Uses and Gratification on Virtual Purchase Behavior of Mobile Game Items: An Alternative Approach

Nur Endah Retno Wuryandari[1], Muhamad Al Faruq Abdullah[2], Fredo Arizki Rahmadiansyah[3]
[1,2,3]Manajemen, Universitas Dian Nusantara

ABSTRACT: This study aims to predict the behavior of purchase decisions for virtual goods, especially for PUBG Mobile game players, using a use and gratification approach, as well as perceived value as mediation. The population of this research is PUBG Mobile game players. The conditional sampling technique or purposive sampling amounted to 206 respondents. Samples are game players who have purchased virtual goods. Data analysis using SEM PLS. The results show that utilitarian gratification has the most influence on the PUBG virtual item top-up decision. The contribution of the mediating variable, namely the perceived value, did not succeed in increasing the influence of the independent variable on the topup decision. The research results are expected to be one of the product development strategies for game developers.

KEYWORDS: uses and gratification, perceived value, purchase decision process, mobile game, virtual item

INTRODUCTION

The popularity of smartphone games is increasingly becoming the first choice of entertainment today. Even more interesting, it turns out that some game players are willing to spend their money in addition to buying more internet quota, but also the attributes and virtual support items. Significant changes in consumer behavior of players in making purchases and repurchases, need to be analyzed more deeply (Lee et al., 2018).

Virtual sales of online game items are increasingly generating real income. This gives reasons for the importance of identifying the factors and consumption values that are considered (This condition prompts the question to be investigated what drives not only using online game applications but also will to spend money for the content sold in them. (Hamari, et al., 2018)

Mobile games are video games on mobile devices such as smartphones and the like. (Hsiao and Chen 2016). On smartphones, there are mobile apps features, various additional application features including mobile games, and so on (Ho and Wu, 2012).

As the most popular application, mobile games have a market share of up to 24.86%. (Munadie and Widodo 2019). In its development, the concept of the mobile game economy experienced a mobile is an online mobile game with a battle royale type game stream with a total of 100 players, although players can play independently, alone, and in squad teams (three to four people), and can invite other players as a team.

Indonesia is the second-ranked country in the world that has monthly active players. For game developers, profits come from the downloads and sales available in the game. (Priordata 2019).

The decision to download or buy virtual items from online games is a problem-solving process to meet consumer wants or needs. According to Peter and Olson (2000), Game developers are certainly competing to fulfill and create a competitive attraction to attract users to buy virtual items. This is where the challenge for mobile game monetization comes in.

The German research company Statista published its results in the Global Consumer Survey (2020) that the online game industry revenue in Indonesia reached USS I.29 billion (Rp. 18 trillion) in 2020 and is expected to reach 1.49 billion (Rp. 20 trillion) in 2020. 2021.

Significant growth occurred in mobile games in the form of applications on mobile media by more than 15%. (Global Customer Survey, 2021). In 2017, game developers contributed 1.93 percent of GDP from the creative economy sector with a valuation of Rp. 19.1 trillion. This sector is also able to absorb 44,733 workers (Saifullah - Director of Creative Industries, films, television and animation, Ministry of Tourism and Creative Economy, Tempo - January 2021).

Applications and game developers as a sub-sector are one of the 16 creative economy sub-sectors that support the economy in 2020. Mobile game marketing is found in virtual item purchase transactions which are currently the main selling point for mobile

Uses and Gratification on Virtual Purchase Behavior of Mobile Game Items: An Alternative Approach

games. Virtual items in mobile games can be customized avatars, bases, or player characters purchased using real money. In addition, to get virtual items in mobile games usually, the mobile game developer will give missions to users who complete the mission, they will be given a reward in the form of certain virtual items. (Julius, 2017).

Then the formulation of the problem to be studied is as follows:

1) Does hedonic gratification affect the virtual item top-up decision?
2) Does hedonic gratification affect perceived value?
3) Does utilitarian gratification affect the decision to top up virtual items?
4) Does utilitarian gratification affect perceived value?
5) Does social gratification affect the decision to top up virtual items?
6) Does social gratification affect perceived value?
7) Does perceived value affect the decision to top up virtual items?

The purpose of this study is to test and analyze the influence between the independent variables as the problems

Consumer Behavior

According to Solomon (2018), consumer behavior is the process involved when individuals or groups select, purchase, use products, services, ideas, or experiences to satisfy needs and desires. Consumer behavior is the thing that most underlie consumers to make purchasing decisions.

Based on some of the descriptions above, it can be concluded that consumer behavior includes all actions or activities carried out by someone to find, buy, use, and spend products or services that can provide satisfaction to themselves.

Virtual Items

Virtual Items have become one of the important things in the game. Lin and Sun (2007) describe that there are two types of virtual items, namely, functional properties that are useful for maximizing the ability of game characters to be competent and decorative properties that are useful for changing the visualization of characters in games. Virtual items are props, currency, and some game content that are not provided for free which can be obtained through payments in mobile games (Jia and Wang 2019). According to Julius (2017), virtual items are nonphysical objects or money purchased for use in online communities or games.

Virtual items are obtained by purchasing those contained in games that are played using the currency available in the game. This game currency is obtained by exchanging real money or often called real-money trade (RMT). Virtual items in online games in the form of equipment such as clothes for characters, weapons for them to fight in the game, accessories, and gifts or gifts for their friends

Buying decision

Purchasing decisions are five stages that consumers go through, starting from problem recognition, information search, evaluation of problem-solving alternatives, purchase decisions, and post-purchase behavior (Kotler and Armstrong, 2018).

In making a purchase, it is more influenced by four main psychological factors, namely, motivation, perception, learning, and beliefs and attitudes. (Kotler and Armstrong, 2018).

Uses and Gratification Theory

This theory was first described by Elihu

Katz in 1959. Katz et al., (1974) revealed that this theory has three research objects, namely trying to explain how individuals use media to meet their needs, trying to reveal the main motives for using media by individuals. Trying to find out the positive and negative impacts of using mass media.

According to Hikmat (2018) uses and gratifications are often assumed to be hypodermic development theory. The basic assumption of this theory is that audiences actively seek media that can satisfy their needs. Studies in this field focus on the use of media to get satisfaction or fulfill one's gratification.

According to Li et al., (2015), the satisfaction received by users related to the use of digital games can be grouped into three types, namely:

1. Hedonic Gratification aims to fulfill the user's desires, such as enjoyment and fantasy. Enjoyment gratification is defined as how buying digital goods give users happiness and pleasure when they use digital games. Meanwhile, fantasy is defined as how the purchase of digital goods supports imaginary activities that represent the reality of digital games.

2. Social gratification aims to build and feel a social relationship between users, such as social presence and social interaction. Social presence gratification is defined as the user's sense of physical interaction. Social interaction gratification is defined as the ability to interact with other users in digital games due to the purchase of digital items.

3. Functional Utility Gratification aims to fulfill the functional values of usage, for example, self-presentation and achievement. An achievement gratuity is defined as a user's ability to achieve more achievements than other users in a digital game due to purchasing a digital item. Gratifications Social presentation refers to the purchase of digital items to help players produce a certain selfimage (usually in a socially desirable way) and thereby influence how others perceive and treat the player.

Perceived Value

According to Naami et al., (2017) perceived value is defined as an evaluation of the customer of the costs paid to obtain certain goods and services and the benefits found from certain goods or services. According to Javeed et al., (2017) the perceived value of customers is usually considered as an exchange between two parties, one party benefits from the purchase, and the other party receives benefits by consuming the product or service.

According to Park et al. (2011), there are dimensions of perceived value, namely:

a) Emotional value (character competency value) is the value felt when players buy game items to increase the strength and power of characters in the context of the game.

b) Visual authority value is the value that is felt because they want to look better, feel cared for, and can give the impression to others where players buy game items to decorate their characters, because game items are rare, or to increase their status in the game. the social context of the game.

c) Monetary value is the perceived value game users buy game items because of their economical and reasonable prices.

Relationship Between Variables

Research by Li et al., (2015) found that aspects of pleasure (enjoyment) and fantasy (fantasy) motivate the hedonic behavior of users to buy virtual items offered. One can easily achieve happiness while playing a game, such as building farms and cities. In addition, one can perform several activities and act in different roles in the virtual world, allowing them to do what they cannot do in real life, such as styling their avatar.

In addition, Marder et al., (2019) explain that hedonic, social, and utilitarian motivation are the dominant factors in purchasing non-functional game items. While purchases may be motivated by specific motivations, players can purchase items for hedonic, social, and utilitarian reasons.

H1. Hedonic gratification has a positive and significant effect on virtual item purchasing decisions.

According to research by Mahfuzra et al., (2019), hedonic gratification on the pleasure aspect affects user satisfaction so that they make digital purchases of items because this gratification provides pleasure value and also increases the user's happiness value.

Lee and Xiong (2018) explaining enjoyment (enjoyment) is proven to be an antecedent of interest in using which is driven by user satisfaction. When a player is looking for fun in the game, they may be tempted to buy items to make it more fun. In addition, selfcongruity is important for hedonic consumption because subjective experiences of imagination are often led by the evaluation of product/service images. To narrow the significant gap between the player's perceived actual self-concept and their ideal self, they can purchase virtual goods.

H2. Hedonic gratification has a positive and significant effect on perceived value

Research by Lee and Xiong (2018) found uses and gratification (achievement and self-presentation) to be positively related to buying behavior. In addition, the research by Hostenc et al., (2019) suggests that uses and gratifications have a positive effect on interest in using and purchase intentions. It is concluded that utilitarian gratification has a positive and significant effect on the decision to top up virtual items.

H3: Utilitarian gratification has a positive effect on the decision to top up virtual items.

The results of research by Mahfuzra et al., (2019) found that utilitarian gratification in the customization aspect affects on user satisfaction. When users can to outperform other users in digital games, they will be more satisfied with their use of digital games. However, if users can't excel or, worse, they're beaten by other users, they won't be satisfied with their digital items.

According to Merhi's research (2016), the main motive of individuals who engage in online games is to fulfill desires that they cannot achieve in the real world or to show off their abilities to other players. When they are able to achieve a given goal, they feel satisfied and are more likely to continue playing.

H4: Utilitarian gratification has a positive effect on perceived value

Research conducted by Mahfuzra et al., (2018) obtained the results that social gratification (social precedence and social interaction) has a positive and significant effect on purchasing virtual items. This gratuity serves for the perceived value of digital

items which will further increase user loyalty when using digital items because they feel good socially in a digital game.
Research by Hostenc et al., (2019) suggests hedonic gratification be a positive influence on product purchase. The uses and gratification approach refers to individual behavior towards media that is used as a user pleasure orientation.

H5: Social gratification has a positive effect on the decision to top up virtual items
Research by Lee and Xiong (2018) found that uses and gratifications (enjoyment, self-conformity, achievement, self-presentation) are positively related to buying behavior. Research conducted by Mahfuzra et al., (2018) obtained the results that the independent variable, namely uses gratification, had a positive and significant influence on the purchase of virtual items. Research by Hostenc et al., (2019) suggests that uses and gratification have a positive effect on interest in using and purchase intention.

H6: Social gratification has a positive effect on perceived value
Jia and wang (2019) stated that perceived value in the aspects of functional value, social value, and emotional value affects the buying behavior of virtual goods on mobile games because the high quality of the game helps the sale of virtual goods, besides that emotional value, can provide many benefits in stimulating purchases. consumers of virtual items in mobile games.

Hamari and Kronen (2016) found that the perceived value was positive and significant with purchases. The results showed that the level of satisfaction has a positive impact on purchases.

H7: Perceived value has a positive effect on the decision to top up virtual items
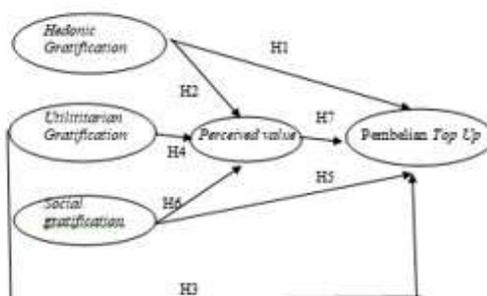

Diagram 1.1 Research Framework

RESEARCH METHODOLOGY
The study was conducted to determine the effect of uses and gratification theory, with perceived value mediating on the player's decision to top up virtual items on PUBG mobile. The research process will be carried out in July 2021 until it is completed.
The population in this study were users/players/players of the PUBG mobile game with a purposive sampling method. With conditions, active PUBG Game players who have purchased virtual top-up items. The number of samples to be taken in this study uses the Hair formula, the number of indicators is 26 multiplied by 8 = 208, which is the minimum sample of respondents.

Data analysis method
This study uses the Variance Based Structural Equation Model where the data management uses the SEM PLS version 3.0 program.

RESULTS AND DISCUSSION
Digital developments provide flexibility for the development of various kinds of online games. PUBG mobile is one of them. This game has a smartphone platform, developed by the Chinese company Tencent Games which is also the development of the Player Unknown's Battleground game under PUBG Corp. in South Korea.
This game can bring together up to 100 players online. The winner is determined with each player fighting in a shrinking area and The last player standing is the winner.

In the PUBG Mobile game, there is a virtual currency called Unknown Cash (UC), which can be used as a medium of exchange to buy Crate, on PUBG Premium and Superior, using the "gacha system". Namely, items obtained through a random system. In the form of clothes, accessories, to weapon skins.

Analysis Characteristics of Respondents
Respondents in this study were maledominated by 68.9%, with the highest age frequency distribution in the age group 21-30 years. This means that the players are of college age until the start of work. Newly followed by the next rank is the high school, age group.

Uses and Gratification on Virtual Purchase Behavior of Mobile Game Items: An Alternative Approach

Based on the average budget used for purchasing virtual PUBG Mobile game items, an average of Rp. 51,000-Rp.150,000 and Rp.251,000-Rp. 350,000. The duration of time for respondents to play PUBG mobile ranges from 30 minutes - 2 hours per day which reaches more than 75% of respondents.)

Testing the outer model by looking at the level of validity and reliability of each indicator, there are 26 items in the questionnaire statement, there are 8 items that are not valid. Because the value of the loading vector is less than 0.7.

The AVE test above shows that there is no problem with convergent validity with all the numbers above 0.5. This data can be continued further testing.

Discriminant validity testing, reflective indicators can be seen from the cross-loading between the indicators and their constructs. The indicator is declared valid if it has the highest loading factor for the intended construct compared to the highest loading factor for the construct.

The loading factor value of each indicator is greater than the cross-loading value, meaning that it is reliable. Therefore, these indicators can be used for further testing.

Likewise, the discriminant validity value of every other construct in the model. Therefore, it can be said to have a good discriminant validity value.

To use a latent variable as a reliable or reliable measuring tool can be seen from the value of the composite reliability.

Table 1.1 Composite Realibility

Goodness of fit model (GOF) describes the level of suitability of the overall model with Gof values ranging from 0-1 with the following interpretation:

Table 1.1 Path Coefisients

	Original Sample	Sample Mean	Standard Deviation	T-Statistics	P Values	Hypothesis
H G → T UP	-0,020	-0,018	0,050	0,411	0,681	Not Supported
HG→ PV	0,092	0,086	0,067	1,377	0,169	Not Supported
SG→ TUP	0,099	0,099	0,055	1,808	0,071	Not Supported
SG → PV	0,417	0,424	0,066	6,336	0,000	Supported
UG → TUP	0,816	0,815	0,033	24,702	0,000	Supported
UG→PV	0,141	0,143	0,063	2,225	0,027	Supported
PV → TUP	0,009	0,008	0,050	0,180	0,857	Not Supported

The results show that the hedonic gratification variable has a negative but not significant effect on the virtual item top-up decision variable. Thus, hypothesis H1 in this study was declared rejected. This shows that players do not take into account the aspects of enjoyment and fantasy in buying virtual items. That is, the activity of buying virtual items is an activity that is interesting and happy to buy virtual items. Then the fantasy aspect such as the existence of imagined activities that represent the reality of the game, imagination as a character in the game, and self-immersion in the game are not the dominant factors in influencing the top-up decisions made by PUBG mobile players.

This is in line with the results of research by Li et al. (2015) which states that hedonic gratification (pleasure and enjoyment) is not the dominant factor that affects users' purchase intentions. In addition, according to research by Hamari et al (2019) that enjoyment of the game and purchase intention for in-game content has a negative association (significant limit) to the decision to top up virtual items.

The results show that the variable hedonic gratification has a significant positive effect on the Perceived Value variable. Thus, hypothesis H2 in this study is accepted. The hedonic gratification dimension shows that the player's hedonic behavior is everything that includes enjoyment and fantasy. Where in this case, all forms of enjoyment such as buying virtual items are interesting activities and being happy to buy virtual items that can lead to user satisfaction to buy virtual items in digital games.

Variable	Composite Reliability	Cronbach Alpha	Description
HG (X1)	0,919	0,825	Reliable
UG (X2)	0,851	0,782	Reliable
SG (X3)	0,838	0,714	Reliable
PV (X4)	0,882	0,835	Reliable
TUP (Y)	0,918	0,888	Reliable

In addition, the fantasy aspect is also an important aspect that creates player satisfaction in buying virtual PUBG mobile game items, where there are imagined activities that represent the reality of the game, imagination as a character in the game, and self-immersion in the game so that it creates player satisfaction in buying virtual game items. PUBG Mobile.

Based on the results of this study, it is in line with research by Lee and Xiong (2018) that uses and gratifications are positively related to purchasing behavior. In addition, according to Mahfuzra et al (2018), enjoyment and fantasy are positively related to user satisfaction.

The Effect of Utilitarian Gratification on Decisions on Top Up Virtual Items, it can be seen that the utilitarian gratification variable on decision variables on top-up virtual items has a significant positive effect, thus hypothesis H3 in this study is accepted. The utilitarian gratification dimension shows that functional is everything that includes achievement/achievement and self-presentation.

Where in this case, all forms of achievement such as being able to beat other players in the game, having more power in the game, and being able to get a high title/status from other players are important things that can lead to virtual item buying behavior.

In addition, the self-presentation aspect is also an important aspect that gives rise to virtual item buying behavior such as wanting to be known by other players as cool gamers, imagination as a character in the game, wanting to be considered by other players as friendly gamers, and wanting other players to recognize their game skills.

Research by Lee and Xiong (2018) found uses and gratification (achievement and self-presentation) to be positively related to buying behavior. In addition, the research of Hostenc et al. (2019) stated that uses and gratification have a positive effect on interest in using and purchasing.

The effect of Utilitarian Gratification on Perceived Value The results of this study indicate that the utilitarian gratification variable has a significant positive effect on perceived value. Thus, hypothesis H4 in this study is accepted. This shows that PUBG mobile players are satisfied with the utility aspect (maximizing use) which includes everything that includes achievement/achievement and self-presentation. Where in this case, all forms of achievement such as being able to beat other players in the game, having more power in the game, and being able to get a high title/status from other players are important things that can lead to virtual item buying behavior.

In addition, the self-presentation aspect is also an important aspect that gives rise to virtual item buying behavior such as wanting to be known by other players as cool gamers, imagination as a character in the game, wanting to be considered by other players as friendly gamers, and wanting other players to recognize their game skills.

The results of this study are in line with research by Lee and Xiong (2018) which found uses and gratification (achievement and selfpresentation) to be positively related to purchasing behavior. In addition, the research of Hostenc et al. (2019) suggests uses and gratifications have a positive effect on interest in using and purchase intentions.

For the results of the Social Gratification research on the Virtual Item Top Up Decision, it can be seen that the social gratification variable has a positive but not significant effect on the virtual item top-up decision. Thus, hypothesis H5 in this study was declared rejected. This shows that players do not see the aspect of social presence and social interaction as an important aspect in buying virtual items. Where in this case that any form of social presence such as supporting offering more help to use purchased virtual items and becoming a member in the game community by buying virtual items is not taken into account by players in buying PUBG mobile virtual items. In addition, aspects of social interaction such as having a network of friends and finding new friends in the game are not taken into account by players in buying virtual items.

Based on the results of this study, it is in line with the results of research conducted by Hamari et al (2019) which states that socializing is not the dominant factor that influences users' purchase intentions. So it is concluded that social gratification does not affect on the decision to top-up virtual item. In addition, according to Mantimaki et al (2019), they found that social relationships did not affect users to purchase digital goods because consumption of digital content could be personal.

For the effect of social gratification on perceived value, the result is that the social gratification variable has a significant positive effect on perceived value. Thus, hypothesis H6 in this study is accepted. This shows that socializing activities in games are things that include social presence and social interactions from user satisfaction. Where in this case that all forms of social presence such as supporting offering more help to use the purchased virtual items and becoming a member in the game community by buying virtual items are important things that can lead to satisfaction for players with social relationships in the PUBG Mobile game. In addition, the aspect of social interaction is also an important aspect that creates player satisfaction such as having a network of friends and finding new friends in the game.

The research above is in line with the research of Li et al (2015) which found that social gratification is an important factor that affects user satisfaction. This gratuity serves to increase the perceived value of digital goods, which further increases the loyalty of users when using digital goods because they feel better socially in digital games. Meanwhile, according to Chen (2016) found uses and gratification (entertainment, filling time, searching for information) has a significant effect on the value that is interpreted.

As for the analysis of the results of the influence of Perceived Value on the Top Up Virtual Item Decision, it is found that the perceived value has no significant negative effect on the virtual item top-up decision. Thus, Hypothesis H7 in this study was declared rejected. This shows that the aspects of perceived enjoyment value, visual authority, and monetary value are not taken into account by PUBG mobile players in buying virtual items. These value perceptions include the value of enjoyment such as enjoying the game being played and being happy when/after playing the game. Then the value of visual authority such as wanting to be seen as more fashionable or stylish and feeling cared for more. In addition, the monetary value such as the price of the item offered is reasonable and the item is more valuable than the price.

Based on the results of this study in line with the research results of Ho et al. (2012) which states that perceived value is not the dominant factor that affects users' purchase intentions. So it can be concluded that perceived value does not affect on the PUBG mobile virtual item top-up decision. In addition, the results of Munadie and Widodo's research (2019) explain that perceived values such as aspects of emotional value, quality value, and monetary value are not determinants of purchases on mobile game applications, even emotional values and monetary values have a negative influence because users still enjoy using mobile games. F free features on the game and players rate the quality and performance of the game still needs to be improved.

Based on the results of the calculation of the total effect of the most influential utilitarian gratification variable in increasing the virtual item top-up decision with a total of 0.817. However, the existence of the perceived value mediating variable cannot strengthen in mediating the effect of utilitarian gratification on top-up decisions, indicated by a beta value <0.5.

Even though hedonic gratification was able to increase its influence on top-up decisions by mediated perceived value. These results shows that perceived value is a suppressor mediator. Which succeeded in changing the negative sign to be positive (Kenny, 2015) even though it was not able to push it to affect the dependent variable.

CONCLUSIONS AND SUGGESTIONS
Conclusion

Based on the results of the research on the effect of uses and gratification theory and perceived value on the decision to top up virtual items. In PUBG Mobile with perceived value as an intervening variable, it can be concluded that: Hedonic gratification does not affect decisions on top-up virtual items. This shows that players do not take into account the enjoyment aspect and fantasy is not taken into account by players in buying virtual items. Hedonic gratification has no effect and is significant on perceived value. This shows that the activity of buying virtual items is an activity that is perceived as less meaningful for playing PUBG mobile games.

Utilitarian gratification has a positive and significant effect on the decision to top up virtual items. This shows that all forms of achievement such as being able to beat other players in the game, having more power in the game, and being able to get a high title/status from other players are important things that can lead to virtual item buying behavior. Utilitarian gratification has a positive and significant effect on perceived value. This shows that players interpret the value of the utility aspect (maximizing use) as everything that includes achievement/achievement and self-presentation.

Social gratification does not affect the decision to top up virtual items. This shows that players are more concerned with aspects of social presence and social interaction is not a dominant factor by PUBG Mobile players in buying virtual items. Social gratification has a positive and significant effect on perceived value. This shows that socializing activities in the game are things that include social presence and social interaction to form player satisfaction.

Perceived value does not affect the decision to top up virtual items. This shows that aspects of perceived enjoyment, visual authority, and monetary value are not taken into account by PUBG Mobile players in purchasing virtual items.

Recommendation

Based on the discussion and conclusions drawn by the author and also this research is expected to reach the significance of practitioners.   Therefore, some practical suggestions are given as follows:

In the uses and gratifications theory (hedonic gratification, utilitarian gratification, and social gratification) according to respondents, it is expected that buying virtual items can offer more help to other players so that social network features that support the process of social connectedness can run well and are expected by users.

From the perceived value variable, it is suggested that users enjoy games played with virtual items in the PUBG mobile game so that the perceived value of the user becomes the user's consideration for buying virtual items that support the game in the PUBG Mobile game. In addition, PUBG mobile must develop flow and game design to meet the perception of players when playing it.

In the decision variable for top-up virtual items, respondents feel that after purchasing a virtual item they will usually immediately buy another virtual item to complete the game item, the PUBG Mobile game developer must update the virtual item that is the user's choice to win the game in the game.

For further research on uses and gratifications, and Perceived value on top-up decisions or purchasing virtual goods, it is better to add other variables such as player motivation, product variety, game quality, character identification, and playing experience to expand similar research.

By examining the effect of uses and gratifications to explain other phenomena both in the digital and conventional fields with a digital approach in further research.

REFERENCES

1) Aulia, S. A., Sukati, I., & Sulaiman, Z. (2016). A review: Customer perceived value and its Dimension. Asian Journal of Social Sciences and Management Studies, 3(2), 150-162.

2) Boxall, A. (2017). Top mobile game publishers earn most revenue from in-app purchases. not advertising. Diambil dari http://www.businessofapps.com/t   op-mobile-game-publishers-earnmost-   revenue-from-in-apppurchases-not-advertising/. Pada tanggal 18 November 2019

3) Chaffey, D. C. (2016). Digital Business Strategies in Blockchain Ecosystems. Springer.

4) Chen, S., & Lin, C. ((2016)). Understanding Group-Buying Websites Continuous Use Behavior: A Use and Gratifications Theory. Journal of Economics and Management 12 (2), 177-204.

5) Cheng-Hsun Ho and Ting-Yun Wu, (2012) Factors Affecting Intent To Purchase Virtual Goods In Online Games, International Journal of Electronic Business Management, Vol. 10, No. 3, pp. 204-212 (2012) Institute of Information Management National Taipei University New Taipei City (23741), Taiwan

6) Choi, H., Ko, M., Medlin, D., & Charlie, C. (2018). The effect of intrinsic and extrinsic quality cues of digital video games on sales: An empirical investigation. Decision Support Systems, 86-96.

7) Dawi, N., Jusoh, A., Streimikis, J., & Mardani, A. (2018). The Influence of Service Quality on Customer Satisfaction and Customer Behavioral Intentions by Moderating Role of Switching Barriers in Satellite Pay TV Market. Economics & Sociology 11(4), 198.

8) Dr. M.Anang Firmansyah, S. M. (2018). PERILAKU KONSUMEN (Sikap dan Pemasaran). Sleman: Deepublish.

9) Fatonah, S., Yulandari, A., & Wibowo, F. (2018). A Review of E-Payment System in E-Commerce. Journal of Physics : Conference Series, 012033.

10) Ghozali, I. (2016). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23. Semarang: Badan Penerbit UNDIP.

11) Hamari, J., & Keronen, L. (2017). Why do people buy virtual goods: A meta- analysis. Computers in Human Behavior 71, 59-69.

12) Ho, C.-h., & Wu, T.-y. (2012). Factors Affecting Intent To Purchase Virtual. International Journal of Electronic Business, 204-212.

13) Hsiao, K., & Chen, C. (2016). What drives in-app purchase intention for mobilegames? An examination of perceived values and loyalty. Electronic Commerce Research and Applications 16, 18-29.

14) IDX Channel.com. Pendapatan Negara dari e-Sport capai Rp 25,1 Triliun. https://www.idxchannel.com/ecot ainment/pendapatan-negara-dariesport-capai-rp251-triliun

15) Javed, F., & Cheema, S. (2017). Customer Satisfaction And Customer Perceived Value And Its Impact On Customer Loyalty: The Mediational Role Of Customer Relationship Management. Journal Of Internet Banking And Commerce 22, 58.

16) Juho Hamari, Aqdas Malik, Johannes Koski & Aditya Johri (2018), Uses and Gratifications of Pokémon Go: Why do People Play Mobile Location-Based Augmented Reality Games?, International Journal of Human–Computer Interaction,

17) Jung-Chieh Lee, Liangnan Xiong, (2018) Exploring Purchase and Repurchase Behavior in Online Mobile Games: A Preliminary Study Permissions@acm.org., ICSEB '18, December 18–20, 2018, Zhuhai, China.

18) Jia, J., & Wang, H. (2019). The Effect of Consumption Values on Purchase Behavior for Virtual Goods in Mobile Game. In: 1st International Symposium on economic Development and Management Innovation (EDMI 2019) Atlantis Press.

19) Kotler, P. &. (2018). Principles of Marketing 17th Global Edition. London: Pearson.

20) Lee, J., & Xiong, L. (2018). Exploring Purchase and Repurchase Behavior in Online Mobile Games: A Preliminary Study. Proceedings of the 2018 2nd International Conference on Software and e-Business, 1-5.

21) Lee, J., Lee, J., Lee, H., & Lee, J. (2015). An exploratory study of factors influece repurchase behaviors toward game items: A field study. Computers in Human Behavior 53(1), 13-23.

22) Li, H., Liu, Y., Xu, X., Heikkilä, J., & Van Der Heijden, H. (2015). Modeling hedonic is continuance through the uses and gratifications theory: An empirical study in online games. Computers in Human Behavior, 261-272.

23) Mahfuzra, H., Hidayanto, A., Hapsari, I., & Utari, P. (2019). What drives the intention to repurchase digital items in digital games? An integration ofuses and gratifications theory and the expectation-confirmation model. International Journal of Business Information Systems 30 (3), 253276.

24) Mahi. (2018). Jurnalistik: Literary Journalism, . Jakarta: Prenadamedia Group.

25) Mäntymäki, M. I. (2020). What drives subscribing to premium in freemium services? A consumer value-based view of differences between upgrading to and staying with premium. Information Systems Journal 30, 295-333.

26) Munadie, N., & Widodo, T. (2019). Anteseden yang Mempengaruhi Mobile Game Loyalty dan Dampaknya terhadap In-App Purchase Intention. BISMA (Bisnis dan Manajemen) 11(2), 131-154.

27) Nasution,, M., Rossanty, Y., Ariffin, k., & Zaini, N. (2019). An empirical examination of the factors influencing consumer's purchase intention toward online shopping. Journal of Business & Retail Management Research 13.

28) Newzoo. (2019, November 12). Games Market Trends and Publishers to Watch in Southeast Asia: The World's Fastest-Growing Mobile Games Market.

29) J.Paul Peter & Jerry c. Olson (2000). Consumer Behavior Perilaku Konsumen. 2nd. ed. 4 Jakarta: Penerbit Erlangga.

30) Prioridata. (2019). Revenue Top Global Battle Royale PUBG. Diambil kembalidari https://blog.prioridata.com/mobile -games-market-q3-2019-review. Pada tanggal 18 November 2019

31) Pujadas-Hostench, J., Palau-Saumell, R., Forgas-Coll, S., & Matute, J. (2019). Integrating theories to predict clothing purchase on SNS. Industrial Management and Data Systems, 1015-1030.

32) Solomon. (2018). Consumer Behaviour Buying Having and Being 12th Global Edition. London: Pearson.

33) Sugiyono. (2018). Metode Penelitian Manajemen. Bandung: Alfabeta.