



The Influence of Consumer Behavior on Purchasing Decisions for Mobile Legends Online Game Items for STIE Pembangunan Tanjungpinang Students

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ABSTRACT

The purpose of this study is to determine the influence of consumer behavior on the decision to purchase Mobile Legends game items for STIE Pembangunan Tanjungpinang students. The method used in this research is a quantitative method. The object of this research is STIE Pembangunan Tanjungpinang students. Samples were taken as many as 346 respondents using purposive sampling technique. The data analysis technique used is data quality test, classic assumption test, simple linear regression test and hypothesis testing with the help of the SPSS 24 program. The results of this study indicate that the data are valid, reliable and normal. The heteroscedasticity test shows no heteroscedasticity. Based on the hypothesis test, the t test shows that the consumer behavior variable (X) has a significant effect on purchasing decisions (Y). In the coefficient of determination test, consumer behavior has a significant effect on the decision to purchase Mobile Legends game items for STIE Pembangunan Tanjungpinang students by 98.5%. The conclusion in this study shows that consumer behavior has a significant effect on the decision to purchase Mobile Legends game items for STIE Pembangunan Tanjungpinang students. This can be seen in the t value of the consumer behavior variable which is 2.041 and t table is 1.996 so that t value > t table (2.041 > 1.996) and the significance value is less than 0.05, namely 0.042 (0.042 < 0.05)

Keywords: Consumer Behavior, Purchase Decision, Mobile Legends

1. Introduction

Technology is growing and the internet is one of the options for people to interact with each other. With the internet, people can interact with each other online. One of the famous online contents of technology is online games where humans not only play with computers, but they can connect with other humans via the internet. (Stefany & Harisno, 2013). Unlike traditional computer games where only one or two players can play the game on the computer, online games allow many players around the world to play together on one game server over the internet (Stefany & Harisno, 2013).

The significant development of online games has made the online gaming industry a lucrative e-commerce business. Based on data obtained from DFC Intelligence, a consulting company that studies strategic markets, online game players worldwide reached 124 million in 2005 and almost tripled to 376 in 2009. DFC Intelligence estimated the revenue generated from online gaming worldwide to be \$1.9 billion in 2003, increasing to \$15.7 billion in 2010 and growing to \$29 billion in 2016. In Indonesia, based on data from e-Marketer issued by the Ministry of Communication and Information Technology, it is stated that in 2014

internet users in Indonesia reached 83.7 million users. This number continued to grow until it passed the 100 million milestone in 2016. It is estimated that in 2017 there were 112.6 million internet users in Indonesia (Kominfo, 2018). APJII (Association of Indonesian Internet Service Users) statistics state that the number of internet users in Indonesia will continue to increase every year (APJII, 2017). The rapid development of the internet certainly increases business opportunities for online games in Indonesia.

According to Ho and Wu (2012) online games are usually played by users in different places. They share information in a virtual world with an internet connection. In other words, online games are computer games where players interact using an internet connection. The emergence of online gaming dates back to the invention of computer networking methods in the 1970s by the American military. Initially, online games used LAN (Local Area Networking) networks. Technological developments eventually led to online games using a wider network such as www (world wide web) or better known as the internet so that there are a large number of players (multi-player) in an online game. In the last decade, online gaming has grown rapidly due to the tremendous penetration progress of high internet speeds.

Indonesia is one of the countries with the highest revenue from games in Southeast Asia. The number of gamers continues to grow in the country, from casual to militant or hardcore. The number of gamers coming from mobile users accounts for 88.9 percent based on Hootsuite 2021 Report. Technology has affected society and its surroundings in various ways, ranging from the need for technology for business, communication, education and one of them is entertainment such as online games. Online games are a type of game that utilizes computer networks and the internet. Currently, online games can be accessed through android-based smart phones called Mobile Games.

Mobile games are currently in great demand by many people from children to adults. There are so many types of games that can be played, this game can be obtained by downloading it through Google Playstore. Google Playstore is a service provided by Google to download all the applications needed. One of the games that is currently crowded and played is the Mobile Legends game which some time ago was advertised on television and several social media such as YouTube and Instagram.

Mobile Legends is one of the Multiplayer Online Battle Arena (MOBA) genre games, which is a game that provides an arena to compete against other players online. Mobile Legends provides good game graphics with many interesting heroes (characters) to play. This game also provides an item feature that can be purchased and then used to provide additional benefits to the skills (abilities) of the hero that will be used to compete. Not only to add skills, there are some items that are used to add to the appearance of the hero to be more beautiful and attractive, this item is called skin.

Items are non-physical objects or money purchased for use in online communities or online games. Items purchased or delivered through virtual worlds are essentially virtual properties. Items in online games can be avatar, base, or player character customizations that are purchased using real money. The item is a product that can actually benefit and can be logically accepted even though its presence is through various other media/mechanisms such as computers or other digital devices.

Understanding players' desires is an important first step for the industry to gain huge profits in online gaming. According to Li (2012), items are indispensable for players in completing various tasks in the game, so players buy items/ skins. This is because players have a motive to express their characters in online games so they buy virtual goods. In general, consumers are seen as communicators who use symbolic meanings in items/skins to express status levels, class, group members, and character differences in the game. In addition, players buy virtual items only to seek satisfaction and fun. Factors that seek satisfaction and pleasure in the game world are one of the factors that encourage players to purchase items/ skins.

Purchasing items/skins made by players goes through various stages in the buying process. These stages are in the form of need recognition, information search, purchase decisions, and post-purchase behavior. So, in this study researchers try to describe the phenomenon that is being discussed about consumer behavior in the item/skin purchasing process clearly.

Researchers conducted a pre-survey to find out whether the STIE Pembangunan Tanjungpinang students played the Mobile Legend Bang Bang online game. This pre-survey was distributed from November 19, 2021 to November 25, 2021 and the results obtained were 32 students consisting of 17 men and 15 women. The

following pre-survey results obtained that students who play Mobile Legend Bang Bang online games are quite high with a percentage of 87.5% or as many as 28 people, while those who do not play Mobile Legend Bang Bang online games are 12.5% (4 people). This shows that there are many STIE Pembangunan Tanjungpinang students who play the online game, especially with the existence of various kinds of interesting events that attract students to purchase items in the form of skins.

Then to find out that STIE Pembangunan Tanjungpinang students purchase items when playing the Mobile Legend Bang Bang online game, researchers have conducted a pre-survey to students. The results of the researcher's pre-survey of 32 students who filled in stated that 62.5% (20 people) of students purchased the item, while those who did not purchase the item were 37.5% or 12 people. This shows that many make purchases in the Mobile Legend Bang Bang online game. Students who have purchased items in the Mobile Legend Bang Bang online game must have seen various kinds of events in the form of attractive skins. Of all these events, the researcher continued the question to find out which event made the student interested in buying it. The results of the pre-survey that students are more interested in other skin events amounting to 34.4% or 11 people, followed by skin legend as much as 28.1% (9 people), then continued with starlight members as much as 25% (8 people) and the last is skin collector with a total of 12.5% or 4 people. Based on the background described, the purpose of this study is to determine the effect of Consumer Behavior on Purchasing Decisions for Mobile Legend Game Items for STIE Pembangunan Tanjungpinang Students.

2. Literature Review

2.1. Marketing Management

Marketing management is an effort to plan, implement (which consists of organizing, directing, coordinating) and supervising or controlling marketing activities in an organization in order to achieve organizational goals efficiently and effectively. In the marketing management function there are analyzing activities, namely the analysis carried out to find out the market and its marketing environment, so that it can be obtained how big the opportunity to seize the market and how big the threat must be faced (Aaker, 2018).

2.2. Consumer Behavior

According to Engel (2015), consumer behavior is an action that is directly involved in obtaining, consuming, and spending products and services, including decisions that precede and follow these actions. According to The American Marketing Association, consumer behavior is a process of dividing the dynamic interaction of influence and awareness, behavior and the environment in which people exchanges aspects of their life.

2.3. Purchase Decision

According to Kotler and Armstrong in R. Agus Baktiono (2015) customer purchasing decisions are the stage of the buyer's decision process where the customer will finally buy the product.

2.4. Framework of Thought

The framework of this research is as follows:

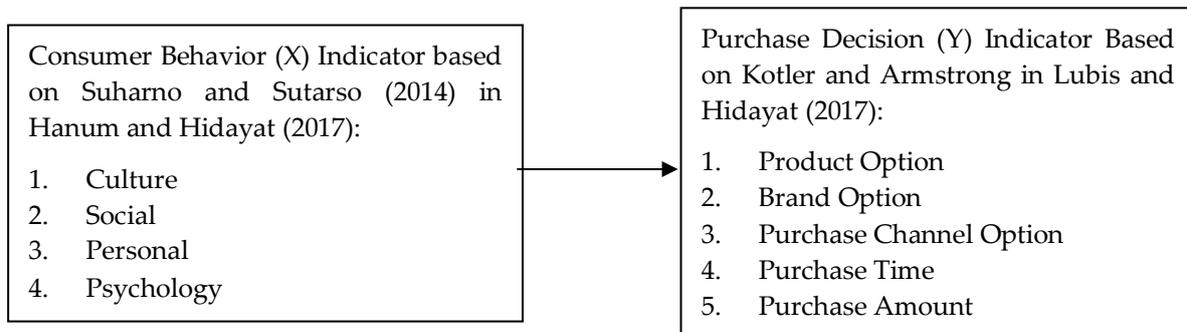


Figure 1. Research Framework

2.5. Hypothesis

This study hypothesizes that consumer behavior, which includes cultural, social, personal, and psychological factors, significantly influences the purchasing decisions of students at STIE Pembangunan Tanjungpinang. These purchasing decisions are evaluated based on indicators such as product options, brand options, purchase channel options, purchase time, and purchase amount.

3. Methodology

3.1. Research Methods

Researchers conduct research using a method that has a quantitative type because researchers want to know the relationship between variables, test theories and look for generalizations that have predictive value. According to Sugiyono (2016) quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative / statistical, with the aim of testing predetermined hypotheses.

3.2. Population and Sampling

According to Sugiyono (2016), population is a generalization area consisting of: objects, subjects, which have certain qualities and characteristics set by researchers to study and then draw conclusions. The population in this study were all STIE Pembangunan Tanjungpinang students in the 2021/2022 academic year with a total of 2,553 students who were actively studying.

Sugiyono (2016) stated that sample is part of the characteristic data that the population has. The sampling process in this study used nonprobability sampling techniques. According to Sugiyono (2016) nonprobability sampling is a sampling technique that does not provide equal opportunities / opportunities for each element or member of the population to be selected as a sample. The sampling technique used in this study is purposive sampling. Sugiyono (2016) said that purposive sampling is a sampling technique with certain considerations. Determination of the number of research samples determined in this study is based on calculations put forward by Slovin (Anwar Hidayat, 2017). Based on the results of these calculations, the sample to be taken in this study was 346 respondents.

$$n = \frac{N}{1 + N(e^2)}$$

3.3. Data Analysis

According to the process, data analysis techniques are grouped into two types, namely quantitative method analysis and qualitative method analysis (Didin Fatihudin, 2015). In testing in this study, researchers used quantitative methods and used SPSS version 26. In connection with the problem stated earlier, an analysis will be carried out based on the data obtained using the following analysis tools: Data analysis testing begins by testing validity and reliability, then conducting a classic assumption test consisting of: normality test, heteroscedasticity test. To determine the effect between variables, simple regression testing, t test, and coefficient of determination (R²) test are carried out.

4. Results and Discussion

4.1. Results

4.1.1. Overview

Mobile Legends: Bang Bang is a MOBA game designed for mobile phones. The two opposing teams fight to reach and destroy the enemy base while defending their own base to control the paths, three "lanes" known as "top", "middle" and "bottom", that connect the bases. In each team, there are five players who each control an avatar, known as a "hero", from their own device. Weaker computer-controlled characters, called "minions",

spawn at the team base and follow three paths to the opposing team's base, fighting enemies and towers. As well as collecting exp to level up heroes useful for game survival.

Mobile Legend is a game on the Android and iOS platforms that is a MOBA (Multiplayer Online Battle Arena) developed and published by Moonton on July 11, 2016 (for China and Indonesia) and November 9, 2016 (for global). This game itself is the best-selling, especially in Indonesia, until July 2022, which downloaded the Mobile Legend game of 500 million downloads. The main objective of the game is to destroy the opponent's base. There are 3 main lanes in the map, namely middle, top, and bottom lane. Each lane is guarded by a Turret that will automatically attack enemy units. Each lane also has a 'barrack' building which if destroyed will make the opponent's creeps/minions stronger. If all the 'barracks' are destroyed, then the opposing team will have super minions that are much stronger than ordinary minions. Outside the lane of each team, there is also a jungle containing jungle creeps that will give buffs to units that defeat the creeps. The game ends when one team's base is destroyed.

4.1.2. Data Quality Test

Table 1. Validity Test Results

No	Indicator	r _{value}	r _{table}	Description
1	Consumer Behavior (X)			
	Statement 1	0,778	0,105	Valid
	Statement 2	0,443	0,105	Valid
	Statement 3	0,698	0,105	Valid
	Statement 4	0,696	0,105	Valid
	Statement 5	0,763	0,105	Valid
	Statement 6	0,625	0,105	Valid
	Statement 7	0,595	0,105	Valid
	Statement 8	0,318	0,105	Valid
2	Purchase Decision (Y)			
	Statement 1	0,754	0,105	Valid
	Statement 2	0,556	0,105	Valid
	Statement 3	0,706	0,105	Valid
	Statement 4	0,679	0,105	Valid
	Statement 5	0,763	0,105	Valid
	Statement 6	0,640	0,105	Valid
	Statement 7	0,560	0,105	Valid
	Statement 8	0,485	0,105	Valid
	Statement 9	0,471	0,105	Valid
	Statement 10	0,747	0,105	Valid

Source: Processed Data, 2024

It can be seen that all statements used to measure the variables used in this study have a correlation greater than r_{table}. For a respondent of 346 respondents, a r_{table} of 0.105 was obtained. From the results presented, it is known that the average r value of each statement item obtained is greater than r_{table}. So, it can be concluded that each statement item is valid.

4.1.3. Reliability Test

Table 2. Validity Test Results

No	Variable	Cronbach Count	Cronbach Alpha	Description
1	Consumer Behavior (X)	0,757	0,60	Reliable
2	Purchase Decision (Y)	0,832	0,60	Reliable

Source: Processed Data, 2024

Based on the table above, it shows that the respondent's answer to the consumer behavior variable has an Alpha coefficient of $0.757 > 0.60$, the organizational commitment variable has an Alpha coefficient of $0.832 > 0.60$, it can be concluded that the respondent's answer from the questionnaire in this study is declared reliable so that it is suitable for use as a measuring tool for reliability research.

4.1.4. Classical Assumption Test

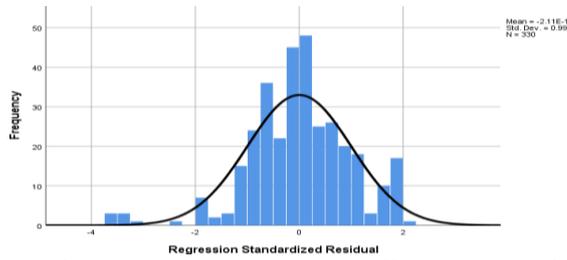


Figure 2. Histogram Normality Test Results

Source: Processed Data, 2024

The picture above shows that the data is normally distributed which is indicated by the histogram graph not experiencing slope either towards the left or towards the right, or in other words the graph is in a balanced state, so it can be concluded that the variables in this study are normally distributed.

4.1.5. P Plot Normality Test

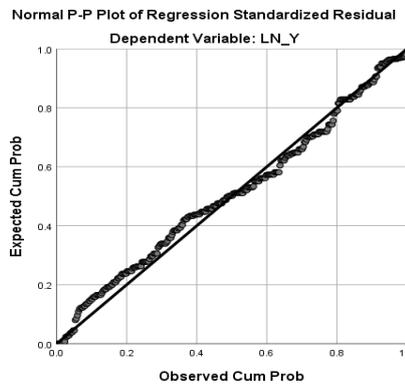


Figure 3. P-P Plot Normality Test Results

Source: Processed Data, 2024

Based on the picture above, it can be seen that the normal graph of the pattern shows the distribution of points around the diagonal line and follows the direction of the diagonal line. This means that the data is normally distributed or the assumption of normality can be fulfilled.

4.1.6. Kolmogorov Semirnov Nomality Test

Table 3. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		346
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	0.15117126
Most Extreme Differences	Absolute	.069
	Positive	.069
	Negative	-.040
Test Statistic		.069
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		

- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Source: Processed Data, 2024

Based on the table above, we can see that the significance of the data is >0.05, where the significance value obtained is 0.200 >0.05. So, it can be concluded that the data is normally distributed.

4.1.7. Heteroscedasticity Test

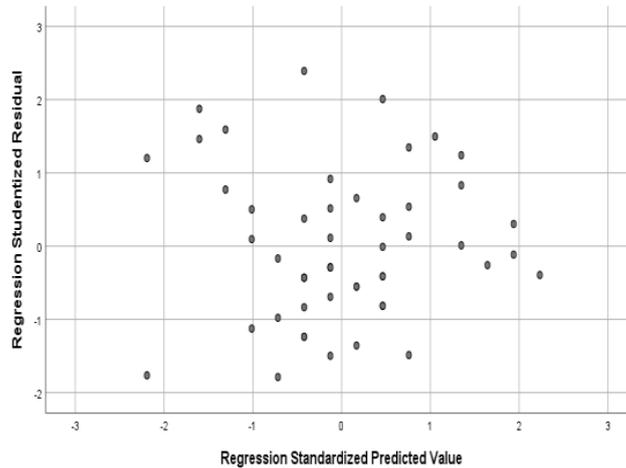


Figure 4. Heteroscedasticity Test Result

Source: Processed Data, 2024

In the figure 4, it can be seen that the dots or bubbles spread randomly and spread over the number 0 on the Y axis. So, it can be concluded that there is no heteroscedasticity in the regression model and can be processed further.

4.1.8. Simple Linear Regression Analysis

Table 4. Simple Linear Regression Analysis Result

		Coefficients ^a			
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	T
1	(Constant)	33.254	1.955		17.007
	Consumer Behavior	.135	.066	.109	2.041

a. Dependent Variable: Purchase Decision

Source: Processed Data, 2024

Based on this table, the regression equation model can be obtained as follows:

$$Y = 33.254 + 0.135X$$

The simple linear regression analysis equation above, it can be stated that:

- a. The large constant value of 33.254 states that if there is no Consumer Behavior (X), the consistent value of the Purchase Decision (Y) is 33.254.
- b. The coefficient value of the Consumer Behavior Regression (X) of 0.135 means that the Consumer Behavior variable has a unidirectional relationship with the Purchasing Decision and each additional unit of Consumer Behavior (X) will increase the Purchasing Decision (Y) by 0.135.

4.1.9. Hypothesis Test (t-Test)

Table 5. t-Test Result

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	T	Sig.
1	(Constant)	33.254	1.955		17.007	.000
	Consumer Behavior	.135	.066	.109	2.041	.042

a. Dependent Variable: Purchase Decision

Source: Processed Data, 2024

Based on the table above, it shows that the results of the partial significance test for each variable show that the t_{value} of the consumer behavior variable is 2.041 and t_{table} is 1.966 so that $t_{\text{value}} > t_{\text{table}}$ ($2.041 > 1.966$) and the significance value is less than 0.05, namely 0.000 ($0.042 < 0.05$), so it can be concluded that H_a is accepted and H_o is rejected, so the consumer behavior variable has a significant effect on purchasing decisions.

4.1.10. Determination Coefficient Test

Table 6. Determination Test Results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.992 ^a	.985	.985	0.701	

a. Predictors: (Constant), Consumer Behavior

b. Dependent Variable: Purchase Decision

Source: Processed Data, 2024

Based on the table above, the test results of the coefficient of determination of the influence of consumer behavior on purchasing decisions can be calculated $Y = R^2 \times 100\%$ or $0.992 \times 100\% = 98.5\%$, the percentage contribution of the influence of the independent variable, namely workload on turnover intention of 98.5%, while 1.5% is influenced by other variables outside this study.

4.2. Discussion

4.2.1. Consumer Behavior Variables

In table 1 regarding consumer behavior variables, the statement item that has the highest weight is the second statement item, namely with a weight of 1397 with an average of 4.03 where buying the item / skin can increase social interest in playing mobile legend games. In addition, the second highest weight is also obtained in the fourth statement item, which is a weight of 1320 with an average of 3.81, this means that where STIE Pembangunan students buy the item / skin because there is encouragement from the surrounding environment which results in them being influenced to buy the item / skin.

4.2.2. Purchase Decision Variable

In table 2 regarding purchasing decision variables, the statement item that has the highest weight is the second statement item, which is a weight of 1391 with an average of 4.02 where STIE Pembangunan Tanjungpinang students buy items / skins in mobile legend because the design looks good and attractive. In addition, the second highest weight was also obtained in the fourth statement item, namely a weight of 1339 with an average of 3.86 where STIE Pembangunan Tanjungpinang students buy items / skins in the new mobile legend game because it is a modern type.

4.2.3. The Influence of Consumer Behavior on Purchasing Decisions for Mobile Legends Bang Bang Online Game Items for STIE Pembangunan Tanjungpinang Students

From the results of research on the influence of consumer behavior on purchasing decisions for mobile legends bang bang online game items for STIE Pembangunan Tanjungpinang students. The following is a description of the discussion of the results of data processing that has been tested using the SPSS program. Regression equation value $Y = 33.245 + 0.135X$. From this equation, it can be seen that the simple linear regression coefficient value is a positive independent variable. From the results of the t-test on the consumer behavior variable (X) on purchasing decisions (Y), it is obtained that $t_{\text{value}} (2.041) > t_{\text{table}} (1.996)$ and has a significance value smaller than 0.05, namely 0.042 ($0.042 < 0.05$), thus consumer behavior partially accepts the H_0 rejected H_a accepted hypothesis which states that consumer behavior has a significant effect on purchasing decisions. For the value of the coefficient of determination (R Square) of 0.992 or 98.5%, while the remaining 1.5% is influenced by other variables not included in this study.

From the test results, it is concluded that the consumer behavior variable has a significant positive effect on the decision to purchase mobile legend game items for STIE Pembangunan Tanjungpinang students, seen from consumer behavior that can influence the decision to purchase items in the mobile legend game, supported by previous research entitled "*The Effect of Advertising, Social Environment and Price on Purchasing Decisions for Mobile Legends Game Items for STIESIA Surabaya Students*", where the study states that the price variable has the highest influence of all independent variables t test and regression shows that advertising, social environment, and price have a significant effect on purchasing decisions for Mobile Legends game items Sutrisno, (2020).

Then it is also supported in previous research by Bawono et al. (2018) with the research title "*The Effect of Consumer Behavior, Brand Image and Promotion on Online Purchasing Decisions on Online Shopping Sites (Case Study on XYZ Online Shopping Site)*" where the study states that consumer behavior has a significant effect on online purchasing decisions on the XYZ Online Shopping Site. So, it can be interpreted that consumer behavior greatly influences purchasing decisions of various things, especially the purchase of items in the Mobile Legend game.

5. Conclusion

Based on the research and discussion that has been carried out regarding the influence of consumer behavior on purchasing decisions for Mobile Legends Bang Bang online game items on STIE Pembangunan Tanjungpinang students. Simple regression test there is a positive influence between one consumer behavior variable (X) and the purchasing decision variable (Y), meaning that the higher the level of consumer behavior, the higher the level of purchasing decisions.

When viewed, the consumer behavior variable (X) obtained a tvalue of 2.041 while the ttable obtained was 1.966, which means $t_{\text{value}} > t_{\text{table}}$, and has a significance value smaller than 0.05, namely 0.042 < 0.05 , which means that there is a significant influence between consumer behavior on purchasing decisions.

Consumer behavior plays a crucial role in influencing purchasing decisions for Mobile Legends consumers, making quality assurance a top priority for the company to maintain a competitive edge. Future researchers are encouraged to expand the number of respondents, as this study only sampled Mobile Legends consumers from STIE Pembangunan Tanjungpinang students who had purchased items in the online game.

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