

Drivers Of Purchase Intention And Willingness To Pay Microtransactions In Mobile Legends

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Abstract: This study aims to analyze the antecedents of satisfaction and continued use intention and investigate the effects of satisfaction and continued use intention towards Indonesian Mobile Legends players purchase intention and willingness to purchase for microtransactions. The population of this study was Indonesians who has played and purchased virtual items in Mobile Legends by distributing questionnaires to a total of 235 respondents. The sampling technique was purposive sampling. Data was analyzed using PLS-SEM. The results explored the influence of, social value, quality, and economic value having a positive impact on satisfaction and continued use intention except for social value that showed no effect on continued use intention. Satisfaction also influenced continued use intention and willingness to pay while continued use intention affected purchase intention. This study has succeeded in contributing towards research on the variables that influence satisfaction, continued use intention, purchase intention, and willingness to pay.

Keywords: Antecedents; Satisfaction; Continued Use Intention; Purchase Intention; Willingness to Purchase.

Abstrak: Penelitian ini bertujuan untuk menganalisis anteseden kepuasan dan niat penggunaan berkelanjutan dan menyelidiki efek kepuasan dan niat penggunaan berkelanjutan terhadap niat pembelian dan kesediaan pembelian pemain Mobile Legends Indonesia untuk transaksi mikro. Populasi penelitian ini adalah orang Indonesia yang telah bermain dan membeli item virtual di Mobile Legends dengan menyebarkan kuesioner kepada total 235 responden. Teknik pengambilan sampel adalah purposive sampling. Data dianalisis menggunakan PLS-SEM. Hasil penelitian mengeksplorasi pengaruh, nilai sosial, kualitas, dan nilai ekonomi memiliki dampak positif pada kepuasan dan niat penggunaan berkelanjutan kecuali untuk nilai sosial yang tidak menunjukkan efek pada niat penggunaan berkelanjutan. Kepuasan juga mempengaruhi niat penggunaan berkelanjutan dan kemauan untuk membayar sementara niat penggunaan berkelanjutan mempengaruhi niat pembelian. Penelitian ini telah berhasil memberikan kontribusi terhadap penelitian tentang variabel-variabel yang mempengaruhi kepuasan, niat penggunaan berkelanjutan, niat pembelian, dan kemauan untuk membayar.

Kata Kunci: Anteseden; Kepuasan; Niat Penggunaan Berkelanjutan; Niat Pembelian; Kesediaan untuk Membeli.

INTRODUCTION

The video game industry has been growing consistently throughout the years that digital entertainment has existed. Within that industry, emerges the successful mobile gaming market which has flourished due to the success and popularity of mobile games (Moreira et al., 2014). In 2012, mobile gaming is responsible towards 18 percent of the video gaming industry's overall revenue. Merely 6 years later in 2018, that percentage has increased over 50 percent. Mobile gaming's revenue in 2021 was estimated to be \$93.200 billion; for reference, the revenue for box office and global music market in 2021 were \$21.400 billion and \$57.0500 billion respectively (Tom, 2018). It is truly a magnificent and wealthy segment of the video game industry and its potential continues to balloon as the years elapse. Compared to the past where mobile devices are inadequate and unreliable, current mobile games take advantage of powerful mobile devices of the modern age. This allows a mobile device to act as a hand-held console with advanced graphics and communication technologies (Moreira et al., 2014). However, the most interesting development of how mobile games in the modern day generate profit and capture an audience is through the widespread increase of microtransactions. Microtransactions are payments made within a mobile app usually for purchasing additional content and developers have begun to allocate their cash flows into microtransactions (Tomic, 2017). This research, aims to research the factors that influence a mobile games' player's intent and willingness to pay more for microtransactions.

There are various models implemented in mobile games to generate revenue. The most important models are free to play (F2P), pay to play (P2P), freemium, and paymium (Alomari, 2016). Research shows that freemium or free-to-play design of games especially in the mobile market has come to be the top choice of for online services to apply (Kumar, 2014; Alomari, 2016). The freemium and F2P model is typically where many of microtransactions are found as means for direct monetization. In a freemium model, it is pivotal that games are augmented optimally to balance the configuration of free core services as well as the premium content available so that players may enjoy the base game but look forward to purchasing premium content (Hamari et al., 2017). Microtransactions exist because they bring value to a player's gaming experience whether it be from cosmetic changes to the game design, additional content separate from the free core game, and giving advantageous positions in gameplay (Tomic, 2017).

One of the most popular freemium games in the world, Mobile Legends: Bang Bang or more commonly known simply as Mobile Legends and abbreviated as ML or MLBB, is a mobile multiplayer game developed by Moonton, a chinese video game developer and publisher. In the 14th of July 2016, this game was released in the Chinese, Indonesian, and Malaysian Google Playstore and gained massive popularity particularly in the South East Asian region. Countries that generated the most profit for Mobile Legends are Malaysia, Indonesia, and the United States of America, responsible for 17 percent, 14 percent, and 12.800 percent respectively of the game's total revenue (Craig, 2020).

The reason Mobile Legends show an exceptionally high number of plays is not only because players enjoy playing the game, but also other features available such as chat, voice chat, groups and teams, purchasing character skins, and many more (Mawalia, 2020). Mobile Legends prove to be an interesting game to explore, as one of the most popular

mobile game in the world with microtransactions; researching the players' reasons to developing intention and willingness to spend money may demonstrate the considerable ingenuity of Mobile Legend's design.

Various researches have sought to determine the intention of players to use freemium services and purchase premium content from factors such as a game's perceived value (Hamari, 2020). Other studies have explored other factors such as challenges, overall flow, and skills that motivate players to purchase microtransactions (Ghazali, 2022). However, this research uniquely examines the bonds within enjoyment, social value, quality, and economic value towards the mediators of satisfaction & continued use intention which in turn influences the willingness to pay as well as purchase intention of players playing one of the most popular mobile games in the market "Mobile Legends: Bang Bang".

THEORETICAL REVIEW

Willingness to Pay. The willingness to pay defines the maximum acceptable amount of price a customer is willing to pay for a product or service in relation to its quantity and value is defined as the customer's willingness to pay (Miller et al., 2012; Chuah et al., 2022). The customer's level of willingness or unwillingness to pay the designated price assigned to a particular product reflect the customer's willingness to pay (Breider et al., 2015)

Purchase Intention. Purchase intention shows the measure of a customer's demand towards a product (Morwitz, 2014). Purchase intention shows the level of possibility of purchase making as well as the behavioral tendencies of consumers related to said purchase based on their experiences, use, and desire for a product (Kotler and Keller, 2016; Takaya, 2019). In essence, the willingness to purchase defines purchase intention (Hsu and Lin, 2015).

Enjoyment. Enjoyment describes the state of positive affection that happens when an individual undertakes an experience or activity that satisfies a desire, goal, or need including the need for pleasure, meaning, security, safety, sustenance, esteem, belongingness, love, and many more (Smith et al., 2019). The psychological state that motivates and associates with many positive feelings is Enjoyment (Abuhamdeh, 2020). When all intrinsic needs are satisfied with no remaining unsatisfied needs to impede, a positive valuation is generated which can be identified as enjoyment (Kneer et al., 2022).

Social Value. The social value of a game is defined as its potential ability to augment social self-concept (Hamari et al., 2020; Jin-Liang, Jia-Rong, and Hai-Zhen, 2019). When a person plays a game that contains social aspects, a perceived connectedness is developed which reflect that game's social value for that specific player (Zhao and Lu, 2012).

Quality. The quality of a game can be observed as a user plays the game; the user forms a utility of perceived quality and expected performance of said game (Hamari et al., 2020). The quality of a game describes the value perceived by a user in regards to its innate characteristics and attributes (Kenyon et al., 2014). Quality shows the excellence or

goodness of any product, structure, process, or any other thing that an organization creates for the customers (Martin et al., 2020).

Economic Value. The economic value describes the perceived value from products based on the level of quality and complexity of features within it (Ray et al., 2012). When a customer develops a perception of costs coupled with the service, which is the economic value; it concerns to how inexpensive or reasonably priced a services is perceived to be (Hamari et al., 2020). Moreover, perceived value attained from a product due to the short term or long term reduction of perceived cost can also develop Economic Value (Hamari et al., 2020; Jin-Liang, Jia-Rong, and Hai-Zhen, 2019)

Satisfaction. Satisfaction is defined as feeling positive emotional reaction of contentment and pleasure towards a product or service evaluation (Ameer, 2013; Militina and Achmad, 2020). Satisfaction reflects the emotional response of a customer when their experiences and feelings towards a product or service are combined with expectations and perceived value as customers compare the expected product quality with the perceived product quality as well as various important properties together (Militina and Achmad, 2020). The psychological state as a consequence of comparing expectations and consumption experience will indicate the level of satisfaction (Prasad and Verma, 2022; Militina and Achmad, 2020)

Continued Use Intention. Continued use intention can be described as the intention of a user to continuously use a particular product or service that that has user has already been using. Compared to a user's first time usage of a product or service, long-term continued use is essential to promote the product or service of a company (Wang et al., 2012; Linardi and Herlanto, 2019; Han et al., 2018; Hamari et al., 2020).

Hypothesis Construction

Effect of enjoyment towards satisfaction. Enjoyment is an attribute that affects leisurely satisfaction positively (Bum, 2015). For instance, in education, classes that were conducted in a pleasant and humorous way would affect the students' satisfaction for the better (Hernik et al., 2018). From enjoyment, hedonic, nonhedonic, and various sets of functional needs can be fulfilled and result in great satisfaction (Kneer et al., 2022; Habidin et al., 2022). Based on this established relationship, then:

H1: Enjoyment positively affects satisfaction.

Effect of enjoyment towards continued use intention. Aside from satisfaction, enjoyment also affects the continued use intention of games or services. Engaging customers into continuous activity in games depend on intrinsic psychological factors such as enjoyment and extrinsic factors such as material or reputation gain. (Alsawaier, 2017). Enjoyment is usually a strong predictor and reason on why customers continue to use a service and play games as well as make unplanned purchases. (Hamari and Keronen, 2017; Adeyinka, 2014, Hamari et al., 2015; Jo et al., 2013). Research in instant messaging has shown that users

who perceive a service as enjoyable are more likely to continue using it (Wang et al., 2012). Based on this established relationship, then:

H2: Enjoyment positively affects continued use intention.

Effect of social value towards satisfaction. Research has shown that social value has an important role determining customer satisfaction (Gan and Wang, 2017; Hu et al., 2015; Shao et al., 2022). Acquiring social approval, feeling accepted, and making a good impression on others increases the perception of social value and enables users to develop satisfaction (Gan and Wang, 2017). In the context of social commerce sites, a high level of social value has been seen to increase the user satisfaction towards that site (Hu et al., 2015). Based on this established relationship, then:

H3: Social value positively affects satisfaction.

Effect of social value towards continued use intention. Social value has been shown to enhance continued use intention. Studies have shown that interacting with the community and having a higher social presence influences users of social networking platforms to join and continue using the service (Elverici, 2021; Yohanna, 2020). Technical and social factors directly relate to the continuous usage of the social software (Hong et al., 2013). Developing a strong relationship commitment in a virtual community affects the user's loyalty and continuous usage intention (Shih and Huang, 2014). When observing student's usage of online learning platforms, social interactions has been seen to affect the continuous usage of those online learning platforms (Huang, 2021). In social media, online social value has also been seen to affect continued use (Hu et al., 2015). Based on this established relationship, then:

H4: Social value positively affects continued use intention.

Effect of quality towards satisfaction. The association between service quality and customer satisfaction has been understood to be positively related; service quality exists as a crucial evaluation index to customer satisfaction (Gunawan and Iqbal, 2018; Pontoh, 2014; Saba, 2012). Moreover, the game quality itself paired with good quality service is an antecedent to customer satisfaction (Kinoshita and Matsuoka, 2022). Based on this established relationship, then:

H5: Quality positively affects satisfaction.

Effect of quality towards continued use intention. Past research has shown the impact of technical quality of games towards the continued usage intention of users in social software and online games (Hong et al., 2013; Agag et al., 2019). By understanding quality, it is possible to positively predict continued use intention of free services (Hamari et al., 2017). Quality shows great significance in motivating players to pursue advanced virtual items as well as utilize virtual world transaction platforms to purchase virtual items (Lim and Seng, 2022). Based on this established relationship, then:

H6: Quality positively affects continued use intention.

Effect of economic value towards satisfaction. Previous research has shown that Economic Value affects satisfaction positively (Chuang et al., 2020; Yang and Xia, 2021; Shao et al., 2019). The perceived value of quality in relation to the price of goods, services, quality, and expectations will influence customer satisfaction. Gaining customer satisfaction involves comparing the perceived quality of goods and services prior to purchase with the quality expectations after the purchase (Maeriyana and Rozi, 2019). Based on this established relationship, then:

H7: Economic value positively affects satisfaction.

Effect of economic value towards continued use intention. Economic Value has been linked as a motivator and a positive deciding factor towards continued use intention especially for the free portion of games in a freemium model. (Alsawaier, 2017; Hamari, 2020, Sharma et al., 2020). When a player finds economic value by receiving rewards from an interaction that surpasses the cost of that interaction, then that player is more likely to continue with that interaction (Villa et al., 2018). Based on this established relationship, then:

H8: Economic value positively affects continued use intention.

Effect of satisfaction towards continued use intention. Research has shown that Satisfaction positively affects customer's intention towards continued usage of a product (Hamari et al., 2020; Chea and Luo, 2018; Tsai et al., 2014; Kim et al., 2018). Previous experiences' level of satisfaction with a product can affect the Continued Use Intention heavily (Liao et al., 2015). Based on this established relationship, then:

H9: Satisfaction positively affects continued use intention.

Effect of satisfaction towards purchase intention. Satisfaction is an important driver of Purchase Intention because it is formed when a player feels a certain level of satisfaction (Sirakaya-Turk et al., 2015; Mehmood W., 2015; Gan and Wang, 2017). It is fundamental to understand satisfaction to predict purchase intention because great satisfaction is linked to enhanced product purchase intention (Ady et al., 2019; Tudoran et al., 2012). Based on this established relationship, then:

H10: Satisfaction positively affects Purchase Intention.

Effect of satisfaction towards willingness to pay. Satisfaction has a positive effect on a customer's willingness to pay (Azzahro et al., 2020; Park, 2019; Hartiani, 2021). When a customer feels great satisfaction, they rate transactions and exchanges to have higher outcomes and are therefore willing to pay much more. Customers that feel satisfied feel better about a product and will be willing to pay more for it (Militina and Achmnad, 2020). Based on this established relationship, then:

H11: Satisfaction positively affects willingness to pay.

Effect of continued use intention towards purchase intention. Past research indicate that continued use intention especially of a freemium service predicts the purchase of premium content (Hamari, 2015; Hanner and Zarnekow, 2015; Mäntymäki and Salo, 2013; Hamari et al., 2015; Hamari et al., 2020). It is particularly crucial when dealing with virtual goods in video games as the intention to continue playing a game has continuously demonstrate positive associations with the purchase intent of virtual goods (Mäntymäki and Salo, 2013; Hamari, 2015; Ghazali et al., 2019; Zhou, 2020). Based on this established relationship, then:

H12: Continued use intention positively affects purchase intention.

Based on the twelve hypotheses mentioned, the following research model is proposed

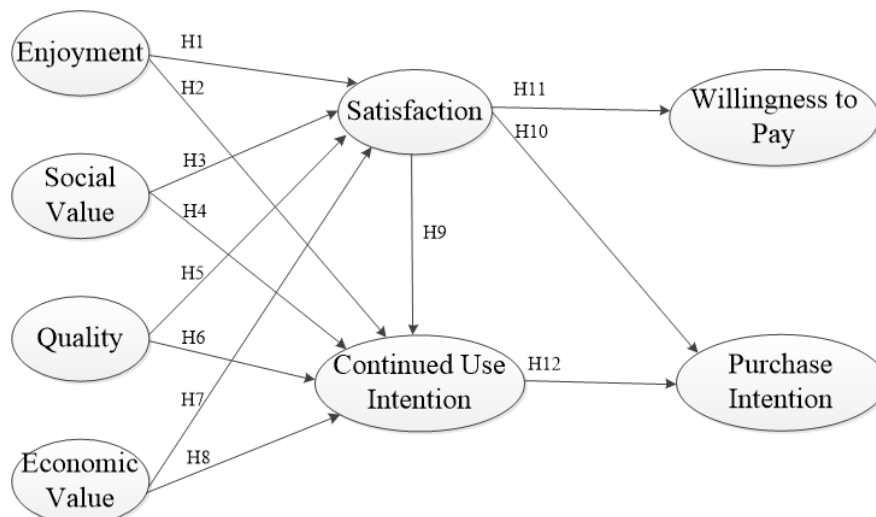


Figure 1. Research Model

Source: (Created for this research, 2022)

METHODS

The population and sample in this study is the players of Mobile Legends in Indonesia. The minimum sample is determined based on the general rule of at least five times the number of indicators (Hair et al., 2017). This study has thirtyseven indicators which defines the minimum value of 185 samples. The questionnaire uses five point likert scale with values ranging from one to five indicating one for strongly disagree up till five for strongly agree. Sample data was collected using questionnaires circulated online. The sampling technique used was purposive sampling for Indonesians who has played and purchase microtransactions in Mobile Legends. Data was analyzed using partial least square-structural equation modeling (PLS-SEM) with the SmartPLS3 program. The thirtyseven indicators included as questionnaire items were adapted from various prior

researches. Enjoyment presents four indicators adapted from (Hamari et al., 2020); and (Adeyinka, 2014), social value presents eight indicators adapted from (Hamari et al., 2020); (Hsiao and Chen, 2016); and (Hamari et al., 2020), quality presents four indicators adapted from (Hamari et al., 2020), economic value presents four indicators adapted from (Chuang, 2020); and (Hsiao and Chen, 2016), satisfaction presents four indicators adapted from (Chuang, 2020); and (Alshibly, 2014), continued use intention presents four indicators adapted from (Hamari et al., 2020); and (Talukder et al., 2021), purchase intention presents four indicators adapted from (Hamari et al., 2020); and (Sumarliah et al., 2022), and finally willingness to purchase presents five indicators adapted from (Velazquez et al., 2015); and (Izogo et al., 2020)

RESULTS

Respondent Profile. The resulting statistics of respondents profile within this study indicates that the majority of respondents reside in the province of Java (72.340 percent). There were much more male respondents (91.910 percent) compared to female respondents (8.090 percent). Most respondents were found to be between the ages of 18 to 24 (64.260 percent). Respondents were found to have mostly been playing Mobile Legends for over 2 years (48.100 percent) and the most common frequency of playing mobile legends in a day was 1 to 2 hours (48.510 percent). More information can be seen in Table 1.

Table 1. Respondent Profile

Profile		Quantity	Percentage	Total
Gender	Male	216	91.910	235
	Female	19	8.090	
Age	13 to 17	22	9.360	235
	18 to 24	151	64.260	
	25 to 34	56	23.830	
	35 to 44	6	2.550	
	Above 44	0	0.000	
	Java	170	72.340	
Domicile	Nusa Tenggara	34	14.460	235
	Sumatera	18	7.660	
	Kalimantan	10	4.260	
	Sulawesi	3	1.280	
	Papua	0	0.000	
	Maluku	0	0.000	
Playing Frequency	Under 1 Hour	43	18.300	235
	1 to 2 Hours	114	48.510	
	Above 2 Hours	78	33.190	
How long has the respondent been playing ML	Under 1 Month	13	5.530	235
	1 to 6 Months	40	17.020	
	7 to 12 Months	25	10.630	
	1 to 2 Years	44	18.720	
	Above 2 Years	113	48.100	

Measurement Model. The validity of the measurement model was validated using convergent validity and discriminant validity. According to (Hair et al., 2017), convergent

validity can be authenticated when the outer loading value is greater than 0.700, the average variance extracted (AVE) is above 0.500 and composite reliability (CR) value is above 0.700. The outer loading value ranged from 7.030 to 9.500, range of AVE was found to be 6.440 to 7.970, while the range of CR was 9.000 to 9.540. Based on these results, convergent validity requirements have been fulfilled. Table 2 shows the result of these values.

Table 2. Convergent Validity of Measurement Mode

Constructs and Items		Outer Loading
Enjoyment (ENJ), AVE (0.771); CR (0.931)		
ENJ1	Playing Mobile Legends is enjoyable	0.863
ENJ2	Playing Mobile Legends is pleasant	0.893
ENJ3	Playing Mobile Legends is exciting	0.882
ENJ4	Playing Mobile Legends is interesting	0.874
Social Value (SOC), AVE (0.723); CR (0.954)		
SOC1	Mobile Legend's players share their feelings and experiences with each other through this mobile game	0.728
SOC2	Mobile Legend's players benefit from the community of users that exist within this mobile game	0.902
SOC3	Mobile Legend's players share a common bond with other Mobile Legend players	0.916
SOC4	Playing Mobile Legend helps me to feel accepted	0.891
SOC5	Playing Mobile Legends leaves a good impression on others	0.808
SOC6	Playing Mobile Legends improves the way I am perceived by others	0.853
SOC7	I can connect with other players through Mobile Legends	0.821
SOC8	I can develop friendships with other players through Mobile Legends	0.867
Quality (QUAL), AVE (0.730); CR (0.915)		
QUAL1	Mobile Legends is of good quality	0.878
QUAL2	Mobile Legends is well made	0.920
QUAL3	I believe Mobile Legends works reliably	0.884
QUAL4	I think Mobile Legends works as I expect it to	0.723
Economic Value (ECO), AVE (0.796); CR (0.940)		
ECO1	Mobile Legend's In-App Purchase items are reasonable priced	0.872
ECO2	Mobile Legends offers value for money	0.883
ECO3	Mobile Legends offers good paid items for the price	0.881
ECO4	Spending Money in Mobile Legend is Economical	0.931
Satisfaction (SAT), AVE (0.797); CR (0.940)		
SAT1	I feel pleased with Mobile Legends	0.888
SAT2	I feel content with Mobile Legends	0.894
SAT3	I feel delighted with Mobile Legends	0.890
SAT4	Playing Mobile Legends puts me in a good mood	0.899
Continued Use Intention (CUI), AVE (0.793), CR (0.938)		
CUI1	I predict that I will keep playing Mobile Legends in the future at least as much as I have played it lately	0.941
CUI2	I intend to play Mobile Legends at least as often within the next month as I have previously played it	0.824
CUI3	I plan to play Mobile Legends during the next month	0.890
CUI4	I will play Mobile Legends in the future	0.903
Purchase Intention (PURCH), AVE (0.728), CR (0.913)		
PURCH1	I predict that I will use money in Mobile Legends in the future at least as much as I have used lately	0.950

PURCH2	I Intent to use money in Mobile Legends at least as often as within the next month as I have previously used	0.913
PURCH3	I plan to use money in Mobile Legends during the next month	0.703
PURCH4	I would tell my friends to spend money on Mobile Legends	0.824
Willingness to Pay (WTP), AVE (0.644), CR (0.900)		
WTP1	I shall return to playing Mobile Legends even if the prices of transactions go up a little	0.717
WTP2	I am willing to pay more than in other games for the benefits I receive from paying in Mobile Legends	0.809
WTP3	I will continue to patronize Mobile Legends	0.792
WTP4	Even if there is a slight increase in the charges for Mobile Legends services/items, I'm willing to pay higher for the items I currently receive from Mobile Legends than what other games charge.	0.817
WTP5	Even if Mobile Legend increases their charges, I will willingly pay it to continue patronizing their services	0.870

Note: AVE(Average Variance Extracted); CR (Composite Reliability)

Discriminant validity was evaluated using the Fornell-Larcker criterion. By using this criterion, the square root value of AVE was compared with the correlations of constructs. When each construct's AVE square root value is greater than the correlation between constructs, then discriminant validity requirements are fulfilled (Hair et al., 2017). Results in Table 3 show that the square roots of AVE value are greater than the correlation coefficient of other constructs. This result shows that discriminant validity requirements have been met.

Table 3. Fornell-Larcker Criterion

	CUI	ECO	ENJ	PURCH	QUAL	SAT	SOC	WTP
CUI	0.890							
ECO	0.764	0.892						
ENJ	0.785	0.835	0.878					
PURCH	0.552	0.281	0.339	0.853				
QUAL	0.648	0.499	0.515	0.680	0.855			
SAT	0.883	0.771	0.786	0.485	0.675	0.893		
SOC	0.732	0.777	0.807	0.314	0.554	0.785	0.850	
WTP	0.687	0.313	0.453	0.785	0.751	0.657	0.472	0.803

When high levels of multicollinearity are found in data, the indicators become redundant and insignificant. The collinearity of the data is evaluated using the multicollinearity test. This test measures variance inflation factor (VIF); if the VIF value is five or higher, then the indicators have multicollinearity issues (Hair et al., 2017). Table 4 shows the results of multicollinearity test with VIF values lower than five, ranging from 1.000 to 4.535 which shows that the indicators in this research do not have multicollinearity issues.

Table 4. Multicollinearity Test

	CUI	ECO	ENJ	PURCH	QUAL	SAT	SOC	WTP
CUI	-	-	-	4.535	-	-	-	-
ECO	3.901	-	-	-	-	3.688	-	-
ENJ	4.454	-	-	-	-	4.203	-	-

PURCH	-	-	-	-	-	-	-	-
QUAL	1.857	-	-	-	-	1.477	-	-
SAT	4.203	-	-	4.535	-	-	-	1.000
SOC	3.646	-	-	-	-	3.391	-	-
WTP	-	-	-	-	-	-	-	-

Structural Model. The structural model uses the structural equation modeling (PLS-SEM) approach. To assess the structural model, hypothesis testing, path coefficients, determinant coefficient, and f-square value was evaluated. Hypothesis testing is done by evaluating the path coefficients. For a hypothesis to be supported, it needs to have a T value of more than 1.968 and also having a P value of less than 0.050.

Table 5 shows the result of evaluating path coefficients for hypothesis testing. Based on the T value and P value data generated by the PLS algorithm, it can be seen whether or not hypotheses within this research are supported or not.

The result for H1 show an original sample value of 0.244 showing the positive effect, the t value of 4.023 which is higher than 1.968 and p value of 0.000 which is less than 0.050 and demonstrates a significant effect. This means that hypothesis one that states enjoyment positively affects satisfaction is supported.

The results for H2 show an original sample value of 0.196, t value of 2.342, and p value of 0.000 which displays a significant positive effect. This means that hypothesis two that states enjoyment has a positive effect on continued use intention is supported.

The results for H3 show the original sample value of 0.246, t value of 5.261, and p value of 0.000 displaying a significant positive effect. This result means that hypothesis three which states social value positively affects satisfaction is supported.

The results for H4 show an original sample value of -0.058, t value of 1.048, and p value of 0.295 which shows that there is no significant effect present. This means that hypothesis four stating social value positively affects continued use intention is not supported in this research.

The results of H5 show the original sample value of 0.301, t value of 8.462, and p value of 0.000 which displays a significant positive effect. This means that hypothesis five which states quality positively affects satisfaction is supported.

The results for H6 show an original sample value of 0.108, t value of 3.238, and p value of 0.001 which displays a significant positive effect. Therefore, hypothesis six stating that quality positively affects continued use intention is supported.

The results of H7 show the original sample value of 0.225, t value of 3.263, and p value of 0.001 which shows a significant positive effect. Thus, hypothesis seven which states that economic value positively affects satisfaction is supported.

The results of H8 show an original sample value of 0.126, t value of 2.828, and p value of 0.005 which indicates a significant positive effect. This means that hypothesis eight stating how economic value positively affects continued use intention is supported.

The results of H9 show the original sample value of 0.604, t value of 8.236, and p value of 0.000 which shows a significant positive effect. Therefore, hypothesis nine which states that satisfaction positively affects continued use intention is supported.

The results for H10 indicate an original sample value of -0.011, t value of 0.090, and p value of 0.928 which shows that there is no significant effect present. Thus, hypothesis

ten stating that satisfaction positively affects purchase intention is not supported in this research.

The results of H11 show an original sample value of 0.657, t value of 14.765, and p value of 0.000 which displays a significant positive effect. This means that hypothesis eleven which states that satisfaction positively affects willingness to purchase is supported.

Finally, the results of H12 show the original sample of 0.562, t value of 5.004, and p value of 0.000 which indicates a significant positive effect. Therefore, this means that hypothesis twelve stating that continued use intention positively affects purchase intention is supported.

Table 5. Path Coefficients and Hypothesis Testing

	Path	Original Sample	T value	P Value	Results	Conclusion
H1	ENJ -> SAT	0.244	4.023	0.000	Significant	Supported
H2	ENJ -> CUI	0.196	2.342	0.020	Significant	Supported
H3	SOC -> SAT	0.246	5.261	0.000	Significant	Supported
H4	SOC -> CUI	-0.058	1.048	0.295	Not Significant	Not Supported
H5	QUAL-> SAT	0.301	8.462	0.000	Significant	Supported
H6	QUAL-> CUI	0.108	3.238	0.001	Significant	Supported
H7	ECO -> SAT	0.225	3.263	0.001	Significant	Supported
H8	ECO -> CUI	0.126	2.828	0.005	Significant	Supported
H9	SAT -> CUI	0.604	8.236	0.000	Significant	Supported
H10	SAT-> PURCH	-0.011	0.090	0.928	Not Significant	Not Supported
H11	SAT-> WTP	0.657	14.765	0.000	Significant	Supported
H12	CUI-> PURCH	0.562	5.004	0.000	Significant	Supported

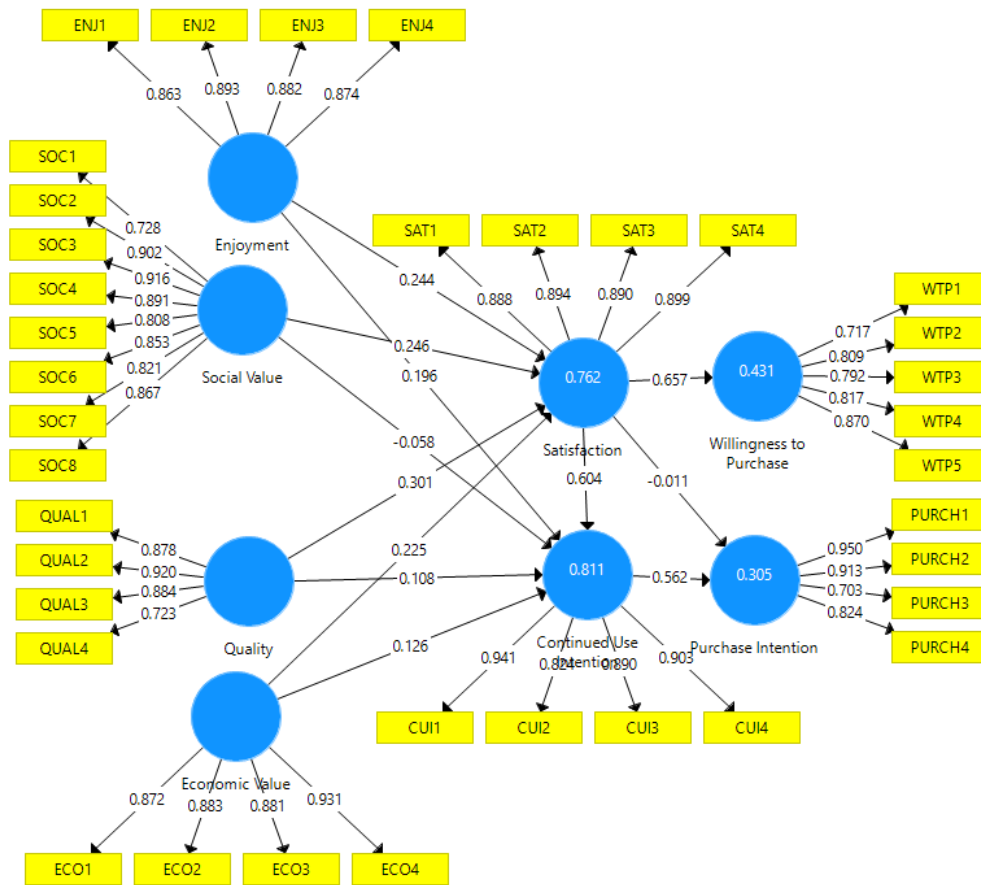


Figure 2. SEM-PLS Structural model analysis for this research showing each construct’s indicator’s outer loading as well as original sample value for each construct relation
Source: (Smart-PLS, 2022)

Next, Table 6 shows the r-square value through a result determination test of endogenous constructs which are continued use intention, purchase intention, satisfaction, and willingness to purchase. The r-square coefficient displays a value between zero and one, when the r-square value is greater, then the finer the appraisal of correctly applied dependent variables (Moore et al., 2018). We can see from Table 6 that (1) the r-square value of continued use intention is 0.811 which is strong effect, (2) purchase intention has an r-square value of 0.305 which is low effect, (3) satisfaction has an r-square of 0.762 which is strong effect, (4) and finally willingness to purchase has an r-square value of 0.431 which is moderate effect (Moore et al. 2018; Henseler et al., 2009).

Table 6. Result Determination Test

	R-square
CUI	0.811
PURCH	0.305
SAT	0.762
WTP	0.431

The f-square value evaluates the influence of exogenous constructs within this research. The category or strength of effects can be categorized into small effects (0.020), medium effects (0.150), and large effects (0.350); f-square values less than 0.020 can be identified as no effect (Hair et al., 2017). As seen from the Table 7, results show that (1) continued use intention has a medium effect on purchase intention. (2) Economic value has a medium effect towards continued use intention and a strong effect towards satisfaction. (3) Enjoyment has a strong effect towards both continued use intention and satisfaction. (4) Quality has a strong effect on both continued use intention and satisfaction. (5) Satisfaction has a strong effect towards continued use intention and willingness to pay. However, satisfaction was observed to have no effect towards purchase intention. (6) Lastly, social value was seen to have no effect on continued use intention but a strong effect on satisfaction.

Table 7. Evaluation of f-square test

	CUI	ECO	ENJ	PURCH	QUAL	SAT	SOC	WTP
CUI	-	-	-	0.100	-	-	-	-
ECO	0.022	-	-	-	-	0.058	-	-
ENJ	0.046	-	-	-	-	0.060	-	-
PURCH	-	-	-	-	-	-	-	-
QUAL	0.033	-	-	-	-	0.257	-	-
SAT	0.460	-	-	0.000	-	-	-	0.758
SOC	0.005	-	-	-	-	0.075	-	-
WTP	-	-	-	-	-	-	-	-

DISCUSSION

This study aims to investigate the effects of satisfaction and continued use intention towards purchase intention and willingness to pay as well as analyze the antecedents that affects satisfaction and continued use intention.

The result on H1 supports the fact that enjoyment has a positive effect on satisfaction. This means that the higher the enjoyment a player experiences playing a game, the higher satisfaction will be. This results support previous studies by (Alsawaier, 2017; Hamari and Keronen, 2017; Adeyinka, 2014, Hamari et al., 2015; Jo et al., 2013) that found that enjoyment is positively related to satisfaction. This means that players playing Mobile Legends that found playing to be enjoyable, pleasant, exciting, and interesting were able to feel satisfied with their experience. By ensuring that a game's experience is able to fulfill all the indicators that make the game fun, the player's satisfaction can be increased (Bum, 2015).

Based on the results of this research, H2 which describes the positive effect of enjoyment towards continued use intention can be supported. This means that the higher the enjoyment of playing a game, the higher a customer's continued use intention will be. This result is consistent with previous studies that enjoyment is a strong predictor on why customers continue to play games (Hamari and Keronen, 2017; Adeyinka, 2014, Hamari et al., 2015; Jo et al., 2013; Wang et al., 2012) and that part of engaging customers into continuous activity depend on the psychological factors such as enjoyment (Alsawaier, 2017). By creating a game that players find to be pleasant, enjoyable, exciting, and

interesting, games can encourage players to come back for more and continue playing. This finding has shown the importance of ensuring that the enjoyment indicators are followed so that customer's perceived enjoyment meets expected levels and they can be retained as well as continue their activities with the game.

Based on the results of H3 the fact that social value has a positive effect on satisfaction can be supported. This means that the higher the social value gained, the higher satisfaction will be. This finding is consistent with previous studies by (Gan and Wang, 2017; Hu et al., 2015; Shao et al., 2022) describing the important role of social value in determining customer satisfaction and how an increased perception of social value level enables the development of increased satisfaction (Gan and Wang, 2017; Hu et al., 2015). Video games need to ensure that players are able to share their feelings and experiences as well as benefit from the game's community to feel satisfied with it. Furthermore, games that help players share a common bond, feel accepted, and improve self-perception helps increase the perceived social value of players towards the game. Also, games need to ensure that players are able to connect and develop friendships by playing. By ensuring that there are ways to be social and increase their social profile through the video game, players can feel much more satisfied after picking up and playing the game. The more effort is put into the social factors of the game, the more player satisfaction can be increased.

The results of H4 describe that social value does not positively affects continued use intention. Due to the findings, the H4 hypothesis is not supported. This result is supported by research by (Hamari and Koivisto, 2015) which states that social factors have no influence towards intentions to continued use intention. Furthermore, studies that have proven to supports H4 by (Elverici, 2021; Yohanna, 2020; Hong et al., 2013; Shih and Huang, 2014; Huang, 2021; Hu et al., 2015) in regards to the positive affect of social value towards continued use intention were done with social media platforms and student learning platforms which have social interactions as a main function and rather differ compared to the social value building options available in mobile games. Furthermore, compared to social media & student platforms, most of the people you play and interact with in a competitive game like Mobile Legends are randomly matched. As such, the effects between social value and continued use intention may also show different results.

Based on the results from H5 the fact that quality has a positive effect on satisfaction can be supported. This means that the higher the quality of a game, the higher the satisfaction. This result supports previous studies by (Gunawan and Iqbal, 2018; Pontoh, 2014; Saba, 2012) that found the positive relation between service quality and customer satisfaction as well as the role of game and service quality as an antecedent of customer satisfaction (Kinoshita and Matsuoka, 2022). Creating a game that is perceived to be of good quality and well-made reinforces the perceived satisfaction that players feel. Moreover, when players perceive the game to work reliably as they expected, they will also feel satisfied because their expectations for the game are met. Ensuring that a game satisfies the quality indicators is important when raising the satisfaction level of players.

Results for H6 support the fact that quality has a positive effect towards continued use intention. This means that the higher the quality of a game, the higher the continued use intention of a user. This result is consistent with previous studies by (Hong et al., 2013; Agag et al., 2019; Hamari et al., 2017) which describes the impact of quality as a predictor towards continued use intention as well as the significance quality in motivating players to

continue playing to pursue advanced virtual items (Lim and Seng, 2022). By having a game that satisfy the quality indicators of it being of good quality, well-made, and working reliably as expected, players are greatly encouraged to continue pursuing further progression in the game which means they will continue playing the game. Thus, it is important to keep in mind and control the quality of the game as it is a strong predictor towards whether or not players will continue to play (Hamari et al., 2017).

The results from H7 support economic value having a positive effect on satisfaction. This means that the higher the perceived economic value, the more satisfied a player will be. This result supports previous studies by (Chuang et al., 2020; Yang and Xia, 2021; Shao et al., 2019) that state the positive influence of economic value towards satisfaction as well as how quality in relation to price of goods, services, quality, and expectations influences customer satisfaction. The study by (Maeriyana and Rozi, 2019) that states how perceived quality and quality expectations affect customer satisfaction also supports H7's findings. Having in-game items and purchases be reasonably priced, worth the price, offer value for money, as well be economical helps the customer to evaluate the transaction much more positively and feel satisfied from the purchases made due to how good the perceived economic value of the transactions are.

Based on the results of H8 the positive effect of economic value towards continued use intention is supported. This means that the higher the perceived economic value, the higher the continued use intention of a user. This result is also consistent with previous studies conducted by (Alsawaier, 2017; Hamari et al., 2020, Sharma et al., 2020) that links economic value as a motivator and positive deciding factor for continued use intention. A study by (Villa et al., 2018) that finds how players that find economic value by receiving rewards that surpasses the interaction cost also is more likely to continue with the interaction also supports the findings on H8. Having in-game purchases that satisfies increased economic value indicators by being seen as more economical with reasonable prices that are worth the price and offer value for money benefits both the game and the player. Having high perceived economic value allows players to develop a positive perception on the game's transaction values and be more likely to continue to play (Villa et al., 2018). Well priced in-game products and services will naturally lead to more playing customers (Hamari et al., 2020)

The results on H9 support the fact that satisfaction has a positive effect on continued use intention. This means that the higher the satisfaction level from playing, the higher the continued use intention of a user will be. This finding is also consistent with previous studies by (Hamari et al., 2020; Chea and Luo, 2018; Tsai et al., 2014; Kim et al., 2018) which found the positive effect of satisfaction on continued use intention as well as research on how previous satisfaction level of a product affects continued use intent heavily (Liao et al., 2015). When players feel satisfied, they resonate with positive feelings of being pleased, content, and delighted which in turn also puts them in a good mood. Players that are able to associate with these satisfaction feeling indicators from playing a game will be more likely to continue playing that game so that they can continue to experience the positive feelings. Having customers with optimal satisfaction levels is an important determinant towards the continued use intention (Tsai et al., 2014)

Results from the testing of H10 found that satisfaction does not positively affects purchase intention. This result is supported by research by (Chuang, 2020) that found that

satisfaction has an insignificant effect on purchase intention due to the nature of digital items being merely additional expenditures which does not lead to players impulsively purchasing items. A study by (Hsu and Lin, 2015) also found that satisfaction does not influence purchase intention due to the need for additional confirmation which impacts perceived value and satisfaction. Without confirmation, the increase of satisfaction and purchase intention may not occur. Moreover, a study by (Bughenau et al., 2020) found that the younger an individual is, the less resources are allocated into spending; individuals undergoing high education are also more likely to allocate more resources into activities surrounding that high education instead of other expenses. The main age demographic of players collected during survey is between the ages of 18-24. Thus, the young demographic most likely spend less and has a higher education or other prioritized expenses to fulfill other than purchasing items in Mobile Legends.

The results of H11 support the fact that satisfaction positively effects willingness to pay. This means that the higher the satisfaction of playing a game, the higher a user's willingness to pay will be. This result is consistent with previous studies by (Azzahro et al., 2020; Park, 2019; Hartiani, 2021) which found that satisfaction has a positive influence on willingness to pay and customers that feel greater satisfaction rate transactions to have higher outcomes and are willing to pay much more for it (Militina & Achmnad, 2020). Customers that feel elevated satisfaction, they are able to evaluate transactions to produce favorable and high outcomes. As such, they would be more willing to pay more to obtain such outcomes. Ensuring that customers align with satisfaction indicators of feeling pleased, content, delighted, being in a good mood helps establish satisfaction levels that will encourage them to expend more money in perceived high valued transactions (Azzahro et al., 2020).

Lastly, based on the results of H12 the fact that continued use intention has a positive effect on purchase intention can be supported. This means that the higher a user's continued use intent to play a game is, the higher the purchase intention. This result is also supported by previous studies by (Hamari, 2015; Hanner and Zarnekow, 2015; Mäntymäki and Salo, 2013; Hamari et al., 2015; Hamari et al., 2020) that indicate how continued use intention predicts purchase intention and how intentions to play a game continuously demonstrate positive associations with purchase intention of virtual goods (Mäntymäki and Salo, 2013; Hamari, 2015; Ghazali et al., 2019; Zhou, 2020). When players have higher continued use intention, this indicates that they predict that they will continue playing the game in the future; ideally at least as much as they have recently. By having a player that wants to continue to play the game, their intent to purchase in-game goods or services is also increased because they know they will continue to play and use such goods or services in the game. Players that will continue to play the game are also more likely to intent to purchase more especially as increasingly various goods or services come out that helps improve the playing experience, As such, the positive relationship of continued use intention and purchase intention of virtual goods is established (Hamari, 2015)

CONCLUSION

Based on the results of this study, it can be concluded that enjoyment, social value, quality, and economic value has a positive influence on satisfaction playing Mobile Legends. The increase and decrease of enjoyment, quality, and economic value also has a positive influence on continued intention. However, social value was proven to not have an effect on user's continued usage intent of Mobile Legends. The level of satisfaction a user experiences has a positive impact on the continued use intent and willingness to pay for microtransactions in Mobile Legends but not towards purchase intention as it has been found that the level of satisfaction has no effect towards purchase intention of microtransactions in Mobile Legends. Lastly, the continued use intention was found to positively affect the purchase intention of microtransactions in Mobile Legends.

The theoretical implications of this research is the addition literature that supports previous researches and additional references regarding the influence of enjoyment, social value, quality, and economic value towards the satisfaction and continued use intention of mobile games and how it further influences purchase intention and willingness to purchase microtransactions in mobile games.

The managerial implications of this study serve to assist game developers and publishers to better understand the factors that maximize purchase intention and willingness to pay by knowing how to increase the player's intent to continue playing the game as well their satisfaction level towards that game. By analyzing the results of this study, individuals or groups who seek to create games should recognize the importance of ensuring that players find the game enjoyable, pleasant, exciting, and interesting to play so that players can feel a high level of enjoyment. Moreover, players should ideally perceive a high social value of the game by ensuring that players are able to share their feelings and experiences through the game, benefit from the game's community, share a common bond with other players, feel accepted through the game, feel as if they can leave a good impression on others by playing this game, connect with other players, and develop lasting friendships with others through playing the game. Increasing perception of social value is important to increase satisfaction levels but it is not necessary for increased continued use intention levels. Additionally, game developers should seek to create a game that is of good quality, well made, works reliably, and works as players expect it to so that they can be satisfied and continue to use it. Furthermore, an increased perception of economic value by reasonably pricing in-app purchases, offering value for money, offering good paid items for its price, and designing the game economically will also boost satisfaction and continued use intention. By understanding the enjoyment, social value, quality, and economic value factors needed, players will end up feeling pleased, content, and delighted as playing the game puts players in a good mood which leads to them feeling satisfied. Then, understanding the enjoyment, quality, and economic value needed to ensure players would intent keep playing mobile legends in the future enables a high level of continues use intention towards the game. Once a player's satisfaction has increased, not only will their willingness to purchase be increased, but also will their continued use intention levels be boosted. Finally, as continued use intentions are increased, a player's intention to purchase in-game items will also be increased.

This study also has limitations as variables that affect the endogenous constructs are limited while there may be many more variables outside of this study that influences purchase intention, willingness to pay, satisfaction, and continued use intention. Moreover, this study uses only Mobile Legends as a basis while other popular games with microtransactions may produce varying results. Future researchers are suggested to explore other variables outside of ones analyzed in this study as well as study other popular games with microtransactions aside from Mobile Legends.

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