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Exploring the Dynamics of Mobile eSports Adoption: Insights from the UTAUT2 Model in the Indonesian Context

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Abstract. This research delves into the intricate dynamics shaping the adoption of mobile eSports among consumers in Indonesia, with a specific focus on the UTAUT2 model's dimensions of Effort Expectancy, Social Influence, Habit, and Flow. Employing a quantitative methodology, the study engaged 109 participants in completing comprehensive questionnaires, enabling the collection of robust data for subsequent analysis through Structural Equation Modeling. The findings of this study illuminate compelling insights. Notably, the influence of Social Impact and Habit emerges as pivotal drivers shaping Behavior Intention within the mobile eSports realm. Additionally, the study underscores the significant impact of Behavior Intention on actual Use Behavior, further accentuating the intricate interplay between psychological constructs and observable actions in the context of mobile eSports consumption. This research contributes to a nuanced understanding of the determinants governing the adoption of mobile eSports, shedding light on how psychological factors interact to influence Behavior Intention and eventually manifest as observable Use Behavior. These insights hold implications for stakeholders and practitioners within the mobile eSports industry, guiding strategic interventions aimed at enhancing adoption and engagement among the Indonesian consumer base.

Keywords: Effort Expectancy, Social Influence, Habit, Flow, UTAUT, eSport, Mobile Game

1. Introduction

eSport has been defined as a sports competition conducted with electronic and technological systems and organized in a structured system. The eSport itself is organized for a specific genre (Chiu et al., 2021). The first international eSport competition held in Indonesia is World Cyber Games (WCG) which was held in 2002. The event was attended by 9.000 contestants and more than 13.000 visitors. In 2018, eSport is officially recognized as a branch of sports performance at the 2018 Asian Games which were held in Jakarta and Palembang, Indonesia. The Indonesian government finally recognized eSports as an official sport in 2020, which assisted in legitimizing the sector and fostering its expansion.

Globally, the eSport economy generated revenue of 1,221.1 million USD (Fortune Business Insight, 2022). With the Compound Annual Growth Rate from 2022-2029 around 28.1%, the revenue is predicted to be as big as 5,4827 million USD by 2029. The industry is growing because of the rising popularity of the games and a growing number of eSport events with huge prize pools to attract new eSport players and eSport viewers. There is also substantial investment in sponsorship, creating a growth opportunity for the market. The revenue of the eSport industry in Indonesia is projected to reach 8.36 USD by the end of 2022 (Statista, 2022). The revenue is expected to show an annual growth rate of 9.71% (2022-2027). The CEO of Indonesian eSport team RRQ Andrian Pauline said that the eSport industry in Indonesia will continue to growth and no longer viewed negatively in the society (Vero, 2022). Over the course of the last few years, eSports has developed into a platform that is genuinely influential in terms of its ability to help people build identities, establish online presences, and connect with the outside world.

The number of eSport fans or enthusiast is growing. The number of eSport audience in 2020 was 435.7 million viewers, growing to 489.5 million in 2021 and predicted will grow to 532 million viewers in 2022. With CAGR of +8.1%, the viewer is expected to pass 640.8 million viewers by 2025 (Newzoo, 2020). There is some new eSport title that gain popularity, such as Valorant from Riot Games and Mobile Legend: Bang Bang from Moonton. 6 from 10 most popular and watched matches in 2021 was from mobile game that is very popular in Southeast Asia especially Indonesia (Belous, 2021).

The gaming era in Indonesia has mostly began since the early of 2000 where there is a boom of internet café appearing in almost every area, especially in Java. During this time, the game play using PC to play multiplayer game. The two most played game are DOTA and Counter Strike, which appear in almost every internet café (or '*warnet*' in Indonesian term). As time goes by, the development of the network connection in Indonesia is getting better. The era of mobile game started with the arrival of Mobile Legend 2016. The cheaper mobile phone compared to PC set to play also help the development of mobile game in Indonesia (Wibowo, 2021).

Indonesia features a native esports industry, and the country's top events include the Free Fire Indonesia Masters and the PUBG Mobile Pro League Indonesia (Esport Insider, 2022). According to research conducted by data.ai (2023), Indonesia is the third largest mobile game market after India and Brazil. The consumer spends on mobile game increased from US$0.26 billion in 2019 to US$0.37 billion in 2022. One of the most popular mobile game is Mobile Legend, with the highest mobile game with monthly active user and consumer spent the most in 2022. By August 2021, the active player of Mobile Legend (mobile game) in Indonesia is 34 million users from a total of 90 million global user (Mediaindonesia.com, 2022).

Only a few research on the gameplay involvement of esports consumers have been done, despite the fact that recent esports studies have examined various disciplines and described esports phenomena (W. W. Jang et al., 2021). More study is required to examine the variables affecting esports acceptance in Indonesia using models like the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). This study may aid in identifying certain obstacles and factors that influence acceptability as well as offer suggestions for boosting the broad use of esports in the nation.

Understanding players' intentions is crucial for game producers. Game developers survive by getting players to play. The purpose of this research is to discover the most important factors that

influence players' inclination to play online mobile games. This study examines factors that affect game intention. We will analyze the effects of four independent variables, which are effort expectancy, social influence, habit, and flow toward use behavior mediated by behavior intention. Previous research about technology acceptance and UTAUT still show several inconsistencies in the significance of the factor that influence use behavior (Guo & Barnes, 2011; W. W. Jang & Byon, 2020; Ramírez-Correa et al., 2023).

2. Literature Review

2.1.Unified Theory of Acceptance and Use of Technology 2

In order to better understand the user acceptance procedures of information systems and to aid in the evaluation of new systems prior to adoption, Fred Davis created the Technology Acceptance Model (TAM) in 1985 (Davis, 1989). In many different contexts over the past few decades, TAM has dominated models used to analyze user acceptability of information technologies. The model developed during recent years. This is not surprising as the model was built through 1980s research on word-processing software adoption in office environments, which is easier than future technological acceptance. The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Viswanathan Venkatesh and colleagues, brought together conceptual and empirical commonalities from earlier theories regarding the Technology Acceptance Model.

Venkatesh et al. offered UTAUT 2 to modify UTAUT to adapt it to a consumption environment rather than its professional framework with the addition of Price Value, Habit, and Hedonic Motivation as the new construct (Venkatesh et al., 2012; Venkatesh & Davis, 2000). This model explained 20% of consumer behavior in relation to the behavior intention. This model has seen a great deal of use, development, and replication since UTAUT's initial publication.

A study based on UTAUT 2 model conducted by Jang & Byon (2019) state that Social Influence and Habit were not found to be significant toward Behavior Intention in the context of eSport consumption in the United State. Another study conducted by Batucan et al. (Batucan et al., 2022) showed that Social Influence and Effort Expectancy in the UTAUT model were found not to be significant in the adoption of online learning in Philippines.

UTAUT2 was used in this study as esports feature user-interface-facilitated interactions and visual feedback from devices like TVs or monitors. Venkatesh et al. (2012) propose UTAUT2 as a suitable theory for understanding consumer adoption, use, and disposal of new technology. As eSports customers embrace new hardware and software, UTAUT2 can explain the antecedents of behavior intentions (W. (William) Jang & Byon, 2019). This study mainly focusing on the usage of Effort Expectancy, Social Influence, and Habit from the original UTAUT 2 model with the addition of Flow as the independent variable, Use Behavior as the dependent variable and Behavior Intention as the mediating variable.

2.2.Effort Expectancy

Effort Expectancy is associated with the degree of ease an individual for using new technology. It is the level of the convenience and usability that the user feels when they are using specific information system (Han & Kim, 2019; Venkatesh & Davis, 2000). Technology is considered as less useful to the user when it requires more effort to use. In this research, it is defined as the ease of use of an eSport gamer related to the technology acceptance for playing game such as mobile phone. If during the process of the adoption of the technology became too difficult or too hard, he/she may give up on trying. According to Jang and Byon (2020), effort expectancy is an important construct for predicting esports behavior intention, suggesting that the difficulty of learning and playing mobile games can vary based on the genre of the game.

Effort Expectancy is considered have positive relationship toward Behavior Intention in the

context of eSport game in United State (Batucan et al., 2022; W. (William) Jang & Byon, 2019), although in another study it has no direct effect to Behavior Intention for elderly group in Chille in adopting new technology post COVID19 (Ramírez-Correa et al., 2023). Other research suggest that Effort Expectancy have significant impact on Behavior Intention in the context of mobile payment in Indonesia (Winata & Tjokrosaputro, 2022).

2.3.Social Influence

Social Influence is the extent to which other party such as family or friends believe that they should use the technology (Venkatesh et al., 2012). It is also defined as ways in which the stakeholders behave according to the demand of social environment (Abbasi et al., 2021). Individual behavior is influenced by social influence especially if it is a positive recommendation. Social Influence might have impact for the eSport consumer. They are more likely to play a game when their friends invite to the eSport game. According to Venkatesh (2012), Social Influence has significant and positive effect toward Behavior Intention.

According to William et al (2022), Social Influence were found to be significant toward intention to adopt new technology in the context of farming industry in Indonesia. Other study also suggest that Social Influence is a significant determinant toward Behavior Intention in adoption of e-Learning in Damascus (Alsakka & Orabi, 2023) and in the financial services in Korea (Yoon & Joung, 2020). While previous study mentioned before showing significant relationship, a study state otherwise. In research conducted by Jang & Byon (2019) in the context of eSport in United State Effort Expectancy were not having significant impact toward behavior intention.

2.4.Habit

From the standpoint of psychology, habit is considered as a fixed way of feeling, willing, and thinking that acquired from previous mental or repetitive experience (B. R, 1903). Habit is also defined as a mode of mental functioning in which repeated process are predominant in consciousness. However, a behavior that performed repeatedly does not necessarily become a habit (Hagger, 2018). There is a lot of theories that define habit as certain kind of behavior, that distinguish habit as behavior and habit as a process and measured as the extent to which individual believes that the behavior is automatic (Aarts & Dijksterhuis, 2000). In the context for the eSport games, the player usually perceives what is like to play by completing daily, weekly, or seasonal mission given by the game. The system was made to attract and encourage player to play the game regularly and entail that a player believes that the behavior to be automatic. Thus, this concept matches with the habit as automatic behavior and its relevance to the eSport context (W. W. Jang et al., 2020).

Habit is considered as strong predictor of future behavior intention and has been added to UTAUT 2 (W. (William) Jang & Byon, 2019) in the context of eSport in United State. According to Saputra et al. (2020), Habit is considered have significant impact toward Behavior Intention in the context of e-Commerce in Indonesia. Another research about e-Learning in Sri Lanka also shows significance of the Habit toward Behavior Intention (Gunasinghe et al., 2020).

2.5.Flow

Flow is described by some people as subjective experience of engaging challenge by tackling goals, get feedback continuously, and adjusting action based on the feedback (Csikszentmihalyi, 2014). Other research state that the flow has also been described to achieve happiness, and for flow to arise, it needs to have good match between one perceived skill and the challenge offered, clarity of the objective and clear feedback (Wesson, 2010). The more immersed they are in the game, the more happy and higher the intention to keep using (Wu et al., 2021). The flow has been studied under the context of computer and information technologies (Koufaris, 2002; Pluss et al., 2022). In specific, the flow is operationalized as the feeling that one being absorbed completely when playing eSport games and feel that they are

inside the game's world (W. (William) Jang & Byon, 2019).

According to Jang & Byon (2019; 2021), Flow has significant effect to Behavior Intention in eSport study in United States. Several research also supported the impact of Flow, such as in the context of purchasing smartphone in China (Mao et al., 2020), the context of social commerce in India (Zhou, 2020), and in the context of tourism in China (Liu et al., 2023).

2.6.Behavior Intention & Use Behavior

At the level of the individual, behavioral models make up most theories. The theory of reasoned action (TRA), which is a general model for behavior prediction, had resulted in the development of several notable derivative models. The TRA theory, which was created by Ajzen and Fishbein in 1977, was the first hypothesis to systematically demonstrate that an individual engaging in a given activity is impacted by both the subjective norm with regard to that conduct as well as his or her attitude toward that behavior (Azjen, 1991).

The degree to which people are willing to try and how much effort they intend to put in when engaging in a behavior is known as behavioral intention (Ajzen, 1985). The likelihood that a behavior will be carried out increases with the strength of an individual's intention to engage in it. Behavioral intention in the context of UTAUT refers to the person's goal or motivation to use a specific technology or system. As it shows the person's readiness and willingness to interact with the technology, behavioral intention is seen as a key factor in determining real technology use (Venkatesh et al., 2012).

The actual use or adoption of a technology or information system is referred to as use behavior in the context of the Unified Theory of Acceptance and Use of Technology (UTAUT). According to the UTAUT paradigm, behavioral intention influences use behavior (Venkatesh et al., 2003). Several research has shown that there is significant and positive correlation toward Use Behavior (Linge et al., 2023; Saputra et al., 2020; Tao et al., 2023).

3. Research Methodology

The literature study approach is being utilized in this study to learn more about the theories being employed and to gain new knowledge and understanding about the research issues. The primary data used for this study was collected through questionnaire using Likert scale that administered to the respondent via online form who previously has tried eSports game before as the pre requirement, lived in Java Island, aged between 16 and 33 using non-probability sampling (purposive sampling). To calculate the sample size, the researcher use Cochran Formula with the margin of error 5% (Cochran, 1997).

The study uses qualitative research to adapt scales from earlier studies. Table 2 shows the information about the scale used.

Table 1: Scale Used

Scale	Item	Source
Effort Expectancy (EE)	4	Wibowo (2021)
Social Influence (SI)	3	Wibowo (2021)
Habit (H)	3	Jang & Byon (2019)
Flow (F)	2	Sitinjak et al. (2021)
Behavior Intention (BI)	3	Jang & Byon (2019)
Use Behavior (UB)	2	Jang & Byon (2019)

The data was statistically analyzed using SmartPLS 3. PLS-SEM is the data analysis method used in this investigation. Partial Least Square, or PLS, is a different approach to structural equation

modeling (SEM), which is predicated on variance- or component-based structural equation modeling and presupposes that the research data is not distributed (Hair et al., 2019). The outer (measurement) assessment model and the inner (structural) evaluation model are the two stages of the PLS (Partial Least Square) evaluation model, respectively. To determine whether a measurement is reliable and valid, the outer model is run first. To demonstrate how much influence the independent factors have on the dependent variable, an inner or structural model is used.

The following are the study's hypotheses, which are based on the research model in Figure 1:

H1: Effort Expectancy has an effect on Behavior Intention
H2: Social Influence has an effect on Behavior Intention
H3: Habit has an effect on Behavior Intention
H4: Flow has an effect on Behavior Intention
H5: Behavior Intention has an effect on Use Behavior

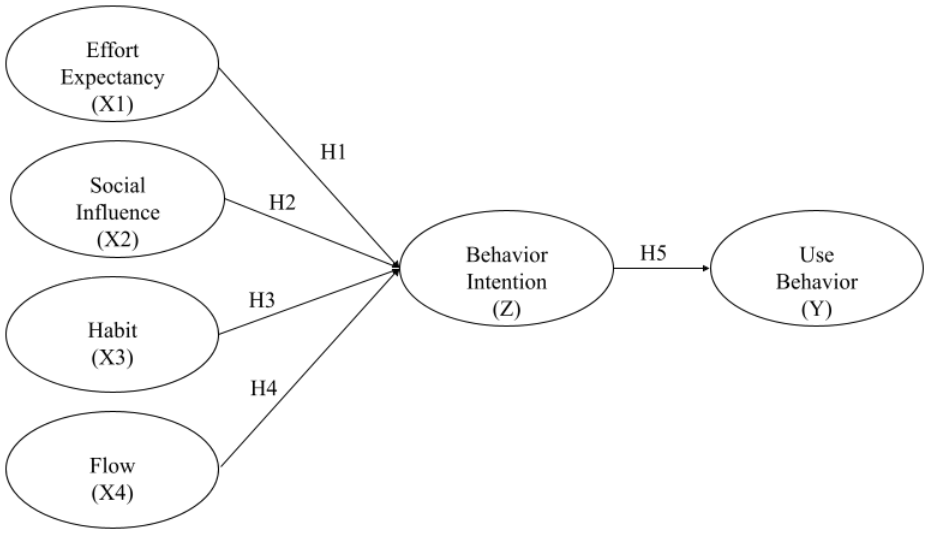

Fig.1: Research Model

To ascertain the link between latent variables, a regression equation must be created. It is possible to convert the research model shown in Figure 1 into a mathematical model. The formula for calculating the correlation between the variables to be observed for the P-value is as follows:

H_0: $\beta_{11} = 0$, then Effort Expectancy does not affect Behavior Intention
H_1: $\beta_{11} \neq 0$, then Effort Expectancy affect Behavior Intention
H_0: $\beta_{12} = 0$, then Social Influence does not affect Behavior Intention
H_1: $\beta_{12} \neq 0$, then Social Influence affects Behavior Intention
H_0: $\beta_{13} = 0$, then Habit does not affect Behavior Intention
H_1: $\beta_{13} \neq 0$, then Habit affects Behavior Intention
H_0: $\beta_{14} = 0$, then Flow does not affect Behavior Intention
H_1: $\beta_{14} \neq 0$, then Flow affects Behavior Intention
H_0: $\beta_{21} = 0$, then Behavior Intention does not affect Use Behavior
H_1: $\beta_{21} \neq 0$, then Behavior Intention affects Use Behavior

4. Result and Discussion

From total of 119 response, 109 were used for this study while the rest 10 response were unable to be used on this research due to the incomplete and irrelevant answer. 90 respondents were identified as male (82.6 %), and 19 respondents were female (17.4%). Most of the age distribution is 16 to 21 with 68 respondent (62.4%). Also, the job for the majority respondent is student with 74 respondent (67.9%). Majority of the respondent also having income < 5 million rupiah per month (66.1%). For the game they have played recently, 41.7% of the respondent have played in Mobile Legend and 30.1% have played PUBG.

Table 2: Respondent Information

		Frequency	Percent
Gender	Male	90	82,6%
	Female	19	17,4%
Age	16-21	68	62,4%
	22-25	16	14,7%
	26-29	9	8,3%
	30-33	11	10,1%
	34-37	5	4,6%
Occupation	Student	74	67,9%
	Employee	21	19,3%
	Freelancer	3	2,8%
	Housewife	2	1,8%
	Entrepreneur	9	8,3%
Income	< 5 million	72	66,1%
	5-10 million	17	15,6%
	10-15 million	9	8,3%
	15-20 million	5	4,6%
	20-30 million	2	1,8%
	> 30 million	4	3,7%
Game Played	Mobile Legend	45	41.7%
	PUBG Mobile	33	30.1%
	Free Fire	30	27,5%
	Wild Rift	11	10,1%
	Ragnarok X	11	10,1%
	Another Game	20	18,3%

4.1.Validity and Reliability Test

By looking at the Average Variance Sampling (AVE) value of each variable and the loading factor value of each indicator for one variable, it is possible to determine the results of the Convergent Validity test. The minimal value for the loading factor and AVE of each variable in the validity test is 0.5, according to (Hair et al., 2019), and the value is still practically significant. One indicator (X23) was dropped because the value of the loading factor was below 0.7. The table of the validity test results is shown below.

Table 3: Validity Test

Variables	Indicator	Loading Factor	AVE	Description
Effort Expectancy	X11	0,849	0,671	Valid
	X12	0,758		Valid
	X13	0,83		Valid
	X14	0,837		Valid
Social Influence	X21	0,905	0,831	Valid
	X22	0,918		Valid
Habit	X31	0,719	0,667	Valid
	X32	0,802		Valid
	X33	0,917		Valid
Flow	X41	0,773	0,732	Valid
	X42	0,931		Valid
Behavior Intention	Z11	0,861	0,791	Valid
	Z12	0,912		Valid
	Z13	0,894		Valid
Use Behavior	Y11	0,927	0,822	Valid
	Y12	0,886		Valid

4.2.Hypothesis Test

All processed questions were deemed valid based on the factor loading value's findings because it was larger than 0.5. Following the validity test, the reliability test must be carried out in this study in two different ways, specifically by evaluating the values of Cronbach's Alpha and Composite Reliability. Cronbach's Alpha and Composite Reliability must both be at least 0.6. (Hair et al., 2019).

Table 4: Reliability Test

Variables	Cronbach's Alpha	Composite Reliability
Effort Expectancy	0,837	0,891
Social Influence	0,797	0,908
Habit	0,745	0,856
Flow	0,656	0,844
Behavior Intention	0,867	0,919
Use Behavior	0,786	0,902

After the validity and reliability test, now the hypothesis test can be conducted. When a p-value of 0.05 is required for the association to be deemed significant, a hypothesis can be accepted. Otherwise, it cannot be. It evaluates whether a hypothesis can be accepted or rejected by considering the impact of one variable on other variables, as illustrated below:

Table 5: Hypothesis Result

	T Statistic	P-Value	Result
Effort Expectancy -> Behavior Intention	0,734	0,463	Rejected
Social Influence -> Behavior Intention	2,228	0,023	Accepted
Habit -> Behavior Intention	8,071	0,000	Accepted
Flow -> Behavior Intention	1,757	0,079	Rejected
Behavior Intention -> Use Behavior	6,982	0,000	Accepted

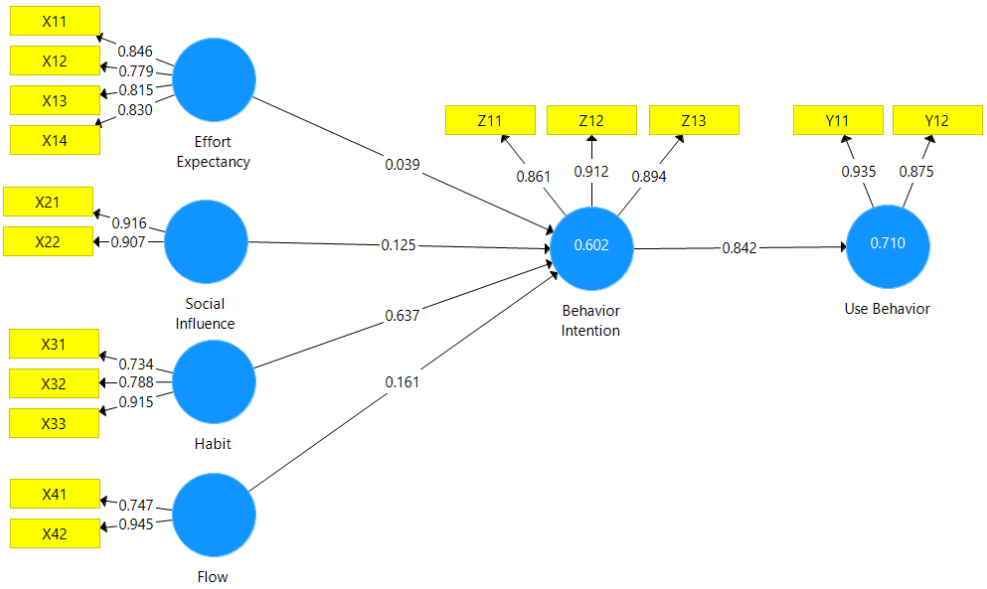

Fig.2: Measurement Model

For the first hypothesis, based on the T-statistic value (0.734 < 1.96), the hypothesis that state Effort Expectancy have significant effect on Behavior Intention is rejected. This finding is interesting because it contradicts the research by William Jang & Byon (2019) which also intended for eSport consumer. In this research, the eSport consumer did not feel that the game they play is hard to learn. Even for the beginner player could easily understand and learn the game. They consider playing eSport game is effortless, because majority of the respondent were around 16-21 years old. For experienced gamers, having a passion for a particular game was one of the main factors in becoming an esports fan, whereas novice players were more inclined to do so due to social influence. Although different genre of the game requires different effort to play, most of the game still could enjoy the game even though they did not put the same effort as professional player, hence they consider playing game casually effortless.

For the second hypothesis, based on the T-statistic value (2.228 > 1.96), the hypothesis that state Social Influence have significant effect on Behavior Intention is accepted with effect value of 12.5%. Social influence is considered to have positive and significant influence to Behavior Intention in another research (Baabdullah, 2018; Michels et al., 2020) and contradict the research conducted by William Jang & Byon (2019). The eSport games are popular in Indonesia because they usually play together with friend. It is also the reason they started play a game, when their friend invites them to try a new game. 'Mabar', is the most commonly term used for invitation to play together while hanging out or from home. Most of the game they played are multiplayer and often can be enjoyed if you have friends to play with instead of teaming with new people you have not meet before. One of the reasons is Indonesia is one of the countries with high value of collectivism in the culture and Social Influence is compatible in here (Han & Kim, 2019; Kaihatu et al., 2020). Since majority of the respondent is not the first generation to play the game, an invitation from family or influencer helps their intention to play and could be a bonding moment for intergenerational.

For the third hypothesis, based on the T-statistic value (8.071 > 1.96), the hypothesis that state Habit have significant effect on Behavior Intention is accepted with effect value of 63.7%. This finding supports the research which suggest that Habit have a positive and significant influence on Behavior Intention (Saputra et al., 2020; Tao et al., 2023) and Habit has the biggest influence toward Behavior Intention in this case. The millennial generation's habits are characterized by a dependence on

technology, especially mobile phone. Mobile game is native to young generation in Indonesia, since the growth of the network connectivity and the rising sales of affordable mobile phone in Indonesia. Beside that, playing game has become a daily routine for them and the game they play mostly reward player who consistently play better than people who rarely play the game. This result also aligns with the previous research about game in Indonesia by Wibowo (2021).

For the fourth hypothesis, based on the T-statistic value (1.757 < 1.96), the hypothesis that state Flow have significant effect on Behavior Intention is rejected. The results indicate that having a sense of flow while playing does not significantly affect a person's behavioral intention to keep playing, develop their skills, or partake in other esports-related activities even though eSports games are regarded as competitive. This contradicts the research conducted by William Jang & Byon (2019) in the United States.

For the fifth hypothesis, based on the T-statistic value (6.889 < 1.96), the hypothesis that state Behavior Intention have significant effect on Use Behavior is accepted with effect value of 84.2%. Our thoughts were in line with the theory that claimed that when behavioral intention is measured properly, it can accurately predict certain behaviors. The findings imply that in esports, game behavior intention is a potent trigger that results in game usage behavior and in line with previous research (W. (William) Jang & Byon, 2019).

5. Conclusion

This paper is trying to look for the factor that makes mobile game so popular in Indonesia by using quantitative research and analyze 109 respondents via online questionnaire. The result confirms the significant contribution of Social Influence and Habit. Both have significant effect on Behavior Intention and Behavior Intention on Use Behavior for eSport gamer, while Effort Expectancy and Flow do not have significant effect on Behavior Intention. The UTAUT model can be used as a solid theoretical framework to comprehend what leads esports fans to develop a desire to play the sport, which serves as a key proxy indication for gaming consumption behavior.

The present study found that Social Influence and Habit can influence one intention to play the game. The more they are getting influenced by relation, friends, or family, the more they are willing to try the game. Also, the more they are taking the game as daily routinely, the higher the intention to keep playing. Behavior Intention also shows significant effect on Use Behavior. This finding is in line with previous study by Wibowo (2021) and Jang & Byon (2019).

As for the recommendation, the developer of the game need to understand the importance of habit and social influence in eSport context. To encourage gamer to play the game, a marketing campaign with referral reward could help them to try the game and creating a positive WOM. A share feature also needs to be implemented in the game so they could easily share to the trending social media. The developer also could constantly hire professional player and game influencer to influence people to play. They also can build a social media page for community to share their achievement and progress in the game while interacting with new people that hopefully could influence them to play together in the future.

The game's creator must incorporate a sense of habit into the design of the game, such as a daily task that encourages players to continue playing and rewards them for doing so. They must make in game activity that not too mundane but also not too hard to achieve that they could do it daily. For example, they must play at least one game to get the daily reward.

The limitation of this research is the fact that this study solely focuses on Java Island is one of its drawbacks; as a result, extrapolating the research's conclusions to other places is difficult. Future studies should therefore emphasize comparative analysis elsewhere. Also, the study's responders were all local esports gamer, meaning that the study's findings could not be generalized to other populations.

Second, a variety of genres make up esports as a sport. Three broad categories of esports game

genre exist (e.g., physical enactment and sport simulation video game), which may include all the esports game genres, despite the existence of numerous genres such as multiplayer online battle arena (MOBA), first-person shooting (FPS), sport simulation games, and real-time strategy (RTS). Although esports fans may have varying opinions of the various game genres, genre-specific variances were not considered in this study. Additional control variable such as genre of the game could be used in the future research about mobile game eSport.

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