 30 indicators we had, 150 respondents could meet the requirements. The Likert scale found by Rensis Likert in 1932 was used in this study to measure the attitudes, opinions, and perceptions of each individual or group towards the social phenomena that are the object of research (Sugiyono, 2006). We used Smart PLS 3.0 to analyze the data in this study for the following reasons. First, Smart PLS 3.0 can simultaneously regress data measurements with structural models (Hsiao et al., 2019). Secondly, Smart PLS 3.0 is recognized as more appropriate in research with a constellation exploration approach and has been widely used in studies focused on theoretical development (Chin et al., 2003). Finally, Smart PLS 3.0 requires a relatively small sample size compared to covariance-based structural modeling (Chin, 2000). Therefore, Smart PLS 3.0 is very suitable for data analysis in this study.

Table 1. Questioner Table Measures, Definitions, References for the Current Study

Variables	Items	Measure	References
Emotional Value	EV1	I play Valorant because I feel the game is interesting.	Zhao and Lu (2012)
	EV2	Valorant usually provides new interesting battles and events to play.	
	EV4	Playing Valorant makes me relax and helps improve my brain power.	
	EV5	I play Valorant because I feel the game is interesting.	

Variables	Items	Measure	References
	EV6	Valorant usually provides new interesting battles and events to play.	
Social Value	SV1	If I play the Valorant game, I can chat and share experiences with my friends.	Hsiao, K. L., & Chen, C. C. (2016)
	SV2	Valorant can connect with several social media platforms so that I can share my photos or videos while playing games.	
	SV4	I can chat with other players when I play Valorant.	
Functional Value	FV1	I feel Valorant game service/server is stable so I can play the game anytime I want.	Wei and Lu (2014)
	FV2	I can play Valorant anytime.	
	FV3	I can play Valorant on my PC anytime and anywhere.	
	FV4	I can play the game in my free time.	
Value for Money (Good Price)	VM1	I want to get new agents or weapon skins quickly so I purchase Valorant points. I feel it is so worth it.	Hsiao (2013)
	VM2	Although I bought some Valorant points in the game, I still feel they are a little bit expensive.	
	VM3	I purchased some Valorant Points to draw new agents quickly to help me win the battles in the game.	
Satisfaction	ST2	Playing Valorant gives me a sense of enjoyment.	Hsu and Lin (2016)
	ST3	Playing Valorant makes me feel very delighted.	
Purchase Intention in Game	PI1	I intend to buy Valorant Points in the future	Ghazali et al. (2018)
	PI4	The likelihood that will buy Valorant Points is high	
	PI5	I would consider spending real money to purchase items in the Valorant Points	

RESULT AND DISCUSSION

The sample in this study was 333 respondents, with their respective genders in each respondent consisting of 78.7% male and 21.3% female. The age results of each respondent were dominated by the age group of 17 - 22 years and the domicile of the respondents was dominated by respondents domiciled in Jakarta. The average monthly income of the respondents is in the range of Rp. 4,300,000 - 6,000,000 with a percentage of 37.5% the frequency of doing microtransactions quite frequent. Most of the respondents has experience playing MMO games 68.5% for more than 3 - 5 years. The time spent playing games in a day mostly spends 3 - 5 hours with 65.8% and most respondents as much as 52% are very familiar with Valorant games.

Table 2 Validity & Reliability Test

Variables	Factors	Factor Loading	Average Variance Extracted (AVE)	Cronbach's Alpha	Composite Reliability
Emotional Value (EV)	EV1	0.837	0.590	0.826	0.878
	EV2	0.703			
	EV4	0.757			
	EV5	0.762			
	EV6	0.777			
Social Value (SV)	SV1	0.821	0.642	0.720	0.843
	SV2	0.757			
	SV4	0.824			
Functional Value (FV)	FV1	0.769	0.576	0.754	0.845
	FV2	0.806			
	FV3	0.731			
	FV4	0.728			
Value for Money (Good Price) (VM)	VM1	0.827	0.578	0.635	0.803
	VM3	0.712			
	VM4	0.737			
Satisfaction (ST)	ST2	0.855	0.695	0.562	0.820
	ST3	0.812			
Purchase	PI1	0.871	0.662	0.745	0.854

Intention in Game (PI)	PI4	0.775
	PI5	0.792

By using Confirmatory Factor Analysis (CFA), results are obtained for validity and reliability tests. Convergent validity test requires that the loading factors number be greater than or equal to 0.5 (Bagozzi & Yi, 1988). For cronbach's alpha testing the consistency of therespondents, a figure of more than 0.5 is already said to be good (Chin, 1998). Composite reliability numbers that require more than 0.5 show reliability figures (Khoi & Tuan, 2018). AVE is useful for testing both convergent validity and divergent validity, which requires numbers greater than 0/5 for good models (Rouf & Akhtaruddin, 2018). Based on the table above, of all the validity and reliability tests that exist have met adequate figures, so this research can be said to be valid and reliable.

Table 3 Hypothesis Testing Results

	Hypothesis	Path Coefficients	t - statistics	p - values	Result
H1	Satisfaction → Purchase Intention in Game	0.758	28.141	0.000	Accepted
H2	Emotional Value → Satisfaction	0.117	1.587	0.113	Rejected
H3	Social Value → Satisfaction	0.257	3.361	0.001	Accepted
H4	Functional Value → Satisfaction	0.228	3.339	0.001	Accepted
H5	Value for Money (Good Price) → Satisfaction	0.252	3.866	0.000	Accepted

In this study, the level of significance used was 5%, using a confidence level of 95%, where if the t-value > 1.96, then the hypothesis can have an effect. If the t-value < 1.96, then the hypothesis has no effect. Based on table 4, H1 and 4 are acceptable because the t-stat value > 1.96 & p-value < 0.5. For H3 and 4, the result was rejected because the p-value > 0.05 & T-Stats obtained < 1.96. As for H5, the Good Price variable was rejected because the p-value > 0.05 & T-Stats obtained < 1.96 while the Reward variable was received.

H1 is acceptable, this is in line with Khatoon et al. (2020) and Dash et al. (2020) who found that satisfaction has a positive effect on purchase intention, this is due to the indicator on the satisfaction variable which shows the developer's efforts in providing player satisfaction in supporting the intention to make in-game purchases Valorant. However, different results were obtained in H2, H2 and the results were rejected. this is in line with what Candan (2013) said that to get direct

consumer satisfaction, there is no need for indicators of emotional value. This is also supported by an emotional value indicator that suggests that the efforts of valorant game developers to create interesting experiences that players feel do not have a positive effect on satisfaction.

Then in H3 is acceptable, this result is in line with Hur and Cho (2013) and Yoo and Park (2016) which shows that Social Value has a positive effect on satisfaction, This is due to indicators on social value variables that show players can share experiences when playing and express self-image towards other players, therefore providing separate satisfaction in sharing their social experiences while playing Valorant games. H4 is acceptable, these results are in line with Chiu and Cho's research (2019) which displays Functional value positively affects satisfaction. This is supported by a variable functional value indicator that states Valorant players feel stable performance service when playing Valorant, which makes Valorant's function increase and provides satisfaction in playing. Because of this makes Valorant can be played at any time with good performance.

H5 results are obtained that good price affects satisfaction. These results are in line with research conducted by Eid (2015) and Slack et al. (2020). In this study, the result of being rejected can be caused because Valorant players feel that the purchase of agents and weapon skins is important even though Valorant has provided free items for them, so the right price (in Valorant Points) with a commensurate value (helping players win battles in Valorant) makes them feel satisfaction. They also intend to buy Valorant Points when there is a promo, so this promo also makes them satisfied.

CONCLUSION

This study examines the relationship between emotional value, functional value, social value, value for money, satisfaction, and purchase intention in respondents who have never microtransaction in games Valorant, which shows that H1, H3, H4, and H5 are accepted, while H2 is rejected. According to the test results above, the variable that most affect satisfaction is the good price, so it is recommended to Riot Games and other similar game developers to consider a reasonable price for players.

This study has limited time and area, where the questionnaire is only distributed to respondent in the Jabodetabek area. For future research, it can be suggested to research outside Jabodetabek with a broader scope. Then this research is also only limited to variables that have been studied, namely emotional value, functional value, social value, value for money, satisfaction, and purchase intention. In the future, it is suggested that the authors be able to add other variables that may not have been linked before. More research can also add to the comparison of games of the same genre, so that researchers can make comparisons between one game and another

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