THE MOTIVATIONAL FACTORS THAT AFFECT ONLINE GAMING COMMUNITY TO PARTICIPATE ESPORTS IN MALAYSIA

BY

CHING YING TIAN
DARREN BEK
LEE WAN RUI
LOH HOW ZHENG
TIONG ING TECK

A final year project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF BUSINESS ADMINISTRATION (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FALCULTY OF BUSINESS AND FINANCE
DEPARTMENT OF BUSINESS

AUGUST 2019

DECLARATION

We hereby declare that:

(1) This undergraduate Final Year Project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this Final Year Project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the Final Year Project.

(4) The word count for this research report is 16720 words.

Name of Student:	Student ID:	Signature:
1. CHING YING TIAN	16ABB06497	
2. DARREN BEK	16ABB06686	
3. LEE WAN RUI	16ABB06688	
4. LOH HOW ZHENG	16ABB06498	
5. TIONG ING TECK	16ABB06739	

Date: 16th September 2019

ACKNOWLEDGEMENT

First and foremost, we would like to express the greatest appreciation to our dearest supervisor, Ms Seow Ai Na for her continuous support, motivation, patience and her expertise throughout the research project. Her advice and guidance has helped us to accomplish the research project successfully and we are proud to be her students.

Besides, we would like to express our sincere thanks to our second examiner, Dr Choong Yuen Onn for provided us useful information and suggestions to complete the research although he is not our supervisor for the Final Year Project. His advice and guidance are very much appreciated.

Furthermore, we would like to express our appreciation to all the target respondents who are willing to take part in our research project. We are highly appreciated their efforts in assisting us to achieve a better analysis in this research.

Last but not least, we would like to thank all the lecturers and everyone who has provided the assistance. Thanks for their support in helping us to complete this research and overcome many obstacles and challenges.

Thank you.

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LIST OF ABBREVIATIONS

AC	Achievement
ADSL	Asymmetric Digital Subscriber Line
AVE	Average Variance Extracted
CO	Compliance
CR	Composite Reliability
CS:GO	Counter-Strike: Global Offensive
Dial-p	Dial-up
Dota 2	Defense of the Ancients 2
ENJ	Enjoyment
eSports	Electronic Sports
eSM	eSports Malaysia
FAIR	Fairness
FIFA	Fédération Internationale de Football Association
FPS	First Person Shooter games
FS	Financial Support
G	Gratification
GS	Government support
ID	Identification
IMM	Immersion

IN	Internalisation
INC	Incentives
IS	Infrastructure
LAN	Local Area Network
LoL	League of Legends
MLR	Multiple Linear Regression
MMORPGs	Massively Multiplayer Online Role-Playing Games
MOBAs	Multiplayer Online Battle Arenas
NBA2K	National Basketball Association 2K
PC	Personal Computer
PLS-SEM	Partial Least Square-Structural Equation Modelling
Pre-U	Pre-University
PUBG	Player Unknown's Battlegrounds
RTS	Real Time Strategy
SDT	Self-Determination Theory
SEC	Security
SI	Social influence
SM	Service Mechanisms
SOC	Social
SOC INT	Social Interaction
SOC PRE	Social Presence
SPA PRE	Spatial Presence
USD	United State Dollar

UTAR   Universiti Tunku Abdul Rahman

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PREFACE

This research project is compulsory in order to complete Bachelor Degree of Business Administration (HONS) in University Tunku Abdul Rahman (UTAR). This research project was conducted under the supervision of Ms Seow Ai Na. The topic of this research is "The Motivational Factors that Affect Online Gaming Community to Participate eSports in Malaysia". This study is conducted because eSports is considered as one of the attractive industries which may drive up the growth of country's economy.

Malaysia is one of the countries with higher potential in developing eSports sectors as the facilities, enthusiasts and the professional gamers is keep improving in the recent years. It is acceptable that Malaysia would be the eSports hub in future within the global marketplace due to its well-coordinated infrastructures, friendly local citizens, and the assistance from government as well. Hence, this research will provide useful and general information that is important for the eSports organisers and the policymakers to formulate various strategic plans to attract online gaming community towards eSports in Malaysia.

In this research, the researchers point out the four independent variables which are government support, service mechanisms, gratification and social influence that affect online gaming community to participate eSports in Malaysia.

ABSTRACT

The growth of eSports and the organised video game contests has created considerable awareness from the entertainment and sport industries. Hence, eSports represents an area that significantly emphasizes by other researchers to conduct the researches in providing more useful information for market practitioners and policymakers. The purpose of this study is to determine whether the government support, service mechanisms, gratification, and social influence will affect the motivation of online gaming community towards eSports in Malaysia. A survey questionnaire was conducted on online gaming community and a total 411 data was used and the results are generated by using partial least square path modelling (Smart PLS). Based on the results, there is a positive relationship between the service mechanisms, gratification and social influence with motivation to participate in eSports. However, there is no significant relationship between government support with motivation to participate in eSports. Besides, this study provides implication for game developers and other relevant parties to use the finding of this study in generating strategic plans for eSports development. In addition, several recommendations are also provided for future scholars and researchers in order to conduct other related research and recognised potential improvement.

Keywords: Government Support, Service Mechanisms, Gratification, Social Influence, eSports, Online Gaming Community, Motivational Factors.

CHAPTER 1: INTRODUCTION

1.0 Introduction

Chapter 1 is the introductory chapter. This chapter will provide an overview of the study context and explain the research problem. The purpose of this research is to identify the motivational factors that affect online gaming community to participate eSports in Malaysia. This chapter will highlight the research objectives, research questions and the hypotheses. This chapter will start with a brief research background followed by problem statement, research objectives, research questions, hypotheses of the study, significance of the study, chapter layout and chapter summary.

1.1 Research Background

One of the most famous activities among children, teenagers and even adults is playing video games (Entertainment Software Association, 2017). Throughout the past fifty years, video games have evolved from early standalone games into massively multiplayer and competitive online games. In massively multiplayer and competitive online games, large number of players can play together against the games' non-player enemies or against other players. Recently, minority of players has considered video game playing as their career option because the video gaming has become professionalised in the competitive gaming world (Faust, Meyer & Griffiths, 2013; Griffiths, 2017). The professionalised of video gaming playing has been known as 'eSports' or 'electronic Sports'.

The term 'electronic Sports' or 'eSports' has emerged in 1990s (Wagner, 2006). eSports is a new concept in the gaming culture, and it begins to become one of the

most important and well-known part of video game communities, especially among teenagers and adults (Bányai, Griffiths, Király, & Demetrovics, 2019). In 1980s, early eSports has started in the form of arcade video game playing. However, due to advance technology and better internet accessibility, eSports has been pushed into a new era and this has contributed to the rapid development of eSports (Lee & Schoenstedt, 2011). The communities of competitive video game or eSports was begun in South Korea and the popularity of various games such as First Person Shooter (FPS) games, Real Time Strategy (RTS) games and Massively Multiplayer Online Role-Playing Games (MMORPGs) has created a foundation for the emerging competition in both Asia and Western counties and regions (Taylor, 2012; Wagner, 2006). The two largest eSports markets are Asia and North America.

The growth of global eSports in the recent years have achieved a desirable result and become the important concern for many developing countries. Meanwhile, major corporate sponsor such as Samsung, Red Bull and Miscrosoft have been attracted by the increasing institutionalization and broadening consumer and participant markets of eSports. According to Gough (2019), the global eSports market revenue from 2012 had reached an amount of USD 130 million and increase to USD 1096 million in 2019. Besides, the global eSports market report shows that the market is expected to achieve revenue close to USD 1.8 billion in 2022 with the growth of 22.3 per cent (Pannekeet, 2019). The revenues mostly generated from sponsorships and advertising, prize money, contests, commodity and ticket sales.

1.1.1 Are eSports a Sport?

Majority of researchers are interested in studying eSports but most of studies has focus on the same debate that is whether eSports is considered as a sport (Heere, 2018; Jenny, Manning, Keiper, & Olrich, 2017; Jonasson & Thiborg, 2010). There is an increasing recognition of eSports as sport among industry stakeholders. Both eSports and sports have a lot of similarities. For instance,

both eSports and sports are competitive and have provided entertainment to the audience viewing the game (Michaluk, 2012).

According to Guttman's (2004), Suits' (2007) and Taylor (2012) characteristics that define an activity as sport, eSports can be classified as a sport because it includes play, the events are organised and governed by rules, includes competition with the outcome of a winner and a loser, and comprises skill. Furthermore, the events are hosted by sponsors, and have eSports play-by-play commentaries, sizeable live audiences, and large cash prizes for the best players (Jenny et al. 2017; Jonasson & Thiborg 2010; Lopez-Gonzalez & Griffiths 2018).

Understanding whether eSports is considered as sport is key to identify the motivational factors to participate in eSports as the motivation to participate in eSports and sports are similar. Hamari and Sjöblom (2017) stated that without comparing both eSports and sport, it is unable for the researchers to understand the extent to which eSports participants are motivated similarly to sport participants. By understanding eSports and sport participants' motives such as social opportunities and achievement, the behavioural outcomes of players to participate eSports are predictable (Fink, Trail, & Anderson, 2002; Funk, Beaton, & Alexandris, 2012).

1.1.2 Evolution of eSports

eSports begins in the early 1990s and became popular due to the increasing number of players (Jonasson & Thiborg, 2010). The first-person-shooter (FPS), real-time strategy (RTS) and sports games are the most popular games type within eSports (Jonasson & Thiborg, 2010). One of the most popular FPS games is Counter-Strike, and its counterpart in RTS games is Star Craft. In sport games, naturally, traditional (or modern) sports are simulated. A popular

title is the FIFA football series. First-person-shooter (FPS) is consider as the first eSports that played in Red Annihilation Quake Tournament held in 1997 Electronic Entertainment Expo(E3) in Atlanta, Georgia, USA (Kim, 2017).

Gaming cultures had been separated into two different value systems which are eastern and western value systems (Wolff, 2002). Korea is the eastern country that started out eSports (Wolff, 2002). In the mid-nineties, Korean policy makers had deregulated the advanced telecommunication applications which had caused a tremendous growth of the Korean broadband infrastructure (Wolff, 2002). This infrastructure needed to be filled with content that mainly provided through digital television and online gaming.

However, in United States and Europe, the history of competitive gaming is usually related with the launching of networked first person shooting games named "Doom" in 1993 followed by "Quake" in 1996 (Wolff, 2002). Several professional and semi-professional online gaming leagues had been formed in 1997 and the most noticeably and influential is still "Cyberathlete Professional League" (Wolff, 2002).

Even though there are an increasing number of global eSports events, such as the World Cyber Games, which try to bring western and eastern eSports culture together, the two business ecosystems remain largely separated and seem to develop almost independently. In short, eSports is considered as a counterculture or alternative to modern sport and as the future hegemonic sport (Wolff, 2002).

1.1.3 eSports in Malaysia

eSports in Malaysia has a steady growth as the eSports events such as The Legends Circuit, Malaysia Cyber Games, Selangor Cyber Games and ESL

Genting are well organised and various incentives are provided. This allows the eSports enthusiasts to have more interest to engage in eSports events. With such actions being done, this will subsequently improve country's revenue and eSports is expected to grow strong and proud in the future. Besides, eSports in Malaysia has attracted the official recognition of the national government and are from now on under the aegies of the eSports Malaysia (eSM). eSports Malaysia (eSM) is the governing body of Malaysian eSports and is registered under the Sports Commission of Malaysia. In general, with the official recognition of the national government, the interest of players, teams and the community are properly regulated and protected. Furthermore, this is also the first major step towards the global acceptance of eSports as being treated as other popular sports.

According to the Malaysia Youth and Sports Minister, Syed Saddiq Syed Abdul Rahman, Malaysian government has the intention to further improve eSports development and allocate funds to the industry (Careem, 2018). eSports trends in Malaysia is expected to grow dramatically in terms of the amount of eSports lovers (Lee, 2019). It is estimated to have about 2.4 million of enthusiasts (Lee, 2019). In year 2018, Malaysia eSports' revenue was recorded USD 633 million and ranked number 22 in global eSports industries (Lee, 2019). Furthermore, in 2018, the Gaming Industry alone had contributed USD 100 million to Malaysia's revenue and is expected to show an annual growth rate (CAGR 2018-2023) of 10.9 per cent, which will result in a market volume of USD 168 million by 2023 (Newzoo, 2018).

Table 1.1 and Table 1.2 show the eSports' earning in Malaysia and the total number of players in eSports tournament in Malaysia from year 2012 to 2018.

Table 1.1:

eSports' earning in Malaysia from year 2012 to 2018

Year	Total prize money (US dollar)
2012	284,709.40
2013	412,840.32
2014	569,737.63
2015	514,444.84
2016	2,118,570.38
2017	1,131,613.21
2018	2,324,773.31

Note. From Top Countries eSports Earnings. (2019). Retrieved from https://www.esportsearnings.com/history/2018/countries

Table 1.2:

The total number of players in eSports Tournament in Malaysia from year 2012 to 2018

Year	Total number of players
2012	29
2013	64
2014	64
2015	137
2016	119
2017	172

2018	148

Note. From Top Countries eSports Earnings. (2019). Retrieved from https://www.esportsearnings.com/history/2018/countries

In conclusion, with the attractiveness of Malaysia's digital contents, creative and innovative technology devices, younger demographics, and effective educational system, Malaysia is able to access to the recent and modernised the talents with a strong cultural influences from the hemispheres of Eastern and also the Western countries (Digital News Asia, 2018). Therefore, it is important for us to do a research to find out the motivational factors that affect online gaming community to participate in eSports in the growing pace of it in Malaysia.

1.2 Problem statement

In terms of global game revenue, the growth of eSports in Malaysia are lagging behind those Asia Pacific countries such as Thailand, Indonesia, India, Taiwan, Republic of Korea, Japan and China (Newzoo, 2018). Malaysian government has been officially announced under Budget 2019 that RM 10 million will be allocated to the Malaysian Digital Economy Corporation (MDEC) with regards to eSports in Malaysia (Ministry of Finance Malaysia, 2019). This RM10 million allocation will be used to further foster the growth of the eSports industry in Malaysia, including grooming new talents to become champions as well as to aid in games development. Datuk Yasmin Mahmood mentioned that the industry itself is worth USD $180.1 billion and it is growing (Maulana, 2018). However, there are certain issues that Malaysian government has to improve before investing into eSports sectors.

Government's effort in growing eSports will encourage more players to compete as well as provide high quality jobs in the future such as event organisers, graphic designers, game developers, software engineers and eSports-based marketers and business. The incident of a 12 years old Malay religion boy created the shooting games and then sold to 'Pusat Internet 1 Malaysia' has become the biggest concern to the Malaysian government in game-making sector (Lee, 2018). Therefore, Malaysian government believed that through the development of eSports, it is able to instil the creativity and innovation of Malaysian towards the creation of online games.

Besides that, the eSports infrastructures such as network connection and eSports hardware as well as software needs served as an important implication to the industry. The issues of infrastructure that Malaysian government are facing including internet accessibility, advisor of training and training center (Kaur, 2017). The Youth and Sports Minister of Malaysia had stated that Malaysian government will develop the best and the largest eSports hub among Asia countries in the future (Adreena, 2018). Besides, the government is planning to invest and further improve the country's digital infrastructures (Adreena, 2018). At the same time, The Rural Development Minister, Datuk Seri Rina Harun had announced that the government will focus on the development of internet accessibility in rural areas through the Digital Village Programme that will be launched during the middle of year 2019 (Kaur, 2017). According to Speedtest Global Index (2019), the internet accessibility of Malaysia is still slower than those Asia countries such as China, Singapore, South Korea and Thailand (Kaur, 2017).

Furthermore, the outflow of top eSports talents to other countries is another issue faced by Malaysian government in building up the eSports industries among younger generations. Some of the top players have joined the teams in other countries because of better incomes. According to a player of 'The International 2018 Dota2 Championship', Yap Jian Wei, who has won about RM 16.83 million of prize money from the championship stated that even Malaysia is focusing on the development of eSports, but it is not good enough for the players to maintaine their career (Cheah,

2018). This is because it is very difficult especially for the new players to generate money in this industry (Cheah, 2018).

Lastly, Malaysia Digital Economy Corporation (MDEC) had partnered with Kitaman Resources (Kitamen) in launching 'Healthy Gaming' program on March 2018 to promote healthy and productive lifestyle in order to improve life quality of eSports players in Malaysia (Ashraf, 2018). Chief Executive Officer of MDEC, Datuk Yasmin Mahmood, encouraged the players in Malaysia to adopt a balanced and healthy behaviour so that the players are fun and enjoy while participating in eSports (Ashraf, 2018). However, the perceptions biases of Malaysian have created an obstacle to the eSports' development, especially the Malaysian parents who think that eSports is an activity that are wasting time and people will get addicted (Careem, 2018).

In conclusion, eSports has the potential to grow in Malaysia. Hence, it is important to identify what are the motivational factors that affect online gaming community to participate eSports in Malaysia as such information can help to develop eSports industry in Malaysia.

1.3   Research Questions

1.3.1 General Research Question

What are the motivational factors that affect online gaming community to participate eSports in Malaysia?

1.3.2 Specific Research Questions

1. Is there a positive relationship between government support and motivation of online gaming community to participate in eSports?

2. Is there a positive relationship between service mechanisms and motivation of online gaming community to participate in eSports?

3. Is there a positive relationship between gratification and motivation of online gaming community to participate in eSports?

4. Is there a positive relationship between social influence and motivation of online gaming community to participate in eSports?

1.4 Research Objectives

1.4.1 General Objective

In general, the research objective is to study the motivational factors that affecting the online gaming community to participate eSports in Malaysia.

1.4.2 Specific Objectives

1. To examine the positive relationship between government support and motivation of online gaming community to participate in eSports.

2. To examine the positive relationship between service mechanisms and motivation of online gaming community to participate in eSports.

3. To examine the positive relationship between gratification and motivation of online gaming community to participate in eSports.

4. To examine the positive relationship between social influence and motivation of online gaming community to participate in eSports.

1.5   Hypotheses of the Study

H_1: There is a positive relationship between government support and motivation of online gaming community to participate in eSports.

H_2: There is a positive relationship between service mechanisms and motivation of online gaming community to participate in eSports.

H_3: There is a positive relationship between gratification and motivation of online gaming community to participate in eSports.

H_4: There is a positive relationship between social influence and motivation of online gaming community to participate in eSports.

1.6   Significant of Study

This study is useful for the government agencies and eSports developers as it provides insight for them in developing eSports industry. In addition, they can gain a better understanding on individual behaviour in participating eSports activities. This

study also serves as valuable information to the policy makers to improve the eSports infrastructure by allocating more funds in facilitating the development of eSports.

Besides, this study also enables the management team of the gaming companies to plan for better strategies and attract more players to participate in eSports. Furthermore, eSports would also help the respective parties to gain awareness about the importance of gaming environment and attributes of eSports industry.

Furthermore, this study may generate useful knowledge for the future researchers to investigate further on the motivational factors that influence eSports participation with theoretical models. Future scholars can focus on various motivational factors to gain a better understanding among the online gaming community in order to gain positioning of eSports.

Last but not least, eSports is now more than a game in creating potential to grow and contributing to Malaysia economic. The industry comprises an entire ecosystem from game developers, players and eSports event organisers which resulted in a huge business. Hence, job opportunities can be enhanced by this industry. Besides, eSports and other related activities such as organisation of an eSports competition increase the national, regional and also local earning.

1.7   Chapter Layout

In Chapter 1, it consist a brief background of the research topic followed by problem statement. Main issues were highlighted in the problem statement. Then, general research objectives were defined and it was narrowed down into a more specific research objectives. After that, it was continued by the research questions, hypotheses of the study, significance of the study, chapter layout and chapter summary.

For Chapter 2, it started by a brief introduction followed by explaining the underlying theories that is related to the research topic. In this chapter, relevant journal articles were reviewed and the dependent variable as well as independent variables was explained. Then, a conceptual framework and hypotheses was proposed and developed in this chapter.

Chapter 3 started with a brief introduction which provided an overview of the research methodology. This chapter described how the research was carried out in terms of research design, data collection methods, sampling designs, operational definitions of constructs, measurement scales and methods of data analysis.

In chapter 4, it presented the diagnostic checking, interpretation of coefficients, unit root test and co-integration test. The results of the research and the interpretation were studied and showed in this chapter.

Lastly in chapter 5, it involved the summary of the research, recommendations, and limitations of the study as well.

1.8   Chapter Summary

In conclusion, we have examined the trend of eSports in the world and global revenue and growth of eSports in the global marketplace. Throughout this chapter, the issues and problems that are related to eSports sector has been identified.

Chapter 2: Literature Review

2.0 Introduction

Chapter 2 shows the definition of the term, underlying theories, dependent variable and independent variables of the study. Besides that, the relationship between the independent variables and dependent variable were evaluated. The conceptual framework between independent variables and dependent variable provide a better image for further investigate the research objectives.

2.1 eSports

A scientific definition for eSports is required in the academic study of competitive video gaming. Even though there are some conceptual and qualitative literatures on eSports has emerged and few definitions regarding to eSports have been proposed. However, there is still no generally accepted definition for this term currently. This is because defining eSports is difficult as the industry is still young and eSports is a combination of computing, gaming, media as well as sports (Jin, 2010). Ma, Wu and Wu (2013) mentioned that eSports players and casual gamers are different. An eSports participant is recognised as a professional player who involves in competition (Ma, Wu & Wu, 2013). Therefore, they define eSports as their job whereas casual players play games for gratification (Ma, Wu & Wu, 2013).

In defining eSports, Wagner (2006) has extended the general definition of sports that provided by Tiedemann (2004). Tiedeman (2004) defined the traditional sports as 'an area of sport activities in which people develop and train mental or physical abilities'. Hence, Wagner (2006) defined eSports as an area of sport activities in which people

develop and train mental or physical abilities in the use of information and communication technologies. More practical, Whalen (2013) defined eSports as 'an umbrella term used to describe organised, sanctioned video game competitions, most often in the context of video game tournaments'.

However, Wagner's (2006) definition did not clearly stated how eSports are played. Meanwhile, he did not define the 'e' of eSports by the conventional keywords 'electronic' or 'computerized'. This has left the space for evolutionary transformation. In addition, since the foundation of the eSports industry is focused on competition, hence, it is important to include the word 'competition' in the definition. The definition of Wagner (2006) has failed to include the aspect of competition. Moreover, the growth and viewership of eSports is mainly due to the accessibility of the competitions being online and interactively independent of location. Thus, in defining eSports, the platform in which eSports are played which is online should be included. However, Wagner (2006) has failed to define it in the definition.

Therefore, in this study, the researchers adopted and adapted the definition of author Wagner (2006) and Whalen (2013) whereby eSports is defined as an organised online video game competition in which people develop and train mental or physical abilities in the use of electronic system.

Table 2.1 has summarised the definition of eSports adopted from various studies in the field.

Table 2.1:

The definition of eSports

Author (s)	Definition
(Hemphill, 2005)	eSports is 'alternative sport realities, that is, to electronically extended

	athletes in digitally represented sporting worlds'.
(Wagner, 2006)	eSports is an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies.
(Whalen, 2013)	eSports is an umbrella term used to describe organised, sanctioned video game competitions, most often in the context of video game tournaments.
(Maximilians, Schubert, & Mahlmann, 2016)	eSports refers to situations where computer games are played competitively.
(Jenny et al., 2017)	Electronic sports, or eSports, organised video game competitions, is also known as cyber sport, virtual sport and competitive gaming.
(Hamari & Sjöblom, 2017)	eSports is as "a form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces.
	eSports commonly refer to competitive (pro and amateur) video gaming that is often coordinated by different leagues, ladders and tournaments, and where players customarily belong to teams or

other "sporting" organisations which are sponsored by various business organisations.

2.2 Research Gap

Even though there is a growing research interest in eSports. However, there is limited research has been done by academic concerning eSports, participation and motivation as existing motivational studies are primarily focused on the spectators' motivation to consume eSports. Thus, it is important to conduct a research on the motivational factors that affect the participation in eSports because an individual motivation to participate in eSports is a key resource for the industry success. This can result from the fact that individuals spend a specific degree of effort in completing a task. In addition, an individual may enter an industry because of perceived value added in that particular industry or they may exit the industry if there is no longer value to the association. An extensive research on eSports has mentioned in Appendix 2.1.

2.3 Underlying Theories

The environment (government support, service mechanisms and gratification) and the people around an individual (social influence) will influence the individual to participate in eSports. After the individual is motivated to participate in eSports, he or she will have the desire to gain achievement and social relationship. All these can be explained by some of the motivational theories. These motivational theories are social motivational theory, self-determination theory and social influence theory. The details of the theory will be discussed in the following subsection.

2.3.1 Social motivational theory

Social motivational theory refers to motivation that stems from the social and cultural environment in which everyone lives in and form his characteristics (Zlate & Cucui, 2015). The motivation included in forming a meaningful and long lasting relationship (Fulford, Campellone, & Gard, 2018). The key for us to understand the social motivation and the social functioning impairment is social interaction (Chevallier, Kohls, Troiani, Brodkin, & Schultz, 2012; Fulford et al., 2018) while the key components of the human motivation is the reward and effort (Fulford et al., 2018). The compensation or the benefits that will be gained will drive a person to participate in eSports. It has been emphasized that social motivation can be different from social cognition and social skills based on social interaction. Social interaction includes the efforts required to form and sustain the social bonds (Fulford et al., 2018).

2.3.2 Self-determination Theory (SDT)

Self-determination theory is defined as the intensity to which the person behaviour is self-motivated and personality integration. This theory is appropriate for examining the motivation of eSports participants through focusing on self-determined motivation and the fulfilment of basic psychological needs of autonomy, competence, and relatedness (Murcia, Iglesias, Cervelló, Jiménez, & Calvo, 2013).

Self-determination theory explained the differences between extrinsic and intrinsic motivation (Yu, Sheikh, Islam, Hameed, Khan & Khan, 2017; Gillet, Vallerand, & Lafrenière, 2012). Intrinsic motivation is the highest form of motivation, it refers to the self-pleasure, self-enjoyment, satisfaction which an individual received from participation in an activity (Ayub, 2010; Yu et al.,

2017). Extrinsic motivation is described as an individual behaviour in the nature of external motivation which includes identification and integration that create the means or abilities to achieve some desired outcomes (Lavergne, Sharp, Pelletier, & Holtby, 2010). Therefore, in this study, self-determination theory will be used to examine the motivation of online gaming community to participate in eSports.

2.3.3 Social influence theory

Social influence theory was developed by Kelman (1958). Social influence theory explains how others influence an individuals' feelings, believes, or actions. The changes in attitudes and actions caused by social influence may occur at different 'stages' (Kelman, 1958). Each stages of change correspond to differences in the process whereby individuals acknowledge the influence (Kelman, 1958). Kelman (1974) has identified three different processes of social influence which are compliance-, identification- and internalization-based processes. Kelman's "three-process model" claims that action is severely influenced by social influence. As such, three major processes influenced the behaviours of individuals, groups, organisations, and societies.

According to Kelman (1958), compliance-based social influence refers to people who tend to agree with or conform to the expectations of others, but actually keeps their dissenting opinions private such as social acceptance. This happens when an individual or group tends to achieve a favourable reaction from an affecting party. This usually involves pursuit of specific rewards or the avoidance of certain punishments that is controlled by the affecting party.

Identification is individuals who are affected by another individual who is liked and respected such as a well-known celebrities, peers and family members (Kelman, 1958). Identification happens when an individual or group

acknowledges the influence of another individual in order to build or sustain a self-defining relationship with them. Identification-based social influence work in the way of non-verbal interaction, as individuals tend to believe and behave in a way similar as their members (Lewis, Agarwal & Sambamurthy, 2003).

Internalization is referring to people who accept a belief or action and agree both publicly and privately (Kelman, 1958). Internalization happens when the influence of another individual is accepted by an individual or group as the values of both individuals are similar. As a consequence, accepting the influence attempt enables the individual or group to both keep consistency and strengthen the alignment between believes and actions.

By differentiating between the three processes, one could ascertain if usage behaviour is due to the influence of referents on one's intent or by one's own attitude. Similarly, while applying to the use of a new information system, the social influence processes identify the commitment of individual user, or especially, psychological attachment to the use of any new information technology (Malhotra & Galletta, 1999; O'Reilly & Chatman, 1986).

2.4 Review of Past Studies

Among the numerous motivation related theories, social influence theory appeared to be a more influential theory of motivation to participate in eSports because it shares a number of similarities with other motivation related theories. This research study's model and their hypothesis association is drawn upon four independent variables which are government support, service mechanisms, gratification and social influence in measuring the motivational factors that affect online gaming community to participate eSports in Malaysia. Therefore, the defined relationships between

government support, service mechanisms, gratification and social influence with the motivation to participate in eSports drove current researchers to choose these four variables in this study.

The gratification has been successfully applied to various new media and is related to communication technologies (Liang, Lai, & Ku, 2006; Stafford & Schkade, 2004). Thus, gratification can be seen in some cases for instance the selection of online games. Online players will select the online games to fit a particular need and also try to show the empowerment or other socially conscience motives. A structural model tests indicate that the motivation of an individual to participate in online games is significantly influenced by both the gratification and service mechanisms (Ha, Yoon & Choi, 2007; Hsu & Lu, 2007; Wu & Lin, 2007). Besides, government support is also one of an important factor that would motivate an individual to participate eSports as the incentives and facilities provided by the government are attractive.

Social influence theory concludes that individuals' eSports perception and participation are subject to social influence. Social influence applies to the motivation of an individual to participate in eSports by observing the participation behaviours of others with whom they maintain positive and meaningful social relationships, such as family members, peers, and co-workers. Thus, current researchers choose it as the independent variable in measuring the motivation in this study.

With these four constructs, the research framework should be comprehensive to explain the motivational factors that affect the online gaming community to participate eSports in Malaysia.

2.5 Proposed Research Framework

As shown in Figure 2.1, the framework is developed based on review of past studies in the previous section. Based on the discussion above, this study is using social

motivational theory, self-determination theory and social influence theory to support the variables of government support, service mechanisms, gratification and social influence in the field of motivation to participate in eSports.
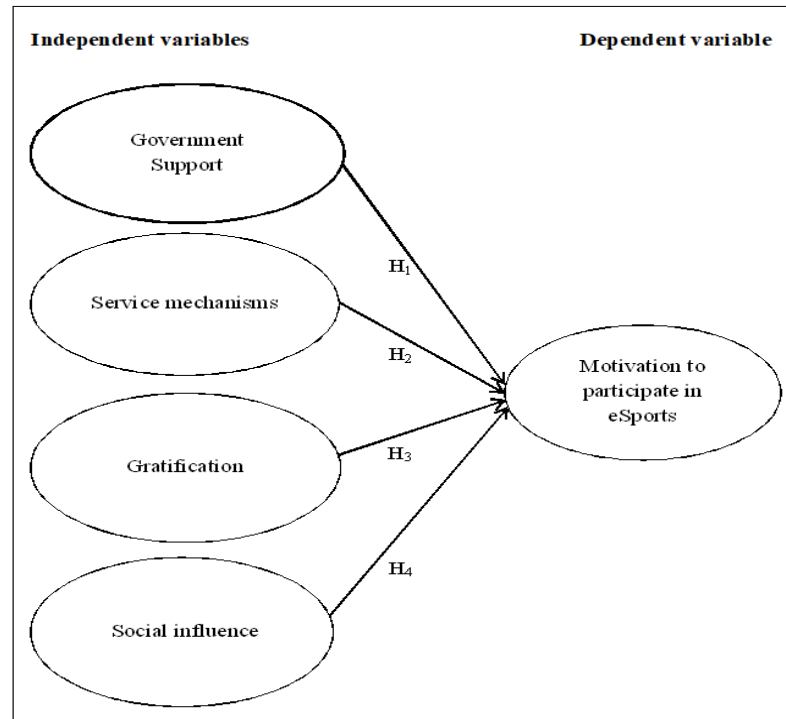
Figure 2.1. Proposed research framework. *Source*: Developed for the research.

2.6 Review of the Literature

2.6.1 Dependent Variable: Motivation to participate in eSports

The term motivation to participate has been studied by researches in different areas such as crowdsourcing (Zhao & Zhu, 2013), open source software development (Bagozzi & Dholakia, 2006; Ke & Zhang, 2010) and hacking (Lakhani & Wolf, 2005). Some existing literature examined how motivation plays an important role for facilitating the participation (Brabham, 2010).

Motivation can refer to motives that underlie certain behaviours and encompass believes, perceptions, values, interests and actions, as well as vary within individuals and across subjects (Lai, 2011; Vukelic & Jorgensen, 2018).

According to Yee (2006), in massively multiplayer online role-playing games, there are three major elements which are achievement, social and immersion (Castillo, 2019; Yee, 2006). Prior studies of online gaming have discovered various distinct differences between players of varying game played motivations. Social motivations which include an interest in socializing, establishing relationships, and engaging in team play, are significantly influence the feelings and well-being of players (Snodgrass et al., 2012), online civic engagement (Zhong, 2011), and the establishing of both online and offline relationships (Cole & Griffiths, 2007; Domahidi, Festl, & Quandt, 2014). In contrast, achievement motivations have been linked with negative results (Snodgrass et al., 2012; Zhong & Yao, 2013). For instance, both addictive and problematic gaming behaviour will cause the feelings of tired and distress, and the degradation of relationships with peers and family members (Snodgrass et al., 2012; Zhong & Yao, 2013).

There are many factors motivate the participation in eSports such as social interaction, competition, identification with sport, diversion, entertainment, sport knowledge application, arousal, design and graphics, passing time, skill building, family and peer pressure (Kim & Ross, 2006; Lee, Cheon, Judge, Shin, & Kim, 2012; Sherry et al. 2006; Moital et al., 2018). In this study, the four independent variables which are government support, service mechanisms, gratification and social influence has been chosen. As mentioned in the problem statement, these independent variables are crucial in identifying the motivation to participate in eSports.

2.6.2 Independent variable: Government support

Government Support is referring to the financial and non-financial assistances given by the government. It occurs when the government is helping industries to get the right support at the right time. In most parts of the world, governments at national and international levels have supported eSports by providing financial incentives and increase the investment in the industry such as United States of America, Korea, China and Japan (Yang, Ye, & Kang, 2011). South Korea with the strong government support, has made eSports became one of the three major competitive sports projects (football, chess and eSports) (Yang et al., 2011). Nowadays, South Korea being one of the Kingdoms in eSports field in the world and the eSports industry has become one of the pillar industries (Yang et al., 2011). Therefore, for eSports development, the role of Malaysian government should be taken into account.

Government financial incentives enable eSports to expand their operational activities which can enhance their performance and in return can contribute to the country economic (Songling, Ishtiaq, & Anwar, 2018; Clement and Hansen, 2003). Financial supports that provided by the government included loans, monetary rewards to the winner, research funds and paying salary to the players and the coaches (Parshakov & Zavertiaeva, 2018). Investment by government in different researches and development projects can positively enhance an industry innovative performance which is useful for higher performance (Songling et al., 2018; Wei & Liu, 2015). In China, eSports received substantial financial support from the government shown a better performance (Yang et al., 2011).

Besides that, government should also provide non-financial support such as building stadiums and eSports Academy, hiring coaches, providing expensive equipment, further developing the countries' telecommunication infrastructure and introducing high-speed internet (Vukelic & Jorgensen, 2018), organising

eSports events and form governing bodies to support and help tournament organisations and players by informing about the laws and guidelines set by the government (Thiborg, 2009). In addition, non-financial supports for eSports can also be seen in terms of training, advice and consulting, supply of information, technical and technological transfer (Owusu-ansah, 2017).

2.6.3 Independent variable: Service Mechanisms

Service mechanisms is described as how the consumer is served in which it consisted the number of servers and the period of the service duration (Nosek & Wilson, 2018). Service mechanisms served as the media that cannot be used in typical way as a mere technical channel, but it should be used as a method that include policies, media users, resources, games rules, security commitment, and incentives (Wu, Wang, & Tsai, 2010). However, the service mechanisms are viewed as an important factors that involved incentive, security, and fairness which expected to improve the issues of network connection, customer service, security and fairness (Wu et al., 2010).

Incentives used as a motivational tool in online games in which it helps to retain the interest and engagement of the players and to maintain their usage repeatedly (Reiners & Wood, 2015). Motivation of a person to reach a certain goals was mostly influenced by the situational factors such as possible incentives and opportunities that provided by the environment (Bostan, 2009). However, security concern are defined as the perception of consumer or the player towards the security of the online games, such as the essential personal information, integrity, application, software availability that needed the protection of security services from the online game developer (H. H. Chang & Chen, 2009). Besides, fairness is referred to as the standard deviation of game ability amongst players. Therefore, this concept is proved through a comparison of game score experimental fairness (Brun, 2012) and included

distributive justice, procedural justice, and interactional justice (Tax, Brown, & Chandrashekaran, 2006).

In conclusion, service mechanisms served as a motivational tool for the eSports players as rising and strengthening the chance for the players.

2.6.4 Independent variable: Gratification

Gratification defined as relevant to a user's reactions to media use experience (Weibull, 1985; (Wu, Wang, & Tsai, 2010) and adopted in identifying the Internet use of individuals (Huang, 2008; Ko, Cho & Roberts, 2005; Roy, 2009; Huang & Zhou, 2018), especially in the context of eSports which can affect their motivation in it. In addition, gratification has been used ranging from traditional media such as television, radio and newspaper to diverse online application such as blogging, eSports, social networks and others (Wu, Wang, & Tsai, 2010) to fulfill their needs. In the context of eSports, gratification needs can be related with the player's motivations to participate in eSports and it is proven there are a mutual interactions (Wu et al., 2010).

Furthermore, many studies have used this approach in applying gratification perspective to eSports (Myers, 1990; Philips, Rolls, Rouse, & Griffiths, 1995; Vorderer, Hartmann, & Klimmt, 2003; Selnow, 1984; Wigand, Borstelmann, & Boster, 1986; Scharkow, Festl, Vogelgesang, & Quandt, 2015). In this research, gratification is defined as the need that derives from participating in eSports, individuals tend to achieve and therefore contribute to further motivation. Thus, measurements that effectively measure the gratification in this study are enjoyment, social interactions, social presence and spatial presence. Enjoyment showed the need for pleasurable, excitement, fun and challenge to participate in eSports (Ghani & Deshpande, 1994; Moon & Kim, 2001; Wan & Chiou, 2006; Koo, 2009; Tseng, 2011). eSports enable players

to have social interaction in the multiplayer environment and therefore is different with offline gaming (Sherry, Lucas, Greenberg & Lachlan, 2006; Weibel, 2008; Sundberg, 2018). eSports are designed to create a psychological sense of 'being there' inside the game world (Wu, Wang, & Tsai, 2010; Teng, 2010) and therefore satisfy individuals social presence which physically interacting and connecting with other players (Biocca, Harms, & Burgoon, 2003; Gan & Li, 2018). Spatial presence defines as the player perceived that he "physically presence" in the virtual environment (Slater, Lotto, Arnold, & Sanchez-Vives, 2009; Felnhofer, Kothgassner, Hauk, Beutl, Hlavacs, & Kryspin-exner, 2014).

2.6.5 Independent variable: Social Influence

Social influence refers to the change of feelings, thoughts, attitude and behaviour of an individual and the changes is influenced by another individual whether intentionally or unintentionally (Safin, Ali, Rahim, Kheng, & Abas, 2016). The three processes that have identified by Kelman (1958) are compliance, identification and internalization. Subjective norm, social identity and group norm are often been used to represent the three processes (Dholakia, Bagozzi, & Pearo, 2004; Zhou, 2011).

Subjective norm reflects the effect of significant others' opinions on a user's behaviour. The motivation of an individual to play online game will be affected by subjective norm (Hsu and Lu, 2004). Many individuals participate in eSports if their peers are online players or are participants in eSports and motivate them to participate in eSports (Lee, 2009).

Social identity reflects one's conception of self in terms of the relationship to another person or group (Bagozzi and Lee, 2002). When an individual want to maintain a positive and self-defining relationship with their social groups, he

or she may participate in eSports. Therefore, an individual that participate in eSports and has 'identified' with the norms of their social group is expected to have favourable motivation with respect to eSports.

Group norm refers to an agreement among members about their shared goals and expectations (Dholakia et al., 2004). Group norm represents group-related information and will regulate members' interaction (Dholakia et al., 2004). Therefore, it is related to online gaming community (Dholakia et al., 2004). An individual will have favourable motivation to participate in eSports when he or she found that other members in their social group are participating in eSports.

In this study, social influence consisted of compliance, identification and internalization and is defined as the motivation of an individual to participate in eSports is influenced by people who are important to them.

2.7 Hypotheses Development

2.7.1 Relationship between Government support and motivation to participate in eSports

Aryanto and Fransiska (2012) found that there is a positive relationship between government support and motivation. Governments distribute resources for sports development, organise needed infrastructure and competitions, invest in national teams, and reward the best athletes (Parshakov & Zavertiaeva, 2018). This had motivated the athletes to participate in sport actively (Parshakov & Zavertiaeva, 2018). Similarly, in eSports context, government provide sufficient funds and needed facilities would motivate online gaming community to participate in eSports.

Therefore, this study expects that government support can motivate an individual to participate in eSports and the hypothesis is proposed as below:

H_1: There is a positive relationship between government support and motivation of online gaming community to participate in eSports.

2.7.2 Relationship between service mechanisms and motivation to participate in eSports

Service mechanisms is included as an additional antecedent of the online players loyalty (Li, Nguyen, Cheng, & Teng, 2018). Online game providers should provide better service in order to gain the players loyalty, especially on the features that most players are not satisfy with such as detection of opportunity behaviour, inadequate account protection and fraud prevention (Lu & Wang, 2008). In eSports context, eSports developers that provided excellent services would motivate online gaming community to participate in eSports.

Therefore, this study expects that service mechanisms can motivate an individual to participate in eSports and the hypothesis is proposed as below:

H_2: There is a positive relationship between service mechanisms and motivation of online gaming community to participate in eSports.

2.7.3 Relationship between gratification and motivation to participate in eSports

Gratification has been extensively proven to be a dominant and strong determinant of the intention to play games (Ha, Yoon, & Choi, 2007; Hsu & Lu, 2007; Li, Liu, Xu, Heikkilä, & Heijden, 2015). It has been empirically validated in abundant research that individuals are more likely to continue playing and engaging in eSports if there is more fun and pleasure in playing online games (Boyle, Connolly, Hainey, & Boyle, 2012; Wu et al., 2010). According to Huang and Hsieh (2011) and Li, Liu, Xu, Heikkilä, and Heijden (2015), eSports should be seen as a social place because players can use them to develop social relationships and receive feedback from others and provides gratification for players.

Hence, in this study, participation in eSports can helps the players to fulfil the needs of enjoyment, social interaction, social presence and spatial presence which show that gratification factors can help to motivate the gamers to participate in eSports. Online gaming community tends to be enjoyable in the gaming competitive environment. Hence, eSports become a social platform as players can fully utilise it in developing social relationship with others. When players perceive more gratification via eSports, they may have motivation to participate in it. Therefore, this study expects that gratification can motivate an individual to participate in eSports and the hypothesis is proposed as below:

H_3: There is a positive relationship between gratification and motivation of online gaming community to participate in eSports.

2.7.4 Relationship between social influence and motivation to participate in eSports

Individuals may adopt a particular technology not because of their own personal persuasions but because of the views of others (Bagozzi & Dholakia, 2002; Cheung & Lee, 2009; Dholakia, Bagozzi, & Pearo, 2004; Malhotra & Galletta, 1999; Aronson, Timothy, & Akert, 2010; Chiu et al., 2013). Many studies have found that social influence positively influences on an individual's IT usage (Luarn and Lin, 2005; Cheung et al., 2011; Hsu & Lin, 2016). Yang, Chiu, & Chen (2011) have proved that social influence has a significant impact on college students' attitude and behavior of involving in eSports. According to Frostling-Henningsson (2009), Jansz and Tanis (2007) and Jansz and Martens (2005), one of the strongest motivational factor for the online players to engage in gaming is the social side of gaming. Chang, Liu, and Chen (2014) stated that when there is a lot of players participate in eSports, the more likely the individual tends to participate in eSports.

Therefore, this study expects that social influence can motivate an individual to participate in eSports and the hypothesis is proposed as shown in below:

H_4: There is a positive relationship between social influence and motivation of online gaming community to participate in eSports.

2.8 Chapter Summary

Independent variables and dependent variable have been clearly explained in this chapter. From the literature review and several relevant theoretical frameworks, conceptual framework has been developed and proposed to further investigate the relationship between the variables.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, research methodology for data collection had been discussed and research design had been used to determine whether it is a quantitative or qualitative research and specified whether it is exploratory, descriptive or causal research. In this research, primary data had been used as our data collection method from our target respondents (online gaming community) through questionnaires distribution. Next, the sampling design which included target population, sampling frame and sampling location, sampling elements, sampling technique and sampling size were discussed. The research instruments such as description of questionnaires, pre-test, pilot test with the results and data analysis were discussed in detailed. Furthermore, this chapter also included constructs measurement, data processing and data analysis to descript the procedure of this research.

3.1 Research Design

In this research, current researchers used quantitative research as an appropriate tool to transform the numerical data into statistical analysis. Garbarino & Holland (2009) defined quantitative research produces numeric data that can be analysed to verify and predict relationships. The purpose of quantitative research methods are being chosen because it is more suitable in this study as compare to qualitative research methods. This is because quantitative methods used to examine the relationship between variables, confirm a hypothesis about a phenomena (what are the factors that motivate the participation in eSports) and it is highly structured and laid out in advance of the study (Creswell, 2017). However, qualitative research is to explore,

explain and understand the phenomena (Creswell, 2017). It also has flexibility which can emerge and evolve as study develops (Creswell, 2017).

In addition, descriptive study is another research design method that suitable for population-based study that can help the researchers to summarise and describe the relationship between variables (Polit & Hungler, 2004) which are the motivational factors that affecting the participation in eSports. In descriptive research, cross-sectional was used as it can measure the outcomes and the exposures at the same time and it can be extensively proven the relationship (Maninder Singh, 2016).

The intention of conducting this research was to discover the cause and effect relationship between the independent variables (government support, service mechanisms, gratification and social influence) and dependent variable (motivation to participate in eSports) (Vogt, 1999). Hence, causal research was chosen as the research design.

3.2 Data Collection Methods

There are two types of data collection methods which are primary data and secondary data. In this research, only primary data was used to derive relevant data and information in order to obtain meaningful outcomes.

3.2.1 Primary Data

Primary data is the first-hand information collected by researchers directly for the first time (Hox & Boeije, 2005). Primary data can be obtained from survey, questionnaires, observation, interview and so on.

In this research, current researchers aim to obtain the findings regarding online player's motivation in participating eSports. The findings were designed to examine the factors and online gamer's motivation to participate in eSports. Hence, survey method is suitable to collect primary data.

This survey was conducted by distributing questionnaires that were well-customized in relation to the research topic. The questionnaires were distributed to target respondents in selected sampling area in order to obtain relevant information. By distributing questionnaires, current researchers are able to generate data from target respondents within a short period of time (Sekaran and Bougie, 2010). Besides that, questionnaire is useful in developing hypothesis whereby the research questions are able to enhance from the feedback that provided by the respondents during pre-test and pilot test.

3.3 Sampling Design

3.3.1 Target Population

Online gaming community in Malaysia served as target population in this study. Online gaming community is defined as a number of young adult players who stay connected with each other via Internet, develop an online relationship among players, to accomplish the game's goals with shared values and interest and fulfill their needs by playing their own virtual roles (Hsu & Lu, 2007; Kim & Kim, 2018; Williams & Yee, 2008). The online gamers served as the target because they showed the passion and engagement towards online games and play for long period of times (Charlton & Danforth, 2010; Triberti, Milani, Villani, Grumi, Peracchia, Curcio, et al., 2018). However, the size of the target respondents in this study is unknown.

3.3.2 Sampling Frame and Sampling Location

The appropriate sampling frame was not available as there was no listing or platform which detailed stated the information about the online gaming community in Malaysia.

There was no exact sampling location in this study as online gaming community exists in every state in Malaysia. Therefore, current researchers do not specify the location in the study while focused on the characteristics of the online gaming community.

3.3.3 Sampling Elements

In this study, the sampling element focused on the younger online gaming community in Malaysia. The age range of the respondents was between 18 to 35 years old. These respondents has been targeted because majority of online players are between these age range which is consistent with the relevant literature, for instance, 90.3% were aged between 16 to 35 years old in Teng (2018) and Sun (2017) and 70.3% were aged between 21 to 30 years old (Cheung, Shen, Lee, & Chan, 2015). Furthermore, Williams and Yee (2008) stated that youngsters in this age range tend to have more leisure time to participate in online games. This is important to the targeted respondents as they are able to provide relevant opinion and information to this research purposed.

Furthermore, in order to ensure the validity of the information, there were several filter questions to answer in the survey questionnaires. The purpose of setting filter questions was to assist the respondents from answering the questions which do not pertain to them and able to save the researcher's time in collecting meaningless data (Allen, 2017). The respondents had been asked

questions relating to online game playing frequency such as amount of time spent and playing experience.

In addition, general gamer and professional gamer are different in terms of mindset. Hoffman and Nadelson (2010) mentioned that general gamer is more interested in having fun, socially captivating, positive feeling and relax even when the game is challenging or undesirable results were achieved. Professional gamer is someone who has been known as "new celebrities" as he or she enjoys celebrity and generate income who also takes identity management and online branding as essential part of the profession (Hyun, Kyoon, & Renshaw, 2012). Professional gamer prefers single game or single type of game and play for extended periods of time (Hyun, Kyoon, & Renshaw, 2012; Zolides, 2015). Thus, these prove that the game bring benefits at the big-money tournaments that sponsored by major gaming leagues as professional gamers able to master the game (Hyun, Kyoon, & Renshaw, 2012; Zolides, 2015). Hence, both general gamers and professional gamers are included in this study.

3.3.4 Sampling Technique

In this research, probability sampling techniques were not suitable because the population elements of the research was unknown and current researchers were unable to make sure that each population element has no zero-chance of being chosen. Hence, the non-probability sampling methods were more appropriate to obtain the responds from the sample element.

Convenient sampling method was chosen as this is the most suitable sampling technique to carry out the study. Therefore, the questionnaires were distributed to the target respondents to participate in this study as convenient sampling method can be used to collect primary data without additional

requirement or criteria. Hence, sufficient times were given to the respondents in answering the questions in order to generate more reliable and accurate data.

3.3.5 Sampling Size

In measuring the appropriate sample size for the research, there are few factors that have to be considered such as the degree of accuracy, degree of population's diversity, and the number of variables to be examined. Yamane (1967) has provides a formula to calculate sample sizes and this technique will be applied to calculate the sample size in this study. A 95% of confidence level and 5% of sampling error are considered. The formula of calculating the sample size is shown below.

Formula:

$n = N / (1+Ne^2)$

Where, n = the sample size or respondents for this research

N = Size of target population which is the number of tourists in Malaysia

e = the level of precision (a 95% confidence level or 5% precision level)

$n = 14000000 / [(1) + 14000000 (0.05)^2]$

n = **400** (sample size)

Hence, a total number of 500 questionnaires distributed to the target respondents at the target location in order to obtain possible respond rate and prevent data uncollected or in unusable conditions. The total number of questionnaires that had been used in this study is 411 sets.

Figure 3.1 shows the total number of Malaysian gamers in year 2017 which resulted 14 million of gamers.
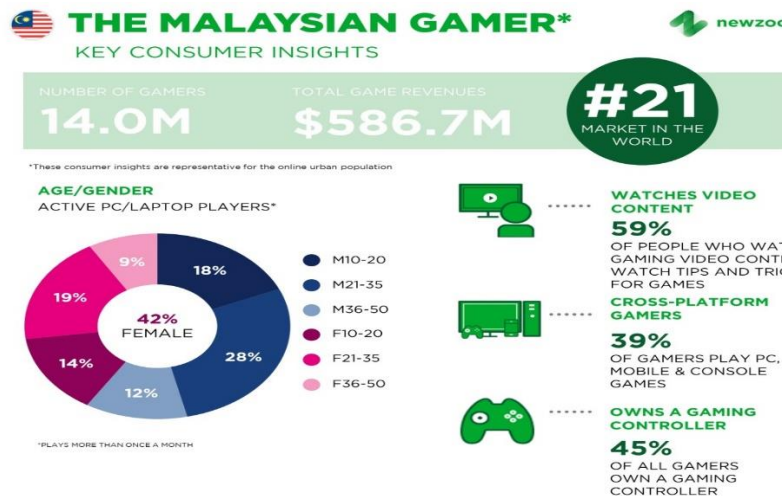
Figure 3.1. Total number of Malaysian gamers in Year 2017. Adopted from Newzoo (2017). The Malaysian Gamer 2017.

3.4 Research Instruments

3.4.1 Questionnaire Design

Research instruments that applied in this study for data collection was self-administered questionnaires with bilingualism availability. Since Malaysia is a multinational country, thus, bilingualism was applied in Malay, English and Chinese versions in order to reach our target respondents effectively. Self-administered questionnaire was selected due to several reasons such as ability to obtain large amount of required data from large number of respondents, ability to build rapport with target respondents and clarify the respondents' doubts. The questionnaire was designed in fixed-alternative questions which required less interviewer skill, shorter time taken to answer and it is easier for respondents to answer (Zikmund, Babin, Carr, & Griffin, 2010). Fixed-alternative questions such as simple-dichotomy question, determinant- choice

question and frequency-determinant question were constructed to form the research questionnaire.

The survey questionnaire consists of four sections. In Section A, there were 4 filter questions for the purpose to make sure the researchers reach the right target respondents and ensure accurate results are able to generate. These filter questions were frequency of playing online game, time duration in each session when playing online game, online game playing experience and the age of the respondents. For Section B, there were 8 questions regarding demographic profiles in order to obtain general profile of the respondents such as gender, education level, occupation, marital status, race, type(s) of playing online game(s), place(s) of playing online game(s) and internet connectivity. As for Section C, there were total 48 items from the constructs to measure the relationship between the independent variables which are government support, service mechanisms, gratification and social influence and dependent variable which is motivation to participate in eSports. The last section of the survey questionnaire is to ask for respondent's opinion about eSports which consist of 4 questions.

Survey questions in Section C were designed by using Likert scale of measurement. The benefits of using Likert scale is to ensure respondents are able to express their attitudes by checking how strongly they agree or disagree with the series of statement, ranging from very positive to very negative attitudes towards some object (McLeod, 2008). In this research, 5 Likert-scale questions was used in Section C because it is more readily comprehensive to the respondents, produce high reliable result, and simple to develop as compared to 7 or 9 point Likert scales (Bertram, 2009). Respondents are required to choose from approximately 5 response alternative (1=strongly disagree, 2= disagree, 3=neutral, 4=agree and 5=strongly agree).

3.4.2 Pre-test

In this study, Pre-test was conducted before pilot test. The purpose of conducting pre-test was to screen the questionnaire to ensure the respondents are able to understand the questions and the structure of the questions are well-designed. Therefore, questionnaires were distributed to eSports experts and academic professors to review the finalised questionnaire. After conducted the pre-test, detected problems such as double-barreled questions and the arrangement of the questions were amended in order to ensure the face validity.

3.4.3 Pilot Study

Pilot study is known as trial run that conducted to measure the statistical variability of the date obtained from a small-scale of respondents who share similar characteristics with the target respondents in full study (Zikmund et al., 2010). 30 sets of questionnaires were prepared and distributed to the online players who share the same characteristics with targeted respondents. Pilot study was conducted to measure accuracy, reliability and validity as well as the internal consistency of survey questionnaire as amendment and refining of questionnaires was carried out in order to ensure the questions are clear, attractive and suitable for this study. Reliability test was then conducted to test the reliability.

3.4.3.1 Result of Pilot Study

According to Zikmund et al., (2010), coefficient alpha range in value from 0 meaning no consistency, to 1, meaning complete consistency. Scales with coefficient alpha value between 0.8 and 0.95 is considered very good

reliability; coefficient alpha value between 0.7 and 0.8 is considered good reliability; coefficient alpha value between 0.6 to 0.7 considered fair reliability and coefficient alpha value below 0.6 is considered poor reliability. As shown in Table 3.1, the Cronbach's Alpha value for the constructs ranges from 0.8 to 0.9 which was considered very reliable.

Table 3.1

Cronbach's Alpha Value

Construct	Number of Items	Cronbach's Alpha
Government Support	6	0.944
Service Mechanisms	9	0.908
Gratification	12	0.937
Social Influence	9	0.883
Motivation to participate in eSports	12	0.889

Source: Developed for the research

3.5 Construct Measurement

3.5.1 Origin of Construct

In this study, the questionnaire was designed by adopting and adapting the questionnaires from other researchers and some of the questions were self-developed from reviewing other related research journals. From Table 3.2 to Table 3.6 are the origin of the questionnaire and the number of items in this study.

Table 3.2

The Origin of Construct (Government Support) in the Research

No	Question		Sources
1	The government provides incentives to encourage eSports activities.	Adapted	(Chen, Zhou, Zhou, & Xue, 2017)
2	The government provides advanced technologies (e.g. internet accessibility) to facilitate eSports.	Adapted	(Chen et al., 2017)
3	The government introduced eSports Academy to serve as a platform for competitive gaming.	Adapted	(Chen et al., 2017)
4	The government agencies are assisting the growth of eSports. (e.g. eSports Malaysia)	Adapted	(Chen et al., 2017)
5	The government enables finances (e.g. bank loan) with discounted interest to support eSports development.	Adapted	(Meiying, 2016)
6	The government offers research funds meant for eSports development.	Adapted	(Meiying, 2016)

Source: Developed for the research

Table 3.3

The Origin of Construct (Service Mechanisms) in the Research

No	Question		Sources
1	The online game company will punish the players who use fabricated programs.	Adapted	(Wu et al., 2010)

2	If a vital problem occurs in online game, the company in charge will tackle to compensate the loss	Adopted	(Wu et al., 2010)
3	I feel that online game is fair in allocating resource (e.g. virtual treasure/item, virtual money and trading modes).	Adopted	(Wu et al., 2010)
4	The company of the online game offers incentives for its continued play (e.g. racing, to form a party or some festival activities).	Adopted	(Wu, Wang, & Tsai, 2010)
5	The company of the online game offers incentives for its continued play (e.g. racing, to form a party or some festival activities).	Adopted	(Wu et al., 2010)
6	I get rewarded for my continued participation of the online game (e.g. virtual money, equipment or reality rewards).	Adopted	(Wu et al., 2010)
7	I feel the game company can offer the security on data transformation.	Adopted	(Wu et al., 2010)
8	I feel the game company can protect the players' privacy.	Adopted	(Wu et al., 2010)
9	I feel the internet connection for online game is of stable quality.	Adopted	(Wu et al., 2010)

Source: Developed for the research

Table 3.4

*The Origin of Construct (Gratification) in the Researc*h

No	Question		Sources
1	When interact with other players, I am able to show what kind of player I really am.	Adopted	(Wu et al., 2010)
2	I trust that other players in online game will assist me if I need it.	Adopted	(Wu et al., 2010)
3	Whenever I see other players are confused, I offer to help.	Adopted	(Wu et al., 2010)
4	Playing online game is exciting.	Adopted	(Wu et al., 2010)
5	Playing online game give me lots of pleasure.	Adopted	(Wu et al., 2010)
6	I enjoy playing online game.	Adopted	(Wu et al., 2010)
7	I think my online friends understand me better than any other people.	Adopted	(Wu et al., 2010)
8	Playing online game can let me communicate to others.	Adopted	(Wu et al., 2010)
9	Going online has made it easier for me to make friends.	Adopted	(Wu et al., 2010)
10	Part of my world disappears whenever I disconnected to the online game	Adopted	(Wu et al., 2010)
11	Online game make me felt like I was in the world where the game created.	Adopted	(Wu et al.,

			2010)
12	Online game has become part of my world.		
		Adopted	(Wu et al., 2010)

Source: Developed for the research

Table 3.5

The Origin of Construct (Social Influence) in the Research

No	Question		Sources
1	It is necessary for my group of friends to participate in online games in order to be accepted among peers.	Adapted	(Ifinedo, 2016)
2	My group of friends views online games as similar to my point of view.	Adapted	(Ifinedo, 2016)
3	Unless my group of friends sees the benefits of participating in online games, otherwise, they would not spent extra effort in it.	Adapted	(Ifinedo, 2016)
4	In our interactions, my group of friends feels there is a sense of ownership about the participation of online games.	Adapted	(Ifinedo, 2016)
5	My group of friends talks about the online games to other friends that have not joined.	Adapted	(Ifinedo, 2016)
6	My group of friends is proud of their online games participation.	Adapted	(Ifinedo, 2016)
7	Online games are important to my group of friends. (e.g. playing online game is considered as a status symbol among my friends)	Adapted	(Ifinedo, 2016)
8	My groups of friends participate in online games as such entertainment provides some underlying	Adapted	(Ifinedo, 2016)

social benefits.

9	My group of friends participating in online games primarily because of the similarity between our values on the benefits provided.	Adapted	(Ifinedo, 2016)

Source: Developed for the research

Table 3.6

The Origin of Construct (Motivation to participate in eSports) in the Research

No	Question		Sources
1	The desire to challenge and compete with others.	Adopted	(Sun, 2017)
2	The desire to gain power, progress rapidly.	Adopted	(Sun, 2017)
3	For the prestige of being a good player.	Adopted	(Sun, 2017)
4	Finding and knowing things that most other players do not know about.	Adopted	(Sun, 2017)
5	Having interest in analysing the underlying rules and system in order to optimise champion's performance.	Adopted	(Sun, 2017)
6	Conversing and chatting with others.	Adopted	(Sun, 2017)
7	The desire to form long-term meaningful relationships with others.	Adopted	(Sun, 2017)
8	Deriving satisfaction from being part of a group effort.	Adopted	(Sun, 2017)
9	Using the online environment to avoid thinking about real life problems.	Adopted	(Sun, 2017)
10	Having an interest in masteries of different	Adopted	(Sun,

	champions.		2017)
11	The discovery of the game (e.g. history and the various phenomena) that occur within the game.	Adopted	(Sun, 2017)
12	To create a character with background story and interacting with other players to create an improvised story.	Adopted	(Sun, 2017)

Source: Developed for the research

3.5.2 Scale of Measurement

According to Sekaran & Bougie (2010), scale of measurement is defined as a tool or instrument which used to measure the variable by categorizing and quantifying the variables (Sekaran & Bougie, 2010). Scale of measurement is divided into three types which are nominal scale, ordinal scale and interval scale.

3.5.2.1 Nominal Scale

According to Sekaran & Bougie (2010), nominal scale represents the most basic level of measurement. Nominal scale helps researchers to identify and classify an object that have been assigned a value. Nominal scale has no quantities are being represented, therefore, the value can be but does not have to be number. For instance, respondent's gender is classified into two groups which are male and female. There are several questions in Section B that are designed by using nominal scale which question 1 (Gender), question 3 (Occupation), question 5 (Marital status), question 6 (Race), question 7 (type of playing online game), question 8 (place of playing online game) and question 9 (internet connectivity).

Example of nominal scale:

Gender
☐ Male

☐ Female

3.5.2.2 Ordinal Scale

Ordinal scale which is also known as ranking scale consist of nominal attributes but the difference is ordinal scale allow things to be arranged according to the rank-orders, however, it does not indicate the value of the interval between rankings (Sekaran & Bougie, 2010). For instance, respondent's educational level that arranged in rank orders. There are questions in Section A and Section B that is designed by using ordinal scale which is question 4 (Age Group) and question 2 (Educational level) respectively.

Example of ordinal scale:

Educational Level

☐ Primary school   ☐ Bachelor

☐ Secondary school   ☐ Master and above

☐ Pre-U or Foundation

3.5.2.3 Interval Scale

Interval scale consists of both nominal and ordinal attributes. The additional attribute is nominal scale capture information about differences in quantities of a concept meaning that it has an arbitrary origin (no true zero) that does not exactly represent the phenomena (Sekaran & Bougie, 2010). Interval scale is

carried out by using Likert-scale which can determine how strong the agreement of respondent towards the statement. Section C questions were designed by using this scale.

Example of interval scale:

What have motivated you to participate in eSports?

No.		SD	D	N	A	SA
2	The desire to gain power, progress rapidly.	1	2	3	4	5

3.6 Data Processing

Data processing refers to preparation and description of data. There are several steps in this process which included data checking, data editing, data coding, and data transcribing after obtained through questionnaires distribution.

3.6.1 Data Checking

Data checking is necessary and it enables the researchers to make amendment and correction on the questionnaire before it is completely conducted. The errors that detected have corrected after conducted pilot test.

3.6.2 Data Editing

Data editing is an important process that enable the researchers to ensure the data are complete, accurate, consistence and reach the optimal quality levels before coding and transfer to storage (Zikmund et al., 2010). By editing the data, questionnaires with unclear answer or omitted by the respondents were eliminated as unacceptable or incomplete questionnaires in order to ensure the reliability of the study.

3.6.3 Data Coding

Data coding refers to allocate number to respondents' responses before entering into database (Sekaran & Bougie, 2010). Table 3.7 shows the coding of the questions.

Table 3.7

Label and Coding Assigned to Filter Questions (Section A)

Question No.	Label	Code
1.	Frequency of plying online game	1 as 1-5 times a week
		2 as 6-10 times a week
		3 as 11-15 times a week
		4 as 16-20 times a week
		5 as More than 20 times a week
		99 as Missing data

2.	Time duration in each session when playing online game	1 as Less than 2 hours
		2 as 2-5 hours
		3 as 6-10 hours
		4 as 11-20 hours
		5 as More than 20 hours
		99 as Missing data
3.	Online game playing experience	1 as less than I year
		2 as 1-3 years
		3 as 4-5 years
		4 as 6-7 years
		5 as More than 7 years
		99 as Missing data
4.	Age Group	1 as 16-20 years old
		2 as 21-25 years old
		3 as 26-30 years old
		4 as 31-35 years old
		5 as 36-40 years old
		6 as 41-45 years old
		7 as 46-50 years old
		8 as 51 years old and above
		99 as Missing data

Source: Developed for the research

Table 3.8

Label and Coding Assigned to Respondent's General Information (Section B)

Question No.	Label	Code
1.	Gender	1 as Male
		2 as Female
2.	Educational Level	1 as Primary school
		2 as Secondary school
		3 as Pre-U or Foundation
		4 as Bachelor
		5 as Master and above
		99 as Missing data
3.	Occupation	1 as Employed
		2 as Unemployed
		3 as Student
		4 as Retired
		99 as Missing data
4.	Marital Status	1 as Single
		2 as Married
		3 as Divorced or widowed
		4 as Other (please specify)
		99 as Missing data
5.	Race	1 as Malay
		2 as Chinese
		3 as Indian
		4 as Other (please specify)
		99 as Missing data
6.	Type(s) of playing online game	1 as Action
		2 as Adventure
		3 as Role-playing game

		4 as Simulation
		5 as Sports
		6 as Strategy
		7 as Classic or Puzzle
		8 as War games
		9 as Other (please specify)
		99 as Missing data
7.	Place(s) of playing online game	1 as Home
		2 as Campus
		3 as Cyber café
		4 as Other (please specify)
		99 as Missing data

Source: Developed for the research

Table 3.9

Label and Coding Assigned to Government Support, Service Mechanisms, Gratification, Social Influence and Motivation to participate in eSports (Section C)

Question No.	Label	Code
48 questions	Independent Variables: • Government Support • Service Mechanisms • Gratification • Social Influence Dependent Variable: • Motivation to participate in	1 as Strongly Disagree 2 as Disagree 3 as Neutral 4 as Agree 5 as Strongly Agree

eSports		

Source: Developed for the research

Table 3.10

Label and Coding Assigned for Respondent's opinion in eSports (Section D)

Question No.	Label	Code
1.	Which game(s) do you normally play?	1 as League of Legends
		2 as Dota 2
		3 as Fornite
		4 as PUBG
		5 as FIFA
		6 as Splatoon 2
		7 as Overwatch
		8 as Smite
		9 as Heartstone
		10 as Super Smash Bros
		11 as Starcraft 2
		12 as Counter-Strike: Global Offensive
		13 as Starcraft: Brood War
		14 as Rocket League
		15 as NBA2K
		16 as Battlerite
		17 as Heroes of the Storm
		18 as Paladins
		19 as Valnglory
		20 as Other (please specify)
		99 as Missing data

2.	What other factors would motivate you to participate in eSports?	1 as Self-improvement 2 as Acquisition of knowledge 3 as Build leadership skill 4 as Build teamwork 5 as Enhance critical thinking skill 6 as Enhance problem solving skill 7 as Increased memory capacity 8 as Provide job training skills 99 as Missing data
3.	In your opinion, what makes eSports (video game competition) popular?	1 as The game being simpler and easy to follow 2 as The game being complex with many rules 3 as The tense interactions between players 4 as Accessible to casual player 5 as Accessible to serious player 99 as Missing data
4.	Based on your opinion, eSports should be considered as "Sport" because	1 as Video games take coordination, training and are very taxing on the mind 2 as Video games require attention, focus and very fast response time 3 as Even though it is not a physical, an electronic game requires a lot of energy to play 4 as It is credibly competitive 5 as It takes time, effort and set of skills to become a professional

gamer; not everyone can do it

6 as Many video games require strategy and tactics

7 as Other (please specify)

99 as Missing data

Source: Developed for the research

3.6.4 Data Transcribing

Data transcribing is the final step in data processing. In this step, all the coded data were transferred from the questionnaires into the software (SmartPLS) that used to generate the results. The purpose of using SmartPLS software is to analyse the data and run statistical test to obtain more accurate results regarding this study.

3.7 Data Analysis

Partial Least Squares-Structural Equation Modelling (PLS-SEM) has experienced increasing dissemination in a variety of fields in recent years with non-normal data, small sample sizes and the use of formative indicators being the most prominent reasons for its application (Hair, Joe, Hopkins & Kuppelwieser, 2014). It is a statistical analysis technique where normally known as multivariate analysis method. Multivariate analysis method is used to test and explain the relationships among multiple variables. By using this method, which independent variables (government support, service mechanisms, gratification and social influence) are the most influential factor in motivating the participation in eSports were identified.

3.8 Chapter Summary

In conclusion, primary data was used to obtain relevant information. Besides, sampling designed and construct of measurement were discussed in this chapter and the questionnaires were distributed successfully to the respondents. Before the pilot test is conducted to test the reliability between variables, pre-test was conducted in order to ensure that the questionnaires are well-designed.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The result of data from the questionnaires is discussed in this chapter. A total of 411 sets questionnaires' data were obtained for the full study and the result was generated by using Smart PLS method.

4.1 Descriptive Analysis

Descriptive analysis analyses participants' gaming behaviour, demographic profile and their opinion in eSports. The detail of the results was specifically discussed at the following sections.

4.1.1 Gaming behaviour of the research respondents

In this research, there were 411 respondents served as the target respondents. Table 4.1 and Figure 4.1 show the frequency of playing online game(s). According to Table 4.1 and Figure 4.1, a majority of the respondents with of total number of 235 (57.18%) played online game(s) for 6 to 10 times a week. Besides, a total of 76 (18.49%) respondents played online game(s) for 11 to 15 times a week, 72 (17.51%) respondents played online game(s) for more than 20 times a week, and 28 (6.81%) respondents played online game(s) for 16 to 20 times a week. However, none of the respondents played online game(s) for 1 to 5 times a week.

Table 4.1:

Frequency of Playing Online Game(s)

Gaming Behaviour	Frequency	Percentage (%)
Frequency of playing online game(s)		
1-5 times a week	0	0.00
6-10 times a week	235	57.18
11-15 times a week	76	18.49
16-20 times a week	28	6.81
More than 20 times a week	72	17.51

Source: Developed for the research.
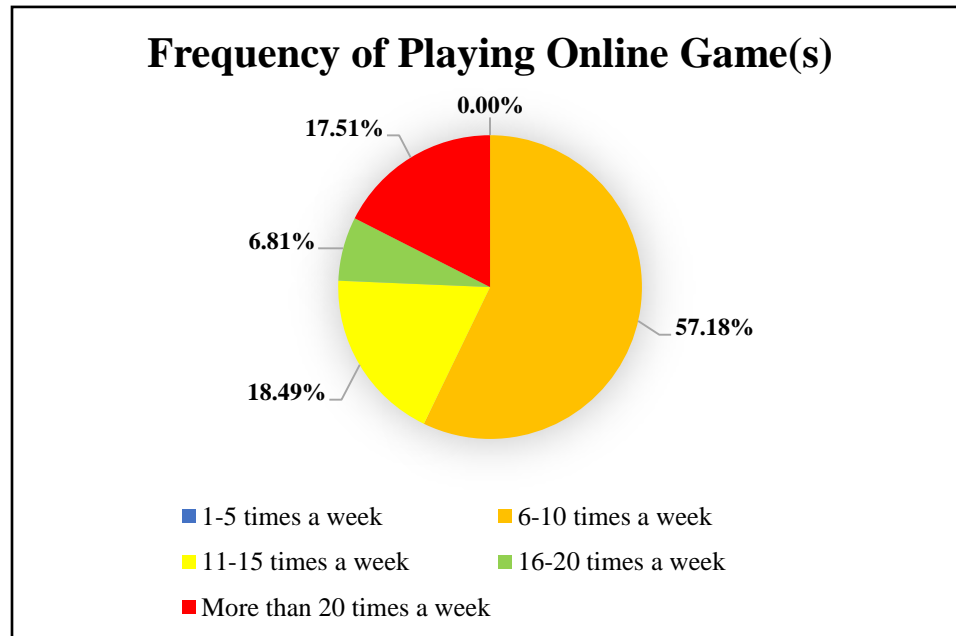
Figure 4.1. Frequency of Playing Online Game(s). *Source*: Developed for the research.

Table 4.2 and Figure 4.2 show the time duration in each session when playing online game(s). Majority of respondents with a total number of 249 (60.58%)

played the online game(s) in between 2 to 5 hours in each session. Furthermore, a total of 74 (18.00%) respondents played the online game(s) in between 6 to 10 hours in each session, 48 (11.68%) respondents played the online game(s) in between 11 to 20 hours in each session, and 40 (9.73%) respondents played the online game(s) for more than 20 hours in each session. None of the respondents played the online game(s) for less than 2 hours.

Table 4.2:

Time duration in each session when playing online game(s)

Gaming Behaviour	Frequency	Percentage (%)
Time duration in each session when playing online game(s)		
Less than 2 hours	0	0.00
2-5 hours	249	60.58
6-10 hours	74	18.00
11-20 hours	48	11.68
More than 20 hours	40	9.73

Source: Developed for the research.
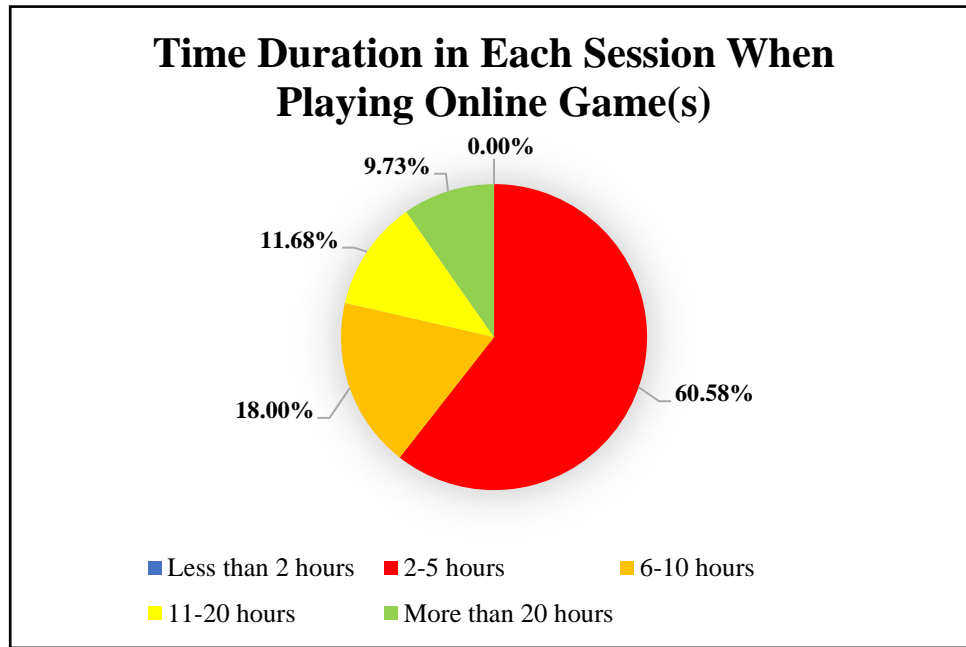
Figure 4.2. Time Duration in Each Session When Playing Online Game(s).
Source: Developed for the research.

Table 4.3 and Figure 4.3 show the respondents' online game(s) playing experience. Majority of respondents with a total number of 137 (33.33%) had more than 7 years of online game(s) playing experience. Besides, a total of 135 (32.85%) respondents had 1 to 3 years of online game(s) playing experience, 87 (21.17%) respondents had 4 to 5 years of online game(s) playing experience, 52 (12.65%) respondents had 6 to 7 years of online game(s) playing experience, and none of the respondents had less than one year of online game(s) playing experience.

Table 4.3:

Online game(s) playing experience

Gaming Behaviour	Frequency	Percentage (%)
Online game(s) playing experience		
Less than 1 year	0	0.00
1-3 years	135	32.85
4-5 years	87	21.17
6-7 years	52	12.65
More than 7 years	137	33.33

Source: Developed for the research.
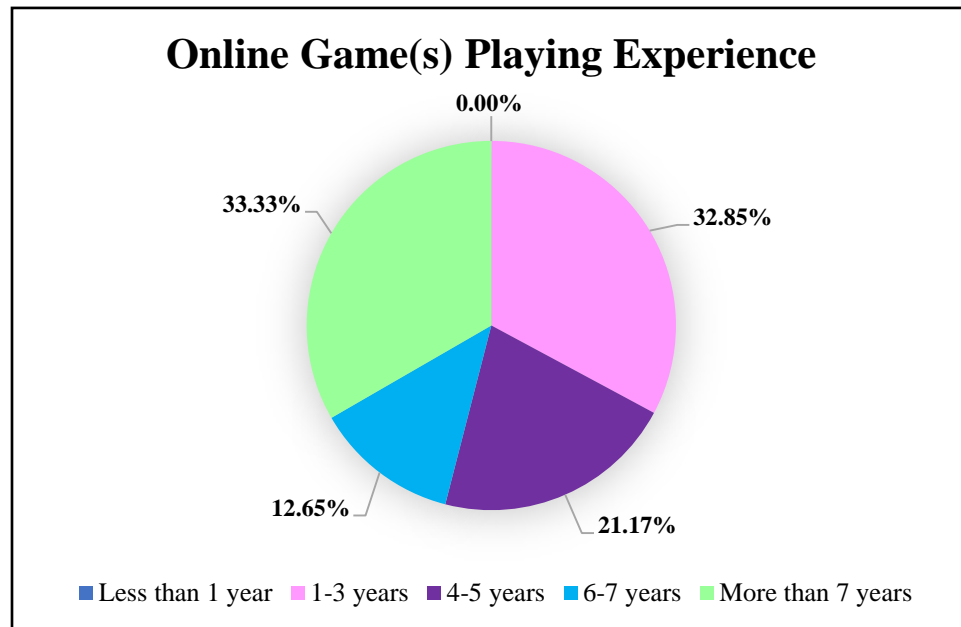
Figure 4.3. Online Game(s) Playing Experience. *Source*: Developed for the research.

Table 4.4 and Figure 4.4 show the age group of the respondents. Majority of the respondents with a total number of 242 (58.88%) were between 21 to 25

years old. A total of 127 (30.9%) respondents were between 16 to 20 years old, 26 (6.33%) respondents were between 26 to 30 years old, 15 (3.65%) respondents were between 31 to 35 years old, and only 1 (0.24%) respondent was between 16 to 20 years old. None of the respondents was between 41 to 45 years old, 46 to 50 years old, and 51 years old and above.

Table 4.4:

Age Group

Gaming Behaviour	Frequency	Percentage (%)
Age Group		
16-20 years old	127	30.90
21-25 years old	242	58.88
26-30 years old	26	6.33
31-35 years old	15	3.65
36-40 years old	1	0.24
41-45 years old	0	0
46-50 years old	0	0
51 years old and above	0	0

Source: Developed for the research.
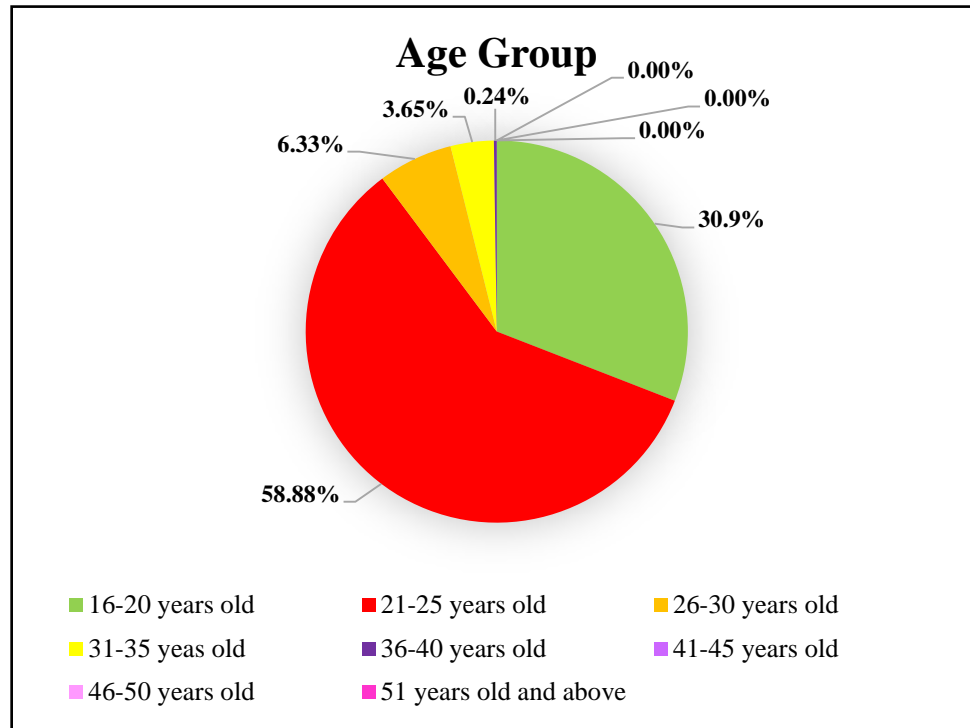
Age Group

Figure 4.4. Age Group. *Source*: Developed for the research.

4.1.2 Demographic profile of the research respondents

In this section, general profile of the respondents such as gender, education level, occupation, marital status, race, type of online game(s) played, place of playing online game(s) and internet connectivity was discussed.

Table 4.5 and Figure 4.5 show a total of 287 (69.83%) were male respondents and 124 (30.17%) were female respondents.

Table 4.5:

Gender

Demographic Characteristic	Frequency	Percentage (%)
Gender		
Male	287	69.83
Female	124	30.17

Source: Developed for the research.
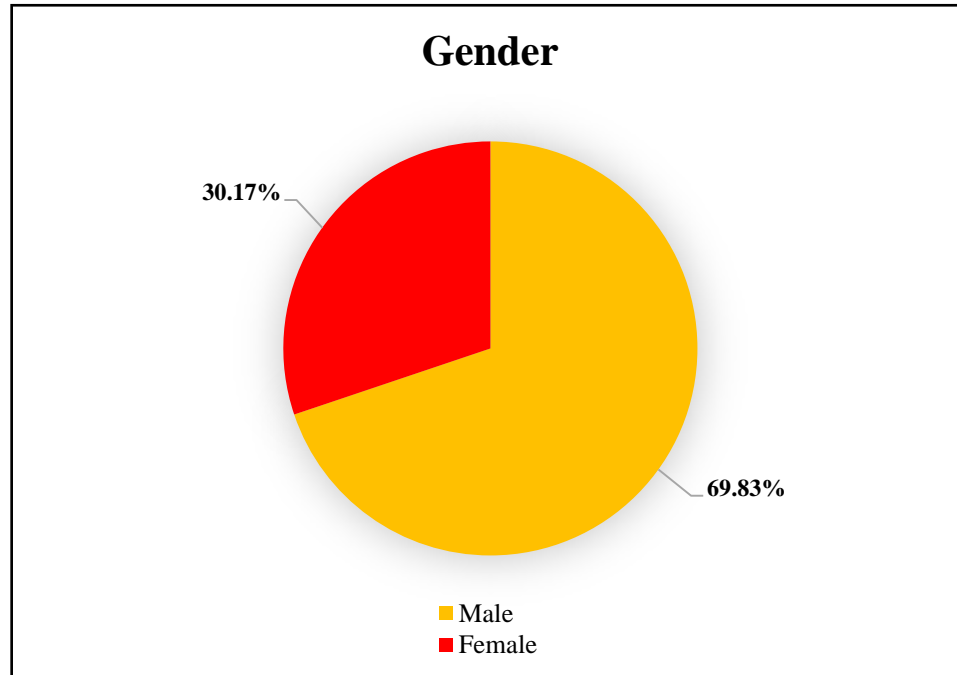
Figure 4.5. Gender. *Source*: Developed for the research.

Table 4.6 and Figure 4.6 show the educational level of the respondents. The top three groups of respondents in the aspect of highest qualification were Bachelor (n=312, 75.91%), Pre-U or Foundation (n=75, 18.25%) and Secondary school (n=22, 5.35%).

Table 4.6:

Educational Level

Demographic Characteristic	Frequency	Percentage (%)
Educational Level		
Primary school	1	0.24
Secondary school	22	5.35
Pre-U or Foundation	75	18.25
Bachelor	312	75.91
Master and above	1	0.24

Source: Developed for the research.
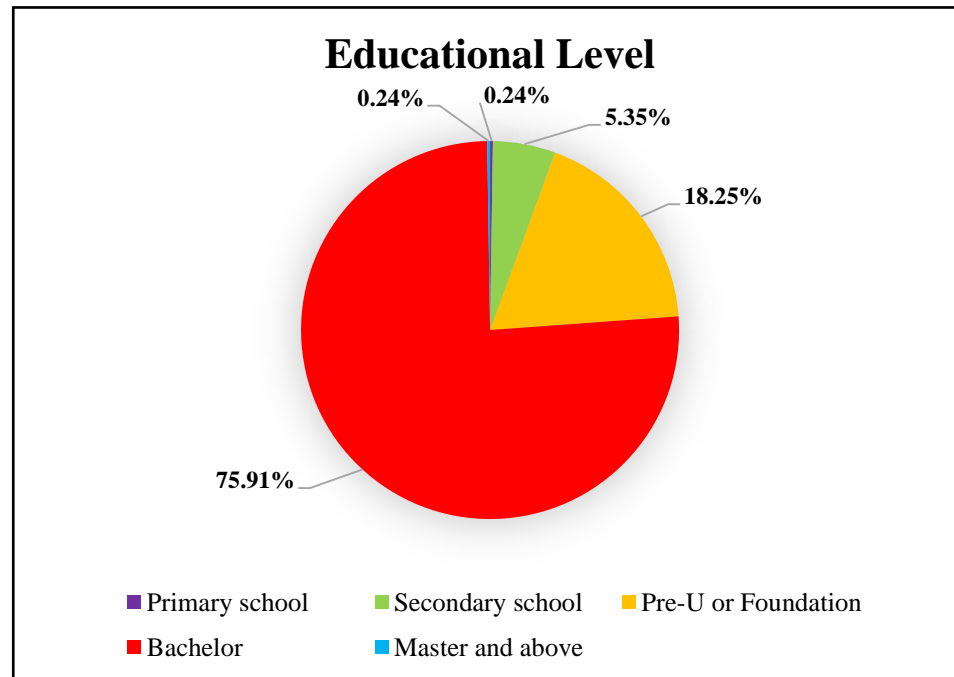
Figure 4.6. Educational Level. *Source*: Developed for the research.

Table 4.7 and Figure 4.7 show the occupation of the respondents. Majority of the respondents with a total number of 346 (84.18%) were student. A total of 53 (12.89%) respondents were employed and 12 (2.92%) of the respondents were unemployed. None of the respondents was retired.

Table 4.7:

Occupation

Demographic Characteristic	Frequency	Percentage (%)
Occupation		
Employed	53	12.89
Unemployed	12	2.92
Student	346	84.18
Retired	0	0.00

Source: Developed for the research.
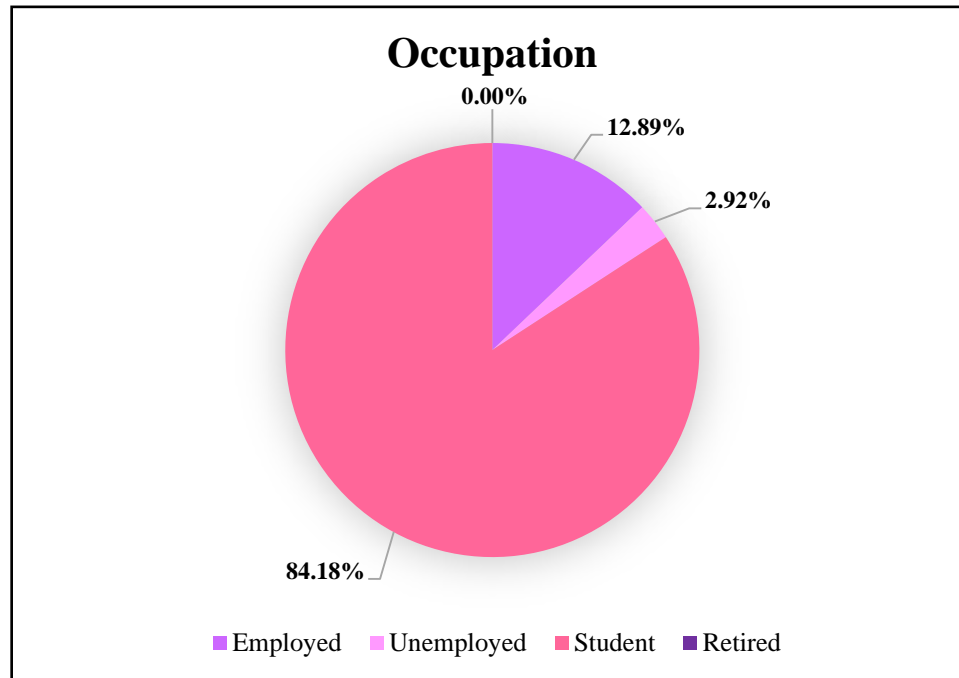
Figure 4.7. Occupation. *Source*: Developed for the research.

Table 4.8 and Figure 4.8 show the marital status of the respondents. Majority of the respondents with a total number of 395 (96.11%) were single. Besides, a total of 15 (3.65%) respondents were married and 1 (0.24%) respondent was divorced or widowed.

Table 4.8:

Marital Status

Demographic Characteristic	Frequency	Percentage (%)
Marital Status		
Single	395	96.11
Married	15	3.65
Divorced/ widowed	1	0.24

Others	0	0.00

Source: Developed for the research.
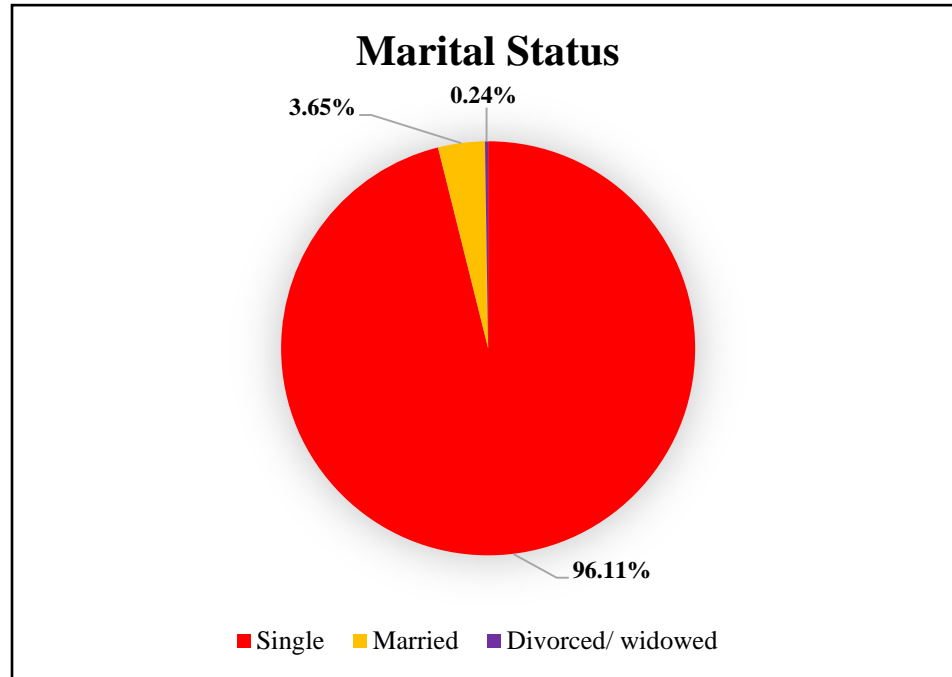
Figure 4.8. Marital Status. *Source*: Developed for the research.

Table 4.9 and Figure 4.9 show the races of the respondents. The race characteristic was composed of 77 (18.73%) Malay respondents, 229 (55.72%) Chinese respondents, 100 (24.33%) Indian respondents and 5 (1.22%) respondents were in other race which was Iban.

Table 4.9:

Race

Demographic Characteristic	Frequency	Percentage (%)
Race		
Malay	77	18.73

Chinese	229	55.72
Indian	100	24.33
Others	5	1.22

Source: Developed for the research.
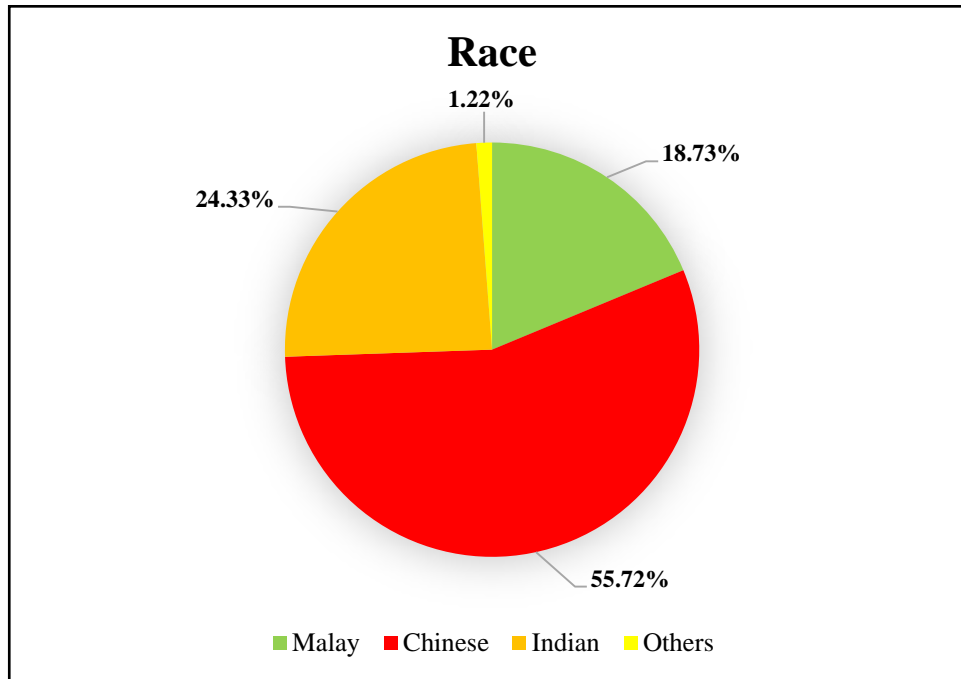
Figure 4.9. Race. *Source*: Developed for the research.

Table 4.10 and Figure 4.10 show the types of online game(s) played by the respondents. Majority types of online game(s) played by the respondents are action games (279), strategy games (269), war games (204), sports games (149), adventure games (115) and role-playing games (99).

Table 4.10:

Type(s) of online game(s) played

Demographic Characteristic	Frequency
Type(s) of online game(s) played	
Action	279
Adventure	115
Role-playing game	99
Simulation	32
Sports	149
Strategy	269
Classic/ Puzzle	45
War games	204
Others	5

Source: Developed for the research.
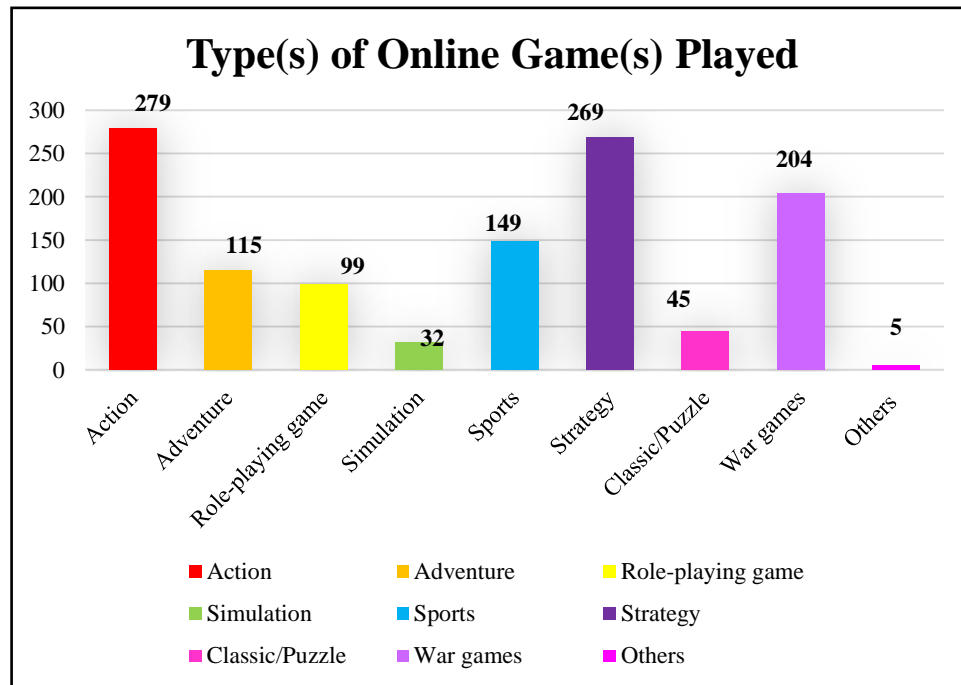
Figure 4.10. Type(s) of Online Game(s) Played. *Source*: Developed for the research.

Table 4.11 and Figure 4.11 show the place(s) respondents played online game(s). Majority of the respondents with a total number of 382 played online game(s) at home. A total of 337 respondents played online game(s) at cybercafé and 71 respondents played online game(s) at the campus.

Table 4.11:

Place(s) of playing online game(s)

Demographic Characteristic	Frequency
Place(s) of playing online game(s)	
Home	382
Campus	71
Cyber café	337
Others	2

Source: Developed for the research.
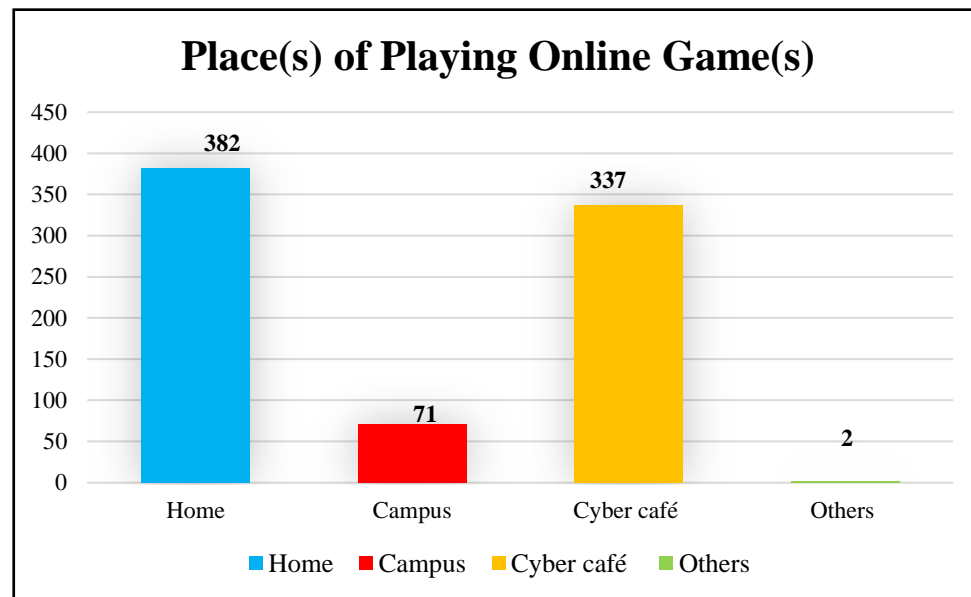
Figure 4.11. Place(s) of Playing Online Game(s). *Source*: Developed for the research.

Table 4.12 and Figure 4.12 show the type(s) of internet connectivity used by the respondents when playing online game(s). The top three types of internet connectivity used were wireless (297), LAN (102) and cable modern (54).

Table 4.12:

Internet connectivity

Demographic Characteristic	Frequency
Internet connectivity	
ADSL	12
Dial-p	6
Cable modern	54
LAN	102
Leased line	6
Wireless	297
Others	2

Source: Developed for the research.
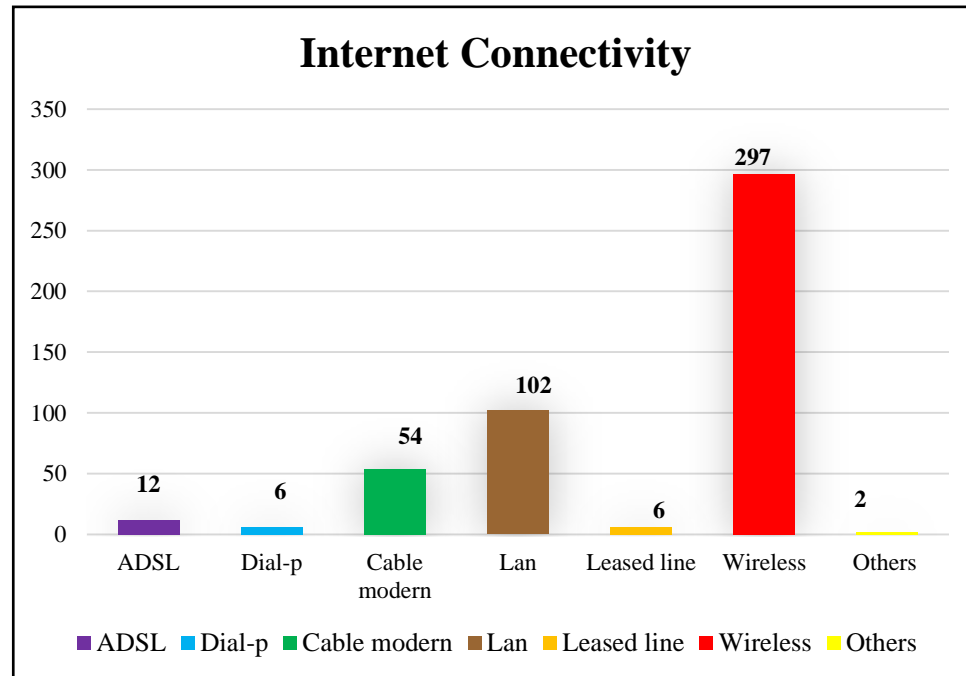
Figure 4.12. Internet Connectivity. *Source*: Developed for the research.

4.1.3 Respondent's opinion in eSports

This section discussed about the respondent's opinion in eSports. Table 4.13 and Figure 4.13 show the type(s) of game(s) that the respondents usually played. The top five of game(s) played by the respondents were PUBG (240), DOTA 2 (147), FIFA (132), League of Legends (LoL) (128) and Counter-Strike: Global Offensive (CS:GO) (101).

Table 4.13:

Which games do you normally play?

Respondent's Opinion in eSports	Frequency
Which games do you normally play?	
League of Legends	128

Dota 2	147
Fortnite	24
PUBG	240
FIFA	132
Splatoon 2	10
Overwatch	32
Smite	12
Hearthstone	18
Super Smash Bros	13
Starcraft 2	31
Counter-Strike: Global Offensive	101
Starcraft: Brood War	8
Rocket League	12
NBA2K	74
Battlerite	12
Heroes of the Storm	8
Paladins	19
Valnglory	16
Others	70

Source: Developed for the research.
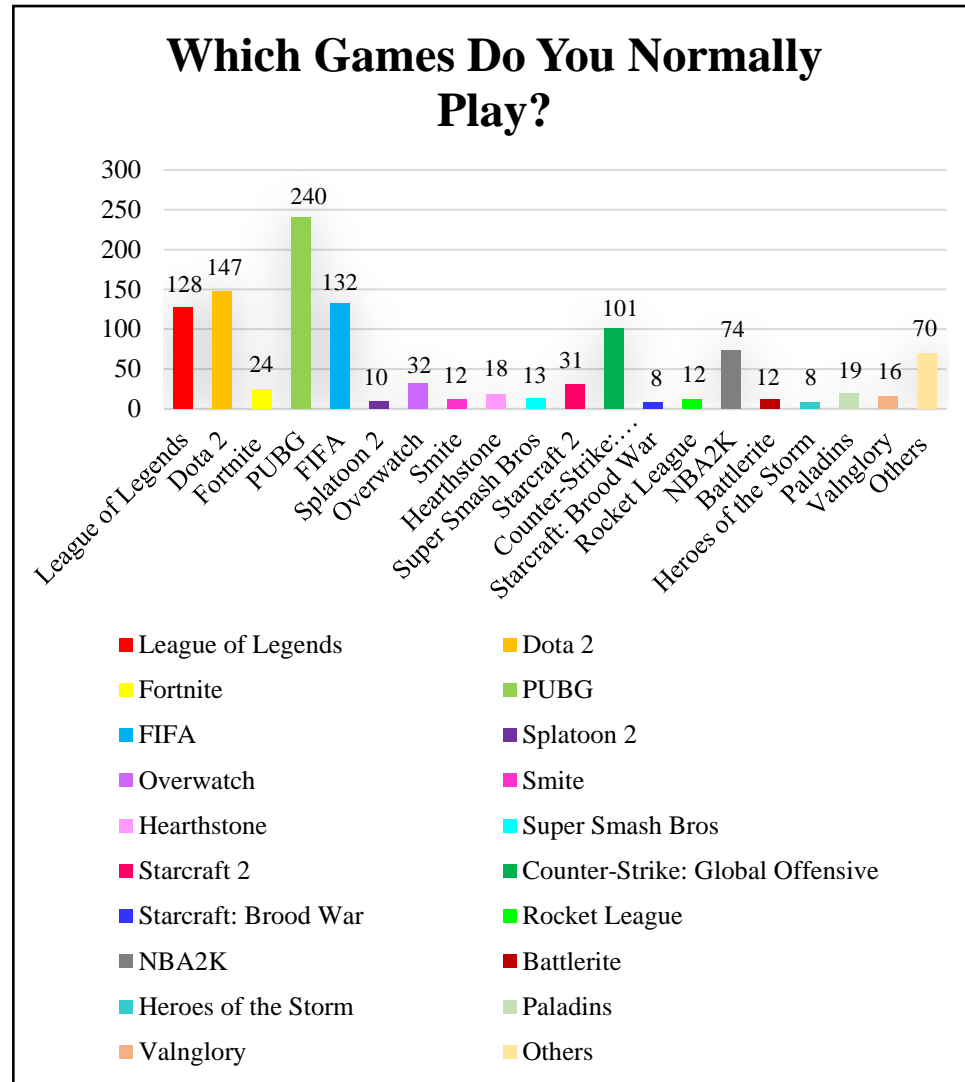
Figure 4.13. Which Games Do You Normally Play? *Source*: Developed for the research.

Table 4.14 and Figure 4.14 show the other factors that would motivated the respondents to participate in eSports. The top four factors that motivated the respondents to participate in eSports were teamwork building (246), self-improvement (235), enhance critical thinking skill (180) and acquisition of knowledge (162).

Table 4.14:

What other factors motivate you to participate in eSports?

Respondent's Opinion in eSports	Frequency
What other factors motivate you to participate in eSports?	
Self-improvement	235
Acquisition of knowledge (e.g. understanding on strategies used)	162
Build leadership skill (e.g. being a leader)	142
Build teamwork (e.g. complete a task together)	246
Enhance critical thinking skill	180
Enhance problem solving skill	158
Increased memory capacity	77
Provide job training skills	41
Others	10

Source: Developed for the research.
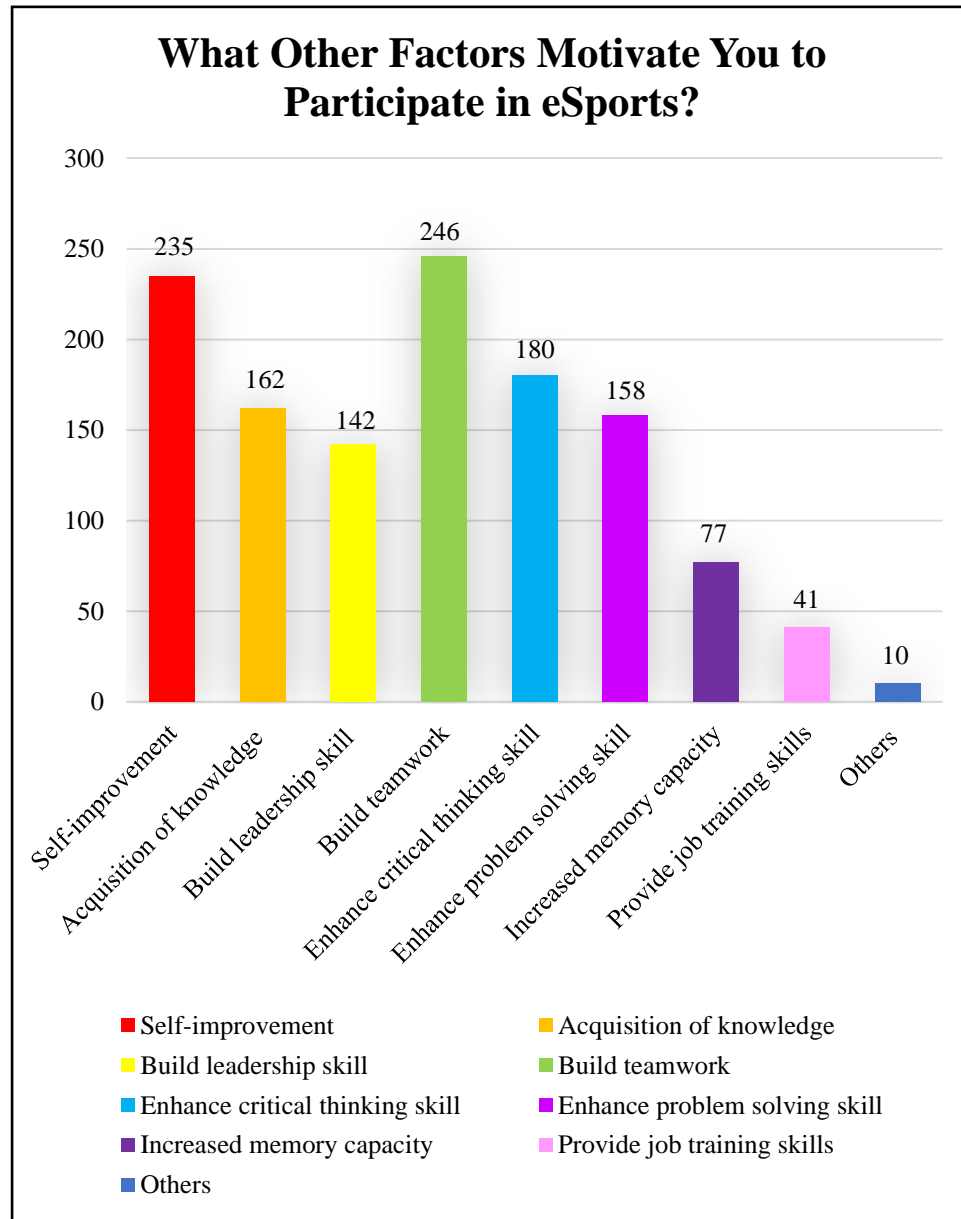
Figure 4.14. What Other Factors Motivate You to Participate in eSports?

Source: Developed for the research.

Table 4.15 and Figure 4.15 show the opinion of the respondents on what makes eSports popular. From the respondents' opinion, the top three reasons that make eSports popular were because of the tense interactions between

players (247), the game being simple and easy to follow (203) and accessible to casual players (161).

Table 4.15:

In your opinion, what makes eSports (video game competition) popular?

Respondent's Opinion in eSports	Frequency
In your opinion, what makes eSports (video game competition) popular?	
The game being simple and easy to follow	203
The game being complex with many rules	103
The tense interactions between players	247
Accessible to casual players	161
Accessible to the more serious players	92
Other	6

Source: Developed for the research.
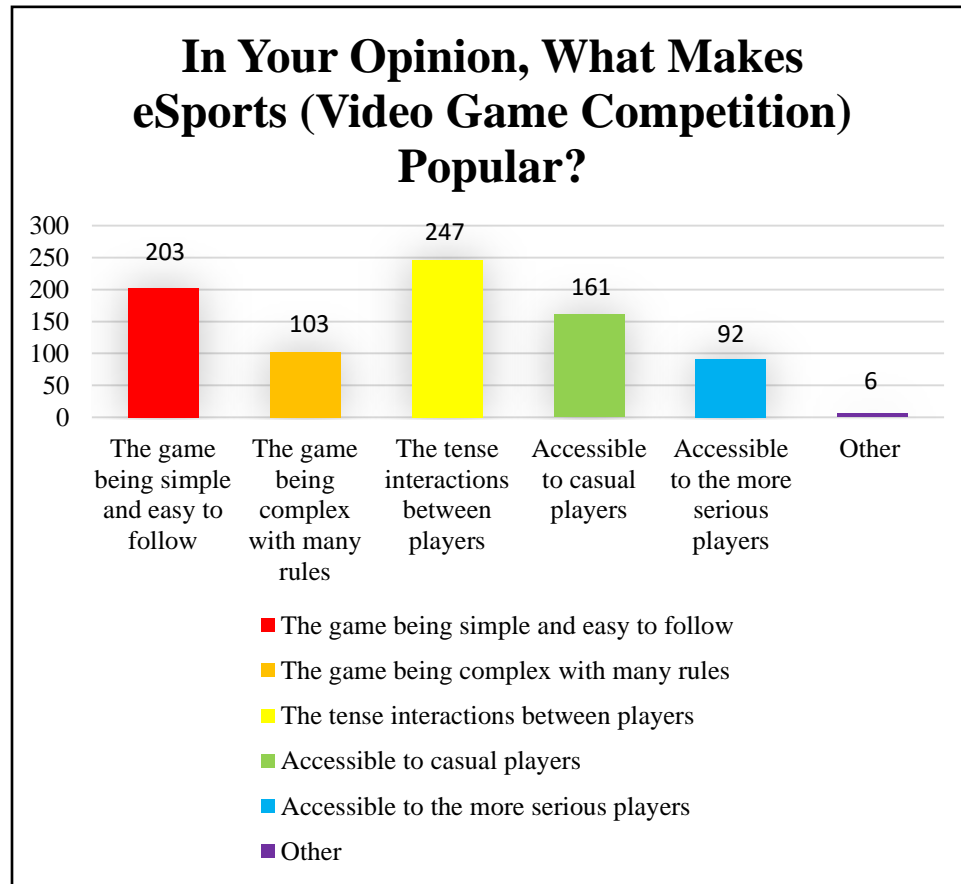
Figure 4.15. In Your Opinion, What Makes eSports (Video Game Competition) Popular? *Source*: Developed for the research.

Table 4.16 and Figure 4.16 show the respondents' opinion on whether eSports should be considered as 'Sport'. The top three reasons that the respondents thought eSports should be considered as "Sport" were because of video games require attention, focus and very fast response time (245), video games take coordination, training and are very taxing on the mind (228) and many video games require strategy and tactics (199).

Table 4.16

Based on your opinion, should eSports be considered as "Sport"?

Respondent's Opinion in eSports	Frequency
Based on your opinion, should eSports be considered as "Sport" because:	
Video games take coordination, training and are very taxing on the mind.	228
Video games require attention, focus and very fast response time.	245
Even though it is not a physical activity, an electronic game requires a lot of energy to play.	124
It is credibly competitive.	196
It takes time, effort and a set of skills to become a professional gamer; not everyone can do it.	191
Many video games require strategy and tactics.	199
Other	3

Source: Developed for the research.

Based On Your Opinion, Should eSports be considered as "Sport" Because:

- Video games take coordination, training and are very taxing on the mind.
- Video games require attention, focus and very fast response time.
- Even though it is not a physical activity, an electronic game requires a lot of energy to play.
- It is credibly competitive.
- It takes time, effort and a set of skills to become a professional gamer; not everyone can do it.
- Many video games require strategy and tactics.
- Other

Figure 4.16. Based on Your Opinion, Should eSports be considered as "Sport"?

Source: Developed for the research.

4.2 Convergent Validity

Convergent validity is used to determine the degree to which multiple items to measure the same concept are in the agreement. It is a test to reflect the degree to which the two or more items used to measure the phenomenon or construct that will produce a similar score. According to Hair, Black, Babin, Anderson, and Tatham (2010), there are three elements which are factor loadings, composite reliability (CR) and average variance extracted (AVE) that used to determine the convergent validity. The AVE must above 0.500. Besides, the CR and Cronbach alpha (CA) values must achieve at least more than 0.700 (Hair et al., 2010). The factor loadings must at least 0.700 as well. However, any item that falls within 0.400 to 0.707 will be retained if the AVE has achieved the minimum threshold value of 0.500.

Table 4.17 shows the result of AVE with the lowest of 0.597 to a maximum of 0.735. These AVE were above 0.500 and therefore is accepted. Most of the factor loadings have passed 0.707. However, the factor loadings of IMM 1 (0.629), SEC 3 (0.699) and CO 3 (0.700) are less than 0.707. These items still can be accepted because the AVE for these items had achieved the minimum threshold value of 0.500 and the factor loadings were fall within 0.400 to 0.707. Therefore, none of the questions was deleted in this research. Lastly, the CR for each construct has achieved the recommended value of 0.700. Hence, the convergent validity is deemed to be adequate in this measurement model.

Table 4.17:

Assessment of Convergent Validity

Constructs	Item	Factor Loading	Average Variance Extracted (AVE)	Composite Reliability
Motivation	AC 1	0.707	0.597	0.816
	AC 2	0.799		
	AC 3	0.762		
	AC 4	0.768		
	AC 5	0.707		
	IMM 1	0.629		
	IMM 2	0.808		
	IMM 3	0.758		
	IMM 4	0.798		
	SOC 1	0.828		
	SOC 2	0.818		
	SOC 3	0.799		
Government Support	FS 1	0.826	0.735	0.847
	FS 2	0.853		
	FS 3	0.868		
	IS 1	0.878		
	IS 2	0.867		
	IS 3	0.849		
Service Mechanisms	FAIR 1	0.752	0.615	0.827
	FAIR 2	0.805		
	FAIR 3	0.716		
	INC 1	0.746		

	INC 2	0.811		
	INC 3	0.805		
	SEC 1	0.843		
	SEC 2	0.864		
	SEC 3	0.699		
Gratification	SPA PRE 1	0.907	0.700	0.903
	SPA PRE 2	0.900		
	SPA PRE 3	0.878		
	SOC PRE 1	0.772		
	SOC PRE 2	0.772		
	SOC PRE 3	0.796		
	SOC INT 1	0.804		
	SOC INT 2	0.851		
	SOC INT 3	0.873		
	ENJ 1	0.836		
	ENJ 2	0.795		
	ENJ 3	0.842		
Social Influence	CO 1	0.835	0.645	0.845
	CO 2	0.843		
	CO 3	0.700		
	ID 1	0.806		
	ID 2	0.767		
	ID 3	0.811		
	IN 1	0.821		
	IN 2	0.811		
	IN 3	0.825		

Source: Developed for the research.

4.3 Discriminant Validity

The discriminant validity was assessed which is to ensure each latent construct is distinct from other constructs in the same measurement model (Hair, Black, Babin & Anderson, 2010). Squared root of AVE has been used to compare correlation in order to measure the discriminant validity. As long as the squared root of AVE for each latent shows the largest value or greater than the correlation values in the same row and columns, this ensured the establishment of discriminant validity.

Table 4.18 shows the squared root of AVE of each latent constructs are larger than other correlation values of the row and column. However, the squared root of AVE for motivation has a lower value than correlation values for gratification and social influence. Meanwhile, the squared root of AVE for gratification is lower than the correlation value of social influence. Thus, it can be claimed that discriminant validity is not established in this measurement model.

Table 4.18:

Assessment of Discriminant Validity

Constructs	Motivation	Government Support	Service Mechanisms	Gratification	Social Influence
Motivation	0.646				
Government Support	0.318	0.812			
Service Mechanisms	0.439	0.428	0.634		
Gratification	0.661	0.337	0.461	0.626	

Social Influence	0.656	0.391	0.457	0.642	0.689

Source: Developed for research.

4.4 Inferential Analysis

The structural model represents the relationship between constructs or latent variables that were hypothesized in the research model (Work, Science, & Chima, 2014). Figure 4.17 and Table 4.19 show the results of the structural model from the PLS output.

Figure 4.17 illustrates the five main latent variables that represent four independent variables connected to a dependant variable. Each of the main latent variables consists of several dimensions, while each of the dimensions is built up from several items.
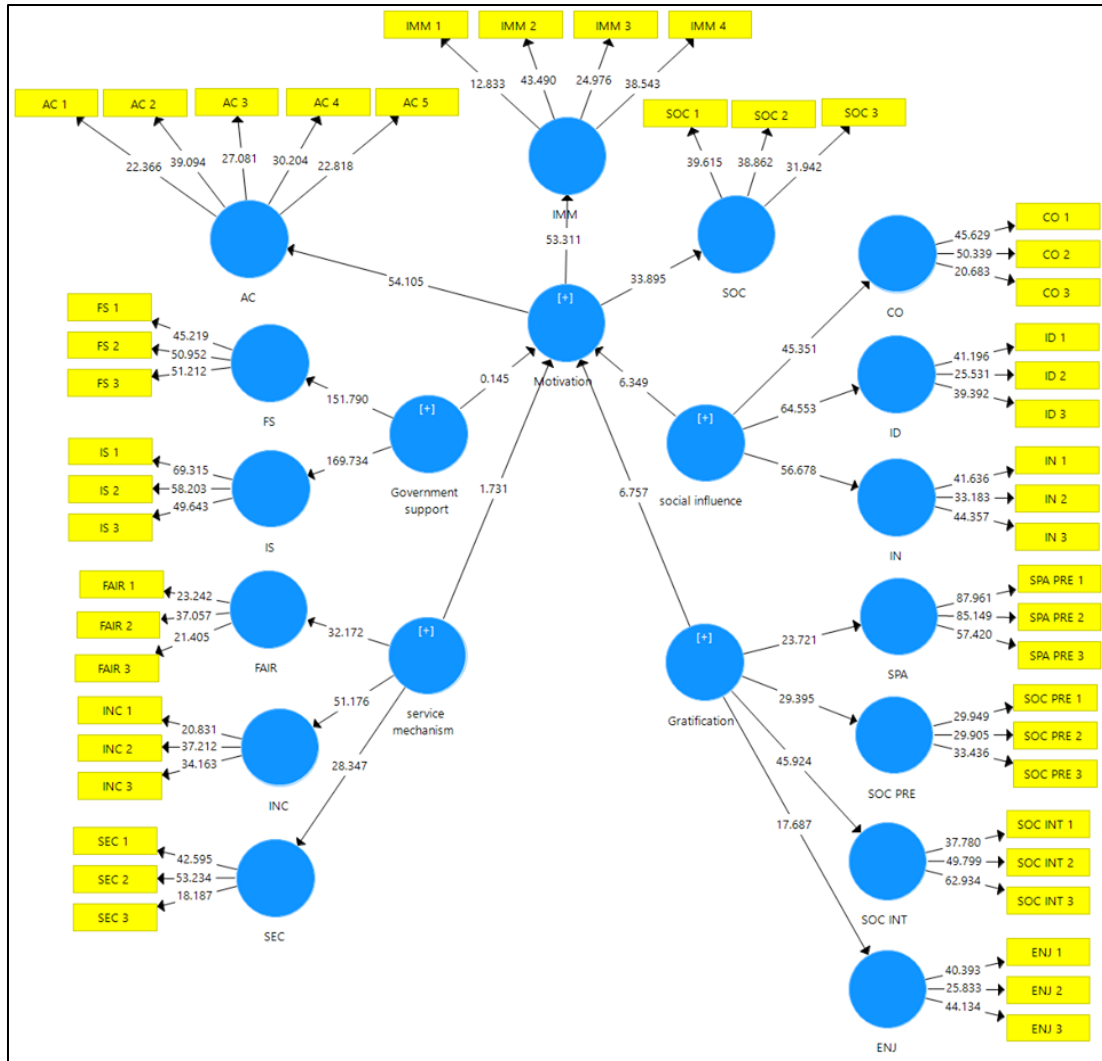
Figure 4.17. Structural Model. *Source*: Developed for the research.

According to the results show in Table 4.19, service mechanisms ($\beta = 0.092$, $p < 0.05$), gratification ($\beta = 0.378$, $p < 0.05$), and social influence ($\beta = 0.368$, $p < 0.05$), were found to be significantly related to the motivation to participate in eSports. At least 53.5% of the variance in motivation can explain by the model. Therefore, H_2, H_3, and H_4 were supported. Nevertheless, government support ($\beta = 0.007$, $p > 0.05$) was not significantly related to the motivation to participate in eSports. Therefore, H_1 was rejected.

This study also evaluates the effect sizes (f^2). The magnitude of the effect size is measured based on Cohen's (1988) guideline where 0.02 representing small, 0.15 representing medium and 0.35 representing large effects. In this research, only two relationships with medium effect sizes that are gratification and motivation to participate in eSports ($f^2 = 0.172$) and social influence and motivation to participate in eSports ($f^2 = 0.155$). However, there is only one relationship with small effect sizes that is service mechanisms and motivation to participate in eSports ($f^2 = 0.013$) and one relationship with no effect sizes which is government support and motivation to participate in eSports ($f^2 = 0.000$).

T-statistics illustrates the contribution of each independent variable to dependent variable. The gratification has the strongest variable impact on the motivation to participate in eSports as the t-statistics value is 6.757, followed by social influence and service mechanisms with t-statistics value of 6.349 and 1.731 respectively. Lastly, the t-statistics value of government support is 0.145.

Table 4.19:

Structural Model Assessment Result

H	Path	Beta	Standard error	t-statistics	Results	p-value	f^2	R^2
H_1	GS>M	0.007	0.047	0.145	Not Supported	0.443	0.000	
H_2	SM>M	0.092	0.053	1.731	Support	0.042	0.013	0.535
H_3	G>M	0.378	0.056	6.757	Support	0.000	0.172	
H_4	SI>M	0.368	0.058	6.349	Support	0.000	0.155	

Source: Developed for the research.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

Final conclusion for the study and a summary for the statistical analysis were provided in this chapter. The beginning of this chapter discussed about the findings to validate the study hypothesis and objectives. This chapter also discussed about the implication and limitation of the study. Recommendation and suggestions for future research purpose was provided in this chapter as well.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

5.1.1.1 Gaming behaviour of the research respondents.

A majority of the respondents played online game(s) 6-10 times a week and 2-5 hours in each session. Most of the respondents had more than 7 years' online game(s) playing experience and they were around 21 to 25 years old.

5.1.1.2 Demographic profile of the research respondents.

Most of the respondents were male and the highest education level was bachelor level. Besides, majority of the respondents were students, single and

Chinese. Furthermore, majority of the respondents played online game(s) at home and the common type of internet connectivity was wireless.

5.1.1.3 Respondent's opinion in eSports.

Majority of the respondents usually played PUBG. The major factor that motivates the respondents to participate in eSports was because of teambuilding skill. Most of the respondents believe that eSports (video game competition) become popular was because of the tense interactions between players. Besides, the reason that most of the respondents thought eSports should be considered as "Sport" was because video games require attention, focus and very fast reflexes in most cases.

5.2 Discussion of Major Findings

5.2.1 Relationship between government support and motivation to participate in eSports.

H_1: There is a positive relationship between government support and motivation of online gaming community to participate in eSports.

In this study, the relationship between government support and motivation of online gaming community to participate in eSports is not significant. This result is different from the past study of Aryanto and Fransiska (2012). This is because eSports in Malaysia is still in its infancy and Malaysian government has organised limited activities in promoting eSports.

5.2.2 Relationship between service mechanisms and motivation to participate in eSports.

H_2: There is a positive relationship between service mechanisms and motivation of online gaming community to participate in eSports.

Based on the analysis result, it shows that service mechanisms has a positive relationship towards the motivation of online gaming community to participate in eSports. This is because respondents believe that the game developers provide reliable fairness, incentive and security to the players such as providing compensation to the players when a vital problem occurs in eSports, offer incentives such as form some festival activities for players to continue play and protect the players' privacy. This result is consistence with the study of Liao, Cheng and Teng (2019). Hence, H_2 is supported.

5.2.3 Relationship between gratification and motivation to participate in eSports.

H_3: There is a positive relationship between gratification and motivation of online gaming community to participate in eSports.

Based on the analysis result, it indicates that there is a positive relationship between gratification and motivation of online gaming community to participate in eSports. This is because respondents tend to enjoy the competitive environment of eSports that bring pleasure to them and help them to make friends. This result is supported by the research of Ha, Yoon, and Choi (2007), gratification is a dominant and strong determinant of the motivation to participate in eSports. Hence, H_3 is supported.

5.2.4 Relationship between social influence and motivation to participate in eSports.

H_4: There is a positive relationship between social influence and motivation of online gaming community to participate in eSports.

Based on the analysis result, it shows that the relationship between social influence and motivation of online gaming community to participate in eSports is positive. This is because family members, friends and people around the players play an important role in their social life which may affect their perception toward eSports and therefore influence them to participate in eSports. This result is supported by the study of the Yang, Chiu, and Chen (2011), they proved that social influence has a significant impact on college students' attitude and behaviour of involving in eSports. Hence, H_4 is supported.

5.3 Implication of the Study

5.3.1 Theoretical Implication

Social motivational theory, self-determination theory and social influence theory are used to explain how an individual is affected by the environment and the people surrounding them and therefore lead to changing of individuals' feelings, believes, or actions. The rationale for adopting these three theories is to understand how the behaviour (motivation to participate in eSports) of online gaming community is affected by the environment (government support, service mechanisms and gratification) and the people who are important to them (social influence). Thus, this study implied theoretical contribution to support the application of behavioural studies and bring into a new perspective in online gaming community. In this study, gratification

served as the best predictor of motivation to participate in eSports followed by social influence. Players are more likely to be motivated to participate in eSports when their need of enjoyment is fulfill and influence by others. Hence, the motivation factors to participate in eSports can be altered by the level of gratification, social influence and service mechanisms as the variables have the interaction of reciprocal causation. In short, these three theories indicate that how an individual is motivated to participate in eSports is influenced by what they feel and believe.

5.3.2 Managerial Implication

5.3.2.1 Future Development of eSports

Malaysian government plays an essential role in eSports. However, it is revealed that the activities organised by Malaysian government to promote eSports has minor impacts. The results of this study highlighted gratification are more likely to influence the participation of online gaming community in eSports. This shows that Malaysian government can improve the facilities such as internet accessibility as well as high specification desktop Personal Computer (PC), dual-monitors, gaming peripherals and the highest-end streaming equipment. This is because these facilities are worth emphasizing in further development of eSports. Meanwhile, eSports developers are capable in identifying which game is the most suitable to be used in the tournaments. Thus, Malaysian government can cooperate with eSports developers to organised more eSports tournaments and offer attractive incentives.

Furthermore, Malaysian government can build more eSports Academy to train the gamers and incorporate eSports into school syllabus or co-curriculum to cultivate students' interest in eSports. With these approaches, government's

efforts are able to raise the awareness of the online gaming community and motivate them to participate in eSports.

5.3.3 Sociocultural Implications

The sociocultural impacts of eSports may become an important role on the contribution to the changes of the quality of life of local online gaming communities. The potential benefits from positive economic impacts involving the gains of extra money, increase of job opportunities, and enhancement of infrastructures (Jimura, 2011). By focusing more on online gaming communities and eSports events, the employment rate and job opportunities would be increased. These events intended to attain positive changes in the communities, such as improving the level of participation, enhance quality of life, and help in development of individual and community. Additionally, cultural sharing could be enhanced when the local online gaming communities have a higher degree of eSports' acceptance and understand the advantages of eSports.

5.4 Limitations and Future Research Directions

5.4.1 Research Design

In this study, current researchers had chosen quantitative method that provided a general view on respondent's motivation factors to participate in eSports. Thus, future researchers may consider in using mixed method by including both quantitative and qualitative methods. This method provides a systematic set of interviews and open-ended questions that assist in clarification of questions and answers. In this way, researchers are able to

obtain more trustworthy and useful information and feedback regarding the variables and reduce the bias.

5.4.2 Research Scope and Boundaries

This research is targeted on both general and professional gamers. Therefore, the future researchers are recommended to focus on specific community such as students in order to gain a better insight. Besides that, the proposed motivational factors are subjected to current issues and problems as highlighted in the problem statement. Thus, future researchers may consider focusing on other areas.

5.5 Chapter Summary

The intention of this study is to investigate the motivational factors that affect the online gaming community to participate eSports in Malaysia. Based on the problem statement, current researchers proposed a framework and developed hypotheses in order to investigate whether there is a positive relationship between government support, service mechanisms, gratification and social influence with motivation of online gaming community to participate eSports in Malaysia. Besides, current researchers used social motivational theory, self-determination theory and social influence theory in explaining the relationship between the independent and dependents variables.

In this study, the targeted population are online gaming community in Malaysia. Self-administered questionnaire was used to collect the data from the respondents through convenient sampling technique. A total of 411 sets of questionnaires were used in this study and the results were generated by using Smart PLS method.

Furthermore, this study implied the theoretical contribution to support the application of behaviour study and bring into new perspective. Besides, the result of this study also contributed to government, eSports developers and act as guideline for future researchers. Lastly, this study provided some future research directions for future study.

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Appendix 2.1 Table of Past Studies

Author(s)	Published Title	Area of Study	Finding(s)/Conclusions	Limitation(s)
Pizzo, Na, Baker, Lee, Kim, & Funk (2018)	eSports vs. Sport: A Comparison of Spectator Motives	• Prior research studied eSports compare with traditional sports, overlooking direct comparisons to understand the degree to which eSports spectators are motivated same as traditional sport spectators.	• The results stated that traditional sport and eSports spectators are likely to sport consumption motives, though spectators from each event context exhibited distinct motives predicting game attendance frequency. • Motives influencing game attendance frequency between the sport-themed	• Data collection was conducted solely in South Korea, among traditional sport and eSports spectators. • Current study predominantly focused on games related to a single sport (i.e., soccer). While a second eSports game, StarCraft II, was incorporated into the research design, eSports span a variety of different forms or genres, including sport-themed games (FIFA Online 3), RTS games (StarCraft II), multiplayer online battle Volume 27 •

- The current study measures largely on sport consumption motives to examine their influence on eSports spectatorship and game attendance frequency.

- H1: Traditional sport and eSports spectators have the same sport consumption

eSports and traditional sport were like one another than the relationship between any other context pair.

- Sport-themed eSports are more closely related to sports than to another eSports from a consumer behaviour perspective.

Number 2 • 2018 • Sport Marketing Quarterly 121narena (MOBA) games (League of Legends, Defense of the Ancients 2), first-person shooters (Counter-Strike: Global Offensive), and fighting games (Super Smash Brothers

- This study focused on a single psychological factor (i.e., spectator motivation) known to influence game attendance frequency.

- Single-item measures were used to capture spectator motives. Single-item measures

motive patterns

(i.e.,

statistically

similar mean

scores across

contexts)

- H2: Spectator

attendance

motives impact

game

attendance

frequency

similarly across

traditional

sport and

eSports

contexts

can be acceptable for accurately measuring a construct (Rossiter, 2002), but multiple items could provide increased validity. Multi-item measures could also permit advanced statistical techniques, such as structural equation modelling.

- The number of survey responses excluded from analysis due to respondent straight-lining (Herzog & Bachman, 1981).

- The possibility of selection bias, specifically self-selection bias, existed between our

				survey respondents and non-respondents (i.e., those who refused to take the survey).
Thiborg (2009)	eSports and Governing Bodies	• The research aims to describe, discuss and analyse the concept of eSports in relation to modern sport with a special focus on the role of governing bodies. In detail, the aim	• eSports was described as a modern sport but with less physical demands and as an upcoming sport or as a new sport of today's society. • It fulfils the broad definition of modern sport as a physical, competitive and institutionalised activity.	• Further analysis of the sources needs to be conducted when it comes to answering the third research question. • Many of the associations was started recent and it was first 2008 the International eSports Federation was created to organise the national association. • The question about the support of players and other organisations has not been

with the research project is to answer the following three questions:

I. How is the concept of eSports defined within the eSports milieu?

II. Who govern eSports and what are their purposes and aims?

- Kutte Jönsson presents that "sport is what the sports 'world' (athletes, sport journalists, sport spectators etc) consider as sport".

- Korea, China, Russia, Hungary and Denmark, eSport is considered as an official sport by the national "sports world".

- The purposes and aims can be divided

discussed. The support of players and other established organization is essential. Further research to answer this question must be conducted.

		III.	Does eSports, besides the name, relate to the concept of modern sport? And if so, how?		into two categories, external and internal. External refers to purposes and aims in which involve organizations and people outside the eSports milieu and the internal was directed to people and organization within the milieu.		
Southern (2017)	The rise of eSports: A new audience model and a new medium?	•	The studies looking into the audiences of both eSports and traditional sports, a	•	It is important to compare sport audiences and eSports audiences to understand if the rising eSports	•	The eSports phenomena have been on the rise for many years and does not show signs of stopping. It attracts it audience with a similar model to that of generic sports, with

comparison is made between the two, showing that they follow similar models to reach their audience.

- Traditional sports exist in the world of television, while eSports are just starting to make their way onto TV networks, currently

phenomena is a new model of capturing an audience's attention or if it is just using a similar model to that of sports.

- This gives insight into how communication and technology play a role in how social communities form around eSports and how traditional social groups have formed around physical sporting

the Internet as its broadcast medium instead of television and radio.

- In future analysis, it will be important to discover what possible effects this wide scale access of eSports will have on the younger generations, and what this means for future phenomena that might try and make use of the Internet and the sports audience model.

relying more on live streaming services such as YouTube and Twitch to broadcast to their viewers.	events and allows for a basis to make predictions regarding future phenomena that might give rise to large followings of consumers for the purpose of entertainment.
• eSports have taken the methods of attracting audiences from traditional sports and adapted it to fit livestream broadcasting.	

		Three main categories that drive sports fans to spectate: I. emotional (entertainment, eustress, self-esteem, and escape.) II. cognitive, (learning and aesthetics) III. behavioural or social (release, companionship, group affiliation, family, and economics.)		
Sun (2017)	Motivation to	• The purpose of	• Results indicated that	• The sample was not big

Play Esports: Case of League of Legends	this study was to assess the motivations of playing League of Legends and to relate them by genders, age groups and frequency groups.	achievement factors were stronger motives for men than women.	enough to present all the League of Legends players.
		• For different age groups, there was no significant difference on socialization factors.	• Statistics did not show significant differences in motivation factors between genders. There were not enough female samples to represent all the female players.
	• The study categorized 12 items into three factors: achievement, socialization and immersion.	• The immersion factors for players who spent different times on LoL were not very influential.	• There was only one player aged from 35 to 44, and one that was 45 or older, which means these samples are not enough to analysis these two age groups of players.
			• The study did not consider the

				region of the players. The survey was in English, but participants may include players from China, South Korea or other countries.
				• Different players may have some different motivations based on their cultural background and the environment they've been educated in.
Shaw (2014)	eSports Spectator Motivation	• The purpose of this study was to determine factors that motivate people to watch	• Overall the highest motivating factors were entertainment, eustress, and aesthetics on the Sports Fan	• Data collection tool was designed as two separate instruments • Many individuals did not complete the second set of

electronic sports. • The sample consisted of males and females aged 18 to 65 watching e-sport, both online and at live e-sport viewing events. • All individuals completed a 56-item instrument comprising the Sports Fan	Motivation Scale, and the highest motivating factors on the Motivation Scale for Sports Consumption were player skills, drama, and knowledge. • Significant differences were found between males and females in the areas of group affiliation, family, drama, knowledge, and player skills. • Comparing players	questions. • The survey length is a factor in limiting response rate. • Survey respondents commenting on forum threads such as Facebook was that many questions seemed repetitive.

Motivation Scale and the Motivation Scale for Sports Consumption as well as demographics and eSports behaviour questions.	to non-players, significant differences were found to exist with regard to escape, eustress, aesthetics, self-esteem, achievement, aesthetics, knowledge, and players' skills motivations.	
• Motivations were analysed based on subgroups	• Within preferred group sizes, there were significant differences in eustress, aesthetics, group affiliation,	

self-esteem,
achievement, family,
and social
motivations.

- Comparing the
preferred viewing
venues, economic,
eustress, aesthetics,
group affiliation,
family, self-esteem,
entertainment,
achievement, drama,
and player skills
were all factors of
motivation that
showed statistical
significance.

			• Regarding age, there were significant differences regarding the motivations of self-esteem, achievement, and family	
Lee, & Schoenstedt (2011)	Comparison of eSports and Traditional Sports Consumption Motives	• This research focusing on both motivational and behavioural patterns of eSports consumption to determine whether	• Results indicated that competition and skill had a statistically significant impact on the time spent on eSports games while peer pressure had marginal significance. • Related to the overall	• Due to low reliability, one control item was excluded in the data analysis. • Face/content validity of the item needs to be improved and then used in future studies. The chosen 14 factors only explained a total of 10.1% of the variance on eSports game playing. To implement the

eSports consumption stands alone as a distinct market or whether it is similar or compliments traditional sports consumption.

- This study explored 14 motivational factors affecting the time spent on eSports

findings, developing tailored messages that drives consumption behaviours of target audiences to specific eSports games will provide a better chance for marketers to fulfil their strategic goals of increased purchasing and larger market shares.

- Understanding the interest in competition and skill are critical to eSports

cross-validation test, 30% of the entire sample was used.

- While the sample size (n = 515) satisfies the minimum sample size required, the population size could be increased in further research.

- Due to the use of a convenience sample, the current findings are limited in their generalizability to all populations.

gaming.

- Using a sample of 515 college students and athletic event attendees, we further compared eSports game patterns to their non-eSports or traditional sport involvements.

gamers may influence marketers to focus on creating games and opportunities for gamers to compete against each other and give tangible rewards to the winner.

- The use of peer pressure may be another motivational factor for playing.

Appendix 3.1 Questionnaire (English Version)

UNIVERSITY TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
BACHELOR OF BUSINESS ADMINISTRATION (HONS)
FINAL YEAR PROJECT

SURVEY QUESTIONNAIRE

Dear Respondent,

We are the Bachelor of Business Administration (HONS) final year students from University Tunku Abdul Rahman (UTAR). Currently, we are conducting a study on the motivational factors that affect online gaming community to participate eSports in Malaysia.

'eSports is defined as an organised online video game competition in which people develop and train mental or physical abilities in the use of electronic system.'

This questionnaire consists of 4 sections. Section A is the filter questions of this survey, Section B is the demographics profile of the respondent, Section C is the motivational factors that affect participate eSports in Malaysia, and Section D is respondents' opinion on eSports.

We appreciate if you could complete the following questionnaire. Please read the instructions carefully before answering. The data collected will be kept confidential and solely use for academic purpose. In any written reports or publications, no one will be identified as only group data will be presented. Your co-operation to answer this survey is very important for us to complete this research.

Thank you in advance for your time and willingness to participate in this survey.

Best Regard,

CHING YING TIAN   1606497

DARREN BEK   1606686

LEE WAN RUI   1606688

LOH HOW ZHENG   1606498

TIONG ING TECK   1606739

Please be informed that accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, University Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Acknowledgement of Notice

[ ] I have been notified by you and I hereby understood, consented and agreed per UTAR notice.

[ ] I disagree, my personal data will not be processed.

Instructions for Completing the Questionnaire

1. There are **FOUR (4)** sections in this questionnaire. Kindly answer **ALL** the items in Section A, Section B, Section C and Section D.

2. You will take approximately 10-15 minutes to complete this questionnaire.

3. This questionnaire will be strictly kept CONFIDENTIAL.

Section A: Filter Questions

1   Frequency of playing online game
  - ☐ 1-5 times a week
  - ☐ 6-10 times a week
  - ☐ 11-15 times a week
  - ☐ 16-20 times a week
  - ☐ More than 20 times a week

2   Time duration in each session when playing online game
  - ☐ Less than 2 hours
  - ☐ 2-5 hours
  - ☐ 6-10 hours
  - ☐ 11-20 hours
  - ☐ More than 20 hours

3   Online game playing experience

☐ Less than 1 year   ☐ 6-7 years

☐ 1-3 years   ☐ More than 7 years

☐ 4-5 years

4   Age Group

☐ 16 -20 years old   ☐ 36-40 years old

☐ 21-25 years old   ☐ 41-45 years old

☐ 26-30 years old   ☐ 46-50 years old

☐ 31-35 years old   ☐ 51 years old and above

Section B: Demographics profile

1   Gender

☐ Male

☐ Female

2   Educational Level

☐ Primary school   ☐ Bachelor

☐ Secondary school   ☐ Master and above

☐ Pre-U or Foundation

3   Occupation

☐ Employed   ☐ Student

☐ Unemployed   ☐ Retired

4   Marital Status

☐ Single   ☐ Divorced/ widowed

☐ Married   ☐ Other (please specify):___

5   Race

☐ Malay   ☐ Indian

☐ Chinese   ☐ Other (please specify):___

6   Types of online game playing (can choose more than one answers)

☐ Action   ☐ Strategy

☐ Adventure   ☐ Classic/ Puzzle

☐ Role-playing game   ☐ War games

☐ Simulation   ☐ Other (please specify)____

☐ Sports

7   Places of playing online game (can choose more than one answers)

☐ Home   ☐ Cyber café

☐ Campus   ☐ Other (please specify):___

8   Internet connectivity (can choose more than one answers)

☐ ADSL   ☐ Leased line

☐ Dial-p   ☐ Wireless

☐ Cable modern   ☐ Other (please specify):___

☐ LAN

Section C:

Please circle only **ONE** appropriate number that **BEST** represents your agreement with the statement on the scale 1 to 5 below.

Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Part 1: Government Support

No.	Code		SD	D	N	A	SA
1	FS 1	The government provides incentives to encourage eSports activities.	1	2	3	4	5
2	IS 1	The government provides advanced technologies (e.g.	1	2	3	4	5

No.	Code		SD	D	N	A	SA
		internet accessibility) to facilitate eSports.					
3	IS 2	The government introduced eSports Academy to serve as a platform for competitive gaming.	1	2	3	4	5
4	IS 3	The government agencies are assisting the growth of eSports. (e.g. eSports Malaysia)	1	2	3	4	5
5	FS 2	The government enables finances (e.g. bank loan) with discounted interest to support eSports development.	1	2	3	4	5
6	FS 3	The government offers research funds meant for eSports development.	1	2	3	4	5

Part 2: Service Mechanisms

No.	Code		SD	D	N	A	SA
1	FAIR 1	The online game company will punish the players who use fabricated programs.	1	2	3	4	5
2	FAIR 2	If a vital problem occurs in online game, the company in charge will tackle to compensate the loss.	1	2	3	4	5
3	FAIR 3	I feel that online game is fair in allocating resource (e.g. virtual treasure/item, virtual money and trading modes).	1	2	3	4	5
4	INC 1	Whenever I play online game, I assume the rewards given meet	1	2	3	4	5

No.	Code		SD	D	N	A	SA
		the efforts I put into.					
5	INC 2	The company of the online game offers incentives for its continued play (e.g. racing, to form a party or some festival activities).	1	2	3	4	5
6	INC 3	I get rewarded for my continued participation of the online game (e.g. virtual money, equipment or reality rewards).	1	2	3	4	5
7	SEC 1	I feel the game company can offer the security on data transformation.	1	2	3	4	5
8	SEC 2	I feel the game company can protect the players' privacy.	1	2	3	4	5
9	SEC 3	I feel the internet connection for online game is of stable quality.	1	2	3	4	5

Part 3： Gratification

No.	Code		SD	D	N	A	SA
1	SOC PRE 1	When interact with other players, I am able to show what kind of player I really am.	1	2	3	4	5
2	SOC PRE 2	I trust that other players in online game will assist me if I need it.	1	2	3	4	5
3	SOC PRE 3	Whenever I see other players are confused, I offer to help.	1	2	3	4	5
4	ENJ 1	Playing online game is exciting.	1	2	3	4	5
5	ENJ 2	Playing online game give me lots of pleasure.	1	2	3	4	5

6	ENJ 3	I enjoy playing online game.	1	2	3	4	5
7	SOC INT 1	I think my online friends understand me better than any other people.	1	2	3	4	5
8	SOC INT 2	Playing online game can let me communicate to others.	1	2	3	4	5
9	SOC INT 3	Going online has made it easier for me to make friends.	1	2	3	4	5
10	SPA PRE 1	Part of my world disappears whenever I disconnected to the online game	1	2	3	4	5
11	SPA PRE 2	Online game make me felt like I was in the world where the game created.	1	2	3	4	5
12	SPA PRE 3	Online game has become part of my world.	1	2	3	4	5

Part 4: Social Influence

No.	Code		SD	D	N	A	SA
1	CO 1	It is necessary for my group of friends to participate in online games in order to be accepted among peers.	1	2	3	4	5
2	CO 2	My group of friends views online games as similar to my point of view.	1	2	3	4	5
3	CO 3	Unless my group of friends sees the benefits of participating in online games, otherwise, they would not spent extra effort in it.	1	2	3	4	5
4	ID 1	In our interactions, my group of	1	2	3	4	5

		friends feels there is a sense of ownership about the participation of online games.					
5	ID 2	My group of friends talks about the online games to other friends that have not joined.	1	2	3	4	5
6	ID 3	My group of friends is proud of their online games participation.	1	2	3	4	5
7	IN 1	Online games are important to my group of friends. (e.g. playing online game is considered as a status symbol among my friends)	1	2	3	4	5
8	IN 2	My group of friends participates in online games as such entertainment provides some underlying social benefits.	1	2	3	4	5
9	IN 3	My group of friends participating in online games primarily because of the similarity between our values on the benefits provided.	1	2	3	4	5

Part 5: Motivation

What would have motivated you to participate in eSports?

No.	Code		SD	D	N	A	SA
1	AC 1	The desire to challenge and compete with others.	1	2	3	4	5
2	AC 2	The desire to gain power, progress rapidly.	1	2	3	4	5
3	AC 3	For the prestige of being a good player.	1	2	3	4	5

4	AC 4	Finding and knowing things that most other players do not know about.	1	2	3	4	5
5	AC 5	Having interest in analysing the underlying rules and system in order to optimise champion's performance.	1	2	3	4	5
6	SOC 1	Conversing and chatting with others.	1	2	3	4	5
7	SOC 2	The desire to form long-term meaningful relationships with others.	1	2	3	4	5
8	SOC 3	Deriving satisfaction from being part of a group effort.	1	2	3	4	5
9	IMM 1	Using the online environment to avoid thinking about real life problems.	1	2	3	4	5
10	IMM 2	Having an interest in masteries of different champions.	1	2	3	4	5
11	IMM 3	The discovery of the game (e.g. history and the various phenomena) that occur within the game.	1	2	3	4	5
12	IMM 4	To create a character with background story and interacting with other players to create an improvised story.	1	2	3	4	5

Section D:

Respondent's opinion in eSports. You may select MORE THAN ONE answer.

1. Which games do you normally play?

   ☐ League of Legends   ☐ Starcraft 2

   ☐ Dota 2   ☐ Counter-Strike: Global Offensive

   ☐ Fortnite   ☐ Starcraft: Brood War

   ☐ PUBG   ☐ Rocket League

   ☐ FIFA   ☐ NBA2K

   ☐ Splatoon 2   ☐ Battlerite

   ☐ Overwatch   ☐ Heroes of the Storm

   ☐ Smite   ☐ Paladins

   ☐ Hearthstone   ☐ Valnglory

   ☐ Super Smash Bros.   ☐ Other (please specify):___

2. What other factors would motivate you to participate in eSports?

   ☐ Self-improvement

   ☐ Acquisition of knowledge (e.g. understanding on strategies used)

   ☐ Build leadership skill (e.g. being a leader)

   ☐ Build teamwork (e.g. complete a task together)

   ☐ Enhance critical thinking skill

   ☐ Enhance problem solving skill

   ☐ Increased memory capacity

   ☐ Provide job training skills

   ☐ Others (please specify): _____

3. In your opinion, what makes eSports (video game competition) popular?

   ☐ The game being simple and easy to follow

   ☐ The game being complex with many rules

   ☐ The tense interactions between players

   ☐ Accessible to casual players

☐ Accessible to the more serious players

☐ Other (please specify): _____

4. Based on your opinion, eSports should be considered as "Sport" because:

☐ Video games take coordination, training and are very taxing on the mind.

☐ Video games require attention, focus and very fast response time.

☐ Even though it is not a physical activity, an electronic game requires a lot of energy to play.

☐ It is credibly competitive.

☐ It takes time, effort and a set of skills to become a professional gamer; not everyone can do it.

☐ Many video games require strategy and tactics.

☐ Other (please specify):_____

Thank you for participating in this survey

Personal Data Protection Statement

Please be informed that in accordance with **Personal Data Protection Act 2010 (PDPA)** which came into force on 15 November 2013, **Universiti Tunku Abdul Rahman (UTAR)** is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:-

   - For assessment of any application to UTAR
   - For processing any benefits and services
   - For communication purposes
   - For advertorial and news
   - For general administration and record purposes
   - For enhancing the value of education
   - For educational and related purposes consequential to UTAR
   - For the purpose of our corporate governance
   - For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfil our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at seowan@utar.edu.my.

Appendix 3.2 Questionnaire (Malay Version)

UNIVERSITI TUNKU ABDUL RAHMAN
FAKULTI OF PERNIAGAAN DAN KEWANGAN
IJAZAH SARJANA MUDA PENTADBIRAN PERNIAGAAN (KEPUJIAN)
PROJEK PENYELIDIKAN TAHUN AKHIR

BORANG SOAL SELIDIK

Tuan / Puan,

Kami adalah pelajar Ijazah Sarjana Muda tahun akhir yang sedang menyambil subjek Pentadbiran Perniagaan (Kepujian) dari Universiti Tunku Abdul Rahman (UTAR).

Tujuan kajian ini adalah untuk memahami lebih lanjut terhadap faktor motivasi yang mempengaruhi penyertaan eSukan di Malaysia. Tujuan kajian ini adalah sebagai sebahagian yang wajib untuk melengkapkan projek penyelidikan tahun akhir kami.

'eSukan adalah satu bentuk persaingan yang dibantu oleh sistem elektronik dan selalunya, dianjurkan secara teratur, melibatkan persaingan berbilang pemain, terutamanya di antara pemain profesional.'

Sila jawab semua soalan dengan pengetahuan anda yang terbaik. Semua maklum balas dan maklumat akan disimpan secara sulit.

Borang soal selidik ini mengandungi empat (4) bahagian. Bahagian A adalah soalan penapis, Bahagian B adalah latar belakang responden, Bahagian C adalah faktor motivasi yang mempengaruhi penyertaan eSukan di Malaysia and Bahagian D adalah pendapat responden tentang eSukan. Tempoh tinjauan ini akan mengambil masa 10-15 minit.

Kami amat menghargai kerjasama anda dan masa yang diluangkan untuk menjawab borang soal selidik ini. Kami amat menghargai usaha anda yang dapat membantu kami untuk mendapat analisis yang lebih baik dan projek penyelidikan ini.

Terima kasih atas penyertaan anda.

Yang ikhlas,

CHING YING TIAN   1606497

DARREN BEK   1606686

LEE WAN RUI   1606688

LOH HOW ZHENG   1606498

TIONG ING TECK   1606739

Saya bersetuju untuk mengambil bahagian dalam kajian penyelidikan ini dengan secara sukarela. Saya memahami tujuan dan kajian ini. Saya memahami bahawa saya boleh menarik diri dari kajian ini pada bila-bila masa tanpa sebarang akibat. Saya bersetuju untuk mengambil bahagian untuk menjawab borang soal selidik ini.

☐ Ya

☐ Tidak

Bahagian A: Soalan Penapis

1. Kekerapan bermain permainan atas talian

    ☐ 1-5 kali seminggu   ☐ 16-20 kali seminggu

    ☐ 6-10 kali seminggu   ☐ Lebih dari 20 kali seminggu

    ☐ 11-15 kali seminggu

2. Tempoh masa untuk bermain permainan atas talian

    ☐ Kurang dari 2 jam   ☐ 11-20 jam

    ☐ 2-5 jam   ☐ 21 jam atau lebih

    ☐ 6-0 jam

3. Pengalaman bermain permainan atas talian

    ☐ Kurang dari satu tahun   ☐ 6 - 7 tahun

    ☐ 1 -3 tahun   ☐ Lebih dari 7 tahun

    ☐ 4 -5 tahun

4   Umur

☐   16-20 tahun   ☐   36-40 tahun

☐   21-25 tahun   ☐   41-45 tahun

☐   26-30 tahun   ☐   46-50 tahun

☐   31-35 tahun   ☐   51 tahun dan ke atas

Bahagian B: Profil Demografik

1   Jantina

☐   Lelaki

☐   Female

2   Tahap pembelajaran

☐   Sekolah rendah   ☐   Ijazah mudah

☐   Sekolah menengah   ☐   Sarjana dan ke atas

☐   Pre-U atau Fountain

3   Pekerjaan

☐   Berkerja   ☐   Pelajar

☐   Tidak berkerja   ☐   Bersara

4   Status perkahwinan

☐   Bujang   ☐   Bercerai

☐   Berkahwin   ☐   Lain-lain: _____

5   Bangsa

☐   Melayu   ☐   India

☐   Cina   ☐   Lain-lain: _____

6   Jenis permainan atas talian yang selalu dimain (jawapan boleh lebih daripada satu)

☐   Aksi   ☐   Strategi

☐   Pengembaraan   ☐   Klasik atau Teka-teki

☐ Permainan berperanan   ☐ Permainan berperang

☐ Simulasi   ☐ Lain-lain: _____

☐ Sukan

7   Tempat main permainan atas talian (jawapan boleh lebih daripada satu)

☐ Rumah   ☐ Kafe siber

☐ Kampus   ☐ Lain-lain: _____

8   Sambungan internet (jawapan boleh lebih daripada satu)

☐ ADSL   ☐ Talian dipajak

☐ Dial-p   ☐ Tanpa wayar

☐ Kabel moden   ☐ Lain-lain: _____

☐ Lan

Bahagian C:

Sila bulatkan salah satu jawapan yang paling sesuai untuk menunjukan persetujuan anda dengan kenyataan pada skala 1 hingga 5.

Sangat tidak setuju (STS)	Tidak setuju (TS)	Tidak Pasti (TP)	Setuju (S)	Sangat Setuju (SS)
1	2	3	4	5

Bahagian 1: Sokongan Kerajaan

No.	Kod		STS	TS	TP	S	SS
1	FS 1	Saya bermain permainan atas talian kerana kerajaan menyediakan insentif untuk meyokong aktiviti-aktiviti ini.	1	2	3	4	5
2	IS 1	Saya bermain permainan atas talian kerana kerajaan menyediakan teknoligi-teknologi yang canggih untuk menyokong	1	2	3	4	5

		E-sukan.					
3	IS 2	Saya bermain permainan ata talian keraan kerajaan melancarkan akademi E-sukan sebagai platform untuk permainan yang kompetitif.	1	2	3	4	5
4	IS 3	Saya bermain permainan atas talian kerana agensi-agensi kerajaan membantu pertumbuhan permainan atas talian. (Contoh: E-sukan Malaysia)	1	2	3	4	5
5	FS 2	Saya bermain permainan atas talian kerana kerajaan memudahkan pinjaman bank faedah diskaun dalam pembangunan permainan atas talian.	1	2	3	4	5
6	FS 3	Saya bermain permainan atas talian kerana kerajaan menyediakan dana penyelidikan dalam pembangunan permainan atas talian.	1	2	3	4	5

Bahagian 2: Perkhidmatan Mekanisme

No	Kod		STS	TS	TP	S	SS
1	FAIR 1	Saya berpendapat bahawa syarikat permainan atas talian akan mengambil tindakan pehadap permain yang menggunakan program menipu.	1	2	3	4	5
2	FAIR 2	Syarikat yang bertanggungjawab	1	2	3	4	5

			1	2	3	4	5
		akan menangani dan mengimbangi kehilangannya sekiranya masalah penting berlaku semasa saya bermain permainan atas talian.					
3	FAIR 3	Saya merasakan bahawa peruntukan sumber adalah adil dalam permainan atas talian. (Contoh: Harta/item maya, wang maya dan mod perdagangan.	1	2	3	4	5
4	INC 1	Saya menganggap ganjaran memenuhi usaha saya semasa bermain permainan atas talian.	1	2	3	4	5
5	INC 2	Syarikat permainan atas talian menawarkan isentif untuk bermain berterusannya (Contoh: lunba, untuk membentuk pesta atau beberapa aktiviti perayaan).	1	2	3	4	5
6	INC 3	Saya mendapat ganjaran untuk penyertaan berterusan dalam permainan atas talian (Contoh: wang maya, kelengkapan atau ganjaran reality).	1	2	3	4	5
7	SEC 1	Syarikat permainan atas talian menawarkan keselamatan pada transformasi data.	1	2	3	4	5
8	SEC 2	Saya berpendapat bahawa syarikat permainan atas talian dapat melindungi privasi para permain.	1	2	3	4	5
9	SEC 3	Saya berpendapat bahawa sambungan internet adalah	1	2	3	4	5

berkualiti dan stabil apabila bermain permainan atas talian.

Bahagian 3: Kepuasan

No.	Kod		STS	TS	TP	S	SS
1	SOC PRE 1	Saya dapat menunjukkan diri dan jenis pemain/orang saya sebenarnya dalam interaksi saya dengan pemain lain.	1	2	3	4	5
2	SOC PRE 2	Saya percaya bahawa permain-permain lain akan memberikan bantuan kepada saya semasa saya memerlukan.	1	2	3	4	5
3	SOC PRE 3	Saya menawarkan bantuan apabila permain lain dalam keadaan keliru.	1	2	3	4	5
4	ENJ 1	Bermain permainan dalam talian adalah menarik.	1	2	3	4	5
5	ENJ 2	Bermain permainan atas talian memberikan saya keseronokan.	1	2	3	4	5
6	ENJ 3	Saya menimati bermain permainan atas talian.	1	2	3	4	5
7	SOC INT 1	Saya berasa rakan-rakan yang bermain permainan atas talian lebih memahami saya daripada orang lain.	1	2	3	4	5
8	SOC INT 2	Bermain permainan atas talian memotivasi saya berkomunikasi dengan orang lain.	1	2	3	4	5
9	SOC INT 3	Melangkah secara dalam talian memudahkan saya bergau.	1	2	3	4	5
10	SPA PRE 1	Sebahagian daripada kehidupan saya menjadi kurang menarik	1	2	3	4	5

		semasa tidak bermain permainan atas talian.					
11	SPA PRE 2	Permainan atas talian membolehkan saya berasa seperti saya berada dalam dunia permainan yang dicipta.	1	2	3	4	5
12	SPA PRE 3	Permainan atas talian telah menjadi sebahagian dalam kehidupan saya.	1	2	3	4	5

Bahagian 4: Pengaruh Sosial

No.	Kod		STS	TS	TP	S	SS
1	CO 1	Penyertaan oleh kumpulan kawan saya dalam permainan atas talian adalah penting untuk diterima oleh kalangan rakan sebaya.	1	2	3	4	5
2	CO 2	Pendapat kawan saya terhadap permainan atas talian adalah sama seperti saya.	1	2	3	4	5
3	CO 3	Kawan saya tidak akan memberikan usaha yang lebih melainkan mereka megetahui tentang kelebihan terhadap permainan atas talian.	1	2	3	4	5
4	ID 1	Dalam interaksi kami, kumpulan kawan saya berasa pemilikan tentang penyertaan permainan dalam talian.	1	2	3	4	5
5	ID 2	Kumpulan rakan saya membincangkan tentang permainan atas talian kepada	1	2	3	4	5

No.	Kod		STS	TS	TP	S	SS
		rakan lain yang belum menyertai.					
6	ID 3	Kumpulan kawan saya berasa sangat bangga apabila mengambil bahagian dalam permainan atas talian.	1	2	3	4	5
7	IN 1	Permainan atas talian adalah penting bagi kumpulan rakan saya. (Contohnya, bermain permainan dalam talian dianggap sebagai symbol status antara rakan-rakan saya)	1	2	3	4	5
8	IN 2	Faedah social adalah salah satu faktor yang penting untuk kawan saya mengambil bahagian dalam permainan atas talian.	1	2	3	4	5
9	IN 3	Kumpulan kawan saya yang menyertai permainan atas talian terutamanya kerana persamaan antara nilai-nilai kami dan faedah-faedah yang disediakan.	1	2	3	4	5

Bahagian 5: Motivasi

Apakah faktor yang memotivasikan anda untuk mengambil bahagian dalam E-sukan?

No.	Kod		STS	TS	TP	S	SS
1	AC 1	Keinginan untuk mencabar dan bersaing dengan permain lain.	1	2	3	4	5
2	AC 2	Keinginan untuk medapatkan kuasa dengan kemajuan pesat.	1	2	3	4	5
3	AC 3	Untuk prestij menjadi pemain yang baik.	1	2	3	4	5
4	AC 4	Mencari dan mengetahui perkara	1	2	3	4	5

		yang tidak diketahui oleh permain lain.					
5	AC 5	Mempunyai minat dalam menganalisi peraturan dan system yang mendasari untuk mengoptimumkan prestasi juara.	1	2	3	4	5
6	SOC 1	Berkomuikasi dan berbual-bual dengan orang lain.	1	2	3	4	5
7	SOC 2	Keinginan untuk membentuk hubungan yang stabil dengan permain lain.	1	2	3	4	5
8	SOC 3	Memperolehi kepuasan dengan menjadi sebahagian daripada usaha kumpulan.	1	2	3	4	5
9	IMM 1	Pengelakkan pemikiran tentang masalah kehidupan sebenar dengan menggunakan persekitaran dalam talian.	1	2	3	4	5
10	IMM 2	Mempunyai minat untuk menguasai pelbagai watak.	1	2	3	4	5
11	IMM 3	Penerokaan permainan tersebut, sejarah dan pelbagai phenomena yang brlaku dalam permainan.	1	2	3	4	5
12	IMM 4	Mencipta persona yang mempunyai latar belakang dan berinteraksi dengan permain lain untuk mencipta cerita yang berimprovisasi.	1	2	3	4	5

Bahagian D:

Pendapat responden tentang eSukan. Anda boleh memilih LEBIH DARI SATU jawapan.

1. Permainan manakah yang anda main?

   ☐ League of Legends   ☐ Starcraft 2

   ☐ Dota 2   ☐ Counter-Strike: Global Offensive

   ☐ Fortnite   ☐ Starcraft: Brood War

   ☐ PUBG   ☐ Rocket League

   ☐ FIFA   ☐ NBA2K

   ☐ Splatoon 2   ☐ Battlerite

   ☐ Overwatch   ☐ Heroes of the Storm

   ☐ Smite   ☐ Paladins

   ☐ Hearthstone   ☐ Valnglory

   ☐ Super Smash Bros.   ☐ Lain-lain:_____

2. Apakah faktor lain yang mendorong anda untuk mengambil bahagian dalam eSukan?

   ☐ Peningkatan diri

   ☐ Pemerolehan pengetahuan (contoh: pemahaman mengenai strategi yang digunakan)

   ☐ Membina kemahiran kepimpinan (contoh: sebagai pemimpin)

   ☐ Membina kerjasama (e.g. menyelesaikan tugas bersama-sama)

   ☐ Meningkatkan kemahiran berfikiran kritikal

   ☐ Meningkatkan kemahiran menyelesaikan masalah

   ☐ Meningkatkan kapasiti ingatan

   ☐ Melatih kemahiran kerja

   ☐ Lain-lain: _____

3. Pada pendapat anda, apakah yang menyebabkan eSukan (persaingan permainan video) terkenal?

☐ Permainan yang mudah dan mudah diikuti

☐ Permainan yang kompleks dengan banyak peraturan

☐ Interaksi tegang antara pemain

☐ Permainan hanya boleh diakses oleh pemain yang lebih kasual

☐ Permainan hanya boleh diakses oleh pemain yang lebih serius

☐ Lain-lain: _____

4. Berdasarkan pendapat anda, haruskah eSukan dianggap sebagai sukan?

☐ Permainan video memerlukan koordinasi, latihan dan minda.

☐ Permainan video mermelukan perhatian, fokus dan tindak balas yang sangat cepat.

☐ Walaupun ia bukan aktiviti fizikal, permainan elektronik memerlukan banyak tenaga untuk dimainkan.

☐ Ia adalah kompetitif.

☐ Ia memerlukan masa, usaha dan satu set kemahiran untuk menjadi pemain professional; bukan semua orang dapat melakukannya.

☐ Banyak permainan video memerlukan strategi dan taktik.

☐ Lain-lain:_____

Terima kasih atas penyertaan dalam soal selidik ini

Pernyataan Perlindungan Data Peribadi

Anda dimaklumkan bahawa selaras dengan Akta Perlindungan Data Peribadi 2010 ('PDPA') yang berkuatkuasa pada 15 November 2013, Universiti Tunku Abdul Rahman ('UTAR') adalah dengan ini terikat untuk membuat notis dan memerlukan persetujuan perhubungan dengan pergumpulan, rakaman, penyimpanan, penggunaan dan penyimpanan maklumat peribadi.

Notis:

1. Maklumat peribadi anda boleh digunakan adalah termasuk tetapi tidak terhad kepada:

   - Bagi penilaian sebarang permohonan untuk UTAR

   - Bagi memproses sebarang faedah dan perkhidmatan

   - Bagi tujuan komunikasi

   - Bagi iklan dan berita

   - Bagi tujuan pentadbiran am dan tujuan rekod

   - Bagi meningkatkan nilai pendidikan

   - Bagi tujuan pendidikan dan berkaitan dengan UTAR

   - Bagi tujuan tadbir urus korporat kami

   - Sebagai pertimbangan sebagai penjamin untuk kakitangan / pelajar yang memohon / biasiswa beliau / pinjaman pengajian

2. Maklumat peribadi anda mungkin akan dipindahkan dan / atau didedahkan kepada pihak ketiga dan / atau rakan kerjasama UTAR termasuk tetapi tidak terhad kepada ejen penyumberan luar masing-masing dan dilantik untuk tujuan memenuhi tanggungjawab kami kepada anda berkenaan dengan tujuan-tujuan dan semua maksud lain yang berkaitan dengan tujuan-tujuan dan juga dalam penyediaan perkhidmatan bersepadu, penyelenggaraan dan penyimpanan rekod. Maklumat anda mungkin akan dikongsi apabila dikehendaki oleh undang-undang dan apabila pendedahan adalah diperlukan untuk mematuhi undang-undang.

3. Sebarang maklumat peribadi yang disimpan oleh UTAR akan dimusnahkan dan / atau dihapuskan mengikuti dasar pengekalan kami berkenaan dengan kita sekiranya maklumat tersebut tidak lagi diperlukan.

4. UTAR komited untuk memastikan kerahsiaan, perlindungan, keselamatan dan ketepatan maklumat peribadi anda yang ada pada kami dan ia telah menjadi dasar yang ketat dijalankan untuk memastikan bahawa maklumat peribadi anda adalah tepat, lengkap, tidak mengelirukan dan terkini. UTAR juga akan memastikan bahawa data peribadi anda tidak boleh digunakan untuk tujuan politik dan komersial.

Persetujuan:

1. Dengan penghantaran borang ini, anda dengan ini memberi kuasa dan membenarkan kami memproses (termasuk pendedahan) maklumat peribadi anda dan sebarang kemas kini maklumat anda, untuk tujuan-tujuan dan / atau tujuan lain yang berkaitan.

2. Jika anda tidak bersetuju atau kemudiannya menarik balik persetujuan anda terhadap pemprosesan dan pendedahan maklumat peribadi anda, UTAR tidak akan dapat memenuhi tanggungjawab kami atau menghubungi anda atau membantu anda berkenaan dengan tujuan dan / atau maksud lain yang berhubungan untuk tujuan tersebut.

3. Anda boleh mengakses dan mengemas kini maklumat peribadi anda dengan emel kepada kami pada seowan@utar.edu.my.

Appendix 3.3 Questionnaire (Chinese Version)

拉曼大学
商业与金融系

工商管理学士（荣誉）

毕业论文

问卷调查

亲爱的先生/女士/小姐，

我们是来自拉曼大学工商管理系的研究员。为了能够更了解参与马来西亚电子竞技的动机因素，因此我们设立了这份调查问卷。此外，这问卷也是我们的毕业研究。

'电子竞技是指使用电子设备作为运动器械进行的、但是操作上强调人与人之间的智力与反应所组织的电子游戏比赛。'

请给予我们您的用心及配合，以便我们能获取最准确的研究结果。您的所有回答将会保密。这份问卷调查一共拥有四（4）个项目，需要大约 10-15 分钟来完成。A 项目是问卷过滤问题，B 项目是受访者的人口统计资料，C 项目是影响参与马来西亚电子竞技的动机因素而 D 项目是受访者对电子竞技的看法。

此致，

秦银恬	1606497
麦凯伦	1606686
李宛叡	1606688
罗浩钲	1606498
张永德	1606739

我同意参与这份研究调查。我也明白这份研究目的并乐意参与此研究。此外，我也了解我能在毫无任何损失的情况下推出此研究。

我同意参与这份问卷调查。

- □ 是
- □ 否

项目 A：筛选问题

1 玩在线游戏的次数
- □ 一星期 1-5 次
- □ 一星期 6-10 次
- □ 一星期 11-15 次
- □ 一星期 16-20 次
- □ 一星期超过 20 次

2 每次在线游戏的持续的时间
- □ 少过 2 小时
- □ 2-5 小时
- □ 6-10 小时
- □ 11-20 小时
- □ 超过 21 小时

3 在线游戏经验
- □ 少过 1 年
- □ 1 至 3 年
- □ 4 至 5 年
- □ 6 至 7 年
- □ 多过 7 年

4 年龄
- □ 16-20 岁
- □ 21-25 岁
- □ 26-30 岁
- □ 31-35 岁
- □ 36-40 岁
- □ 41-45 岁
- □ 46-50 岁
- □ 51 岁以上

项目 B：基本信息

1 性别
- □ 男性
- □ 女性

2　教育程度
  □　小学   □　大学生
  □　中学   □　硕士或以上
  □　大学预料

3　职业
  □　就业   □　学生
  □　失业   □　退休人士

4　婚姻状况
  □　单身   □　离婚或寡妇
  □　结婚   □　其他（请列下）：_____

5　种族
  □　巫裔   □　印裔
  □　华裔   □　其他（请列下）：_____

6　玩游戏的类型 (可选择多过一个答案)
  □　动作   □　策略
  □　冒险   □　经典或谜题
  □　角色扮演   □　战争游戏
  □　模拟   □　其他（请列下）：_____
  □　运动

7　玩游戏的地点 (可选择多过一个答案)
  □　住家   □　网吧
  □　学院   □　其他（请列下）：_____

8　互联网连接 (可选择多过一个答案)
  □　ADSL   □　租用线
  □　Dial-p   □　无线
  □　现代电缆   □　其他（请列下）：_____

□　局域网

项目 **C**：

请圈出以下 **1** 至 **5** 等级唯一最适合代表您的观点等级。

非常不同意（**SD**）	不同意（**D**）	中立（**N**）	同意（**A**）	非常同意（**SA**)
1	2	3	4	5

第 1 部分：政府协助

号码	编号		SD	D	N	A	SA
1	FS1	我玩在线游戏因为政府提供奖励来支持这些活动。	1	2	3	4	5
2	IS 1	我玩在线游戏因为政府提供先进的科技来支持电子竞技（例如：网络通行便利）	1	2	3	4	5
3	IS 2	我玩在线游戏因为政府推出电子竞技学院作为竞争性游戏的平台。	1	2	3	4	5
4	IS 3	我玩在线游戏因为政府机构正在协助电子竞技的发展。（例如：eSports Malaysia）	1	2	3	4	5
5	FS 2	我玩在线游戏因为政府在电子竞技发展方面提供贴现利息银行贷款。	1	2	3	4	5
6	FS 3	我玩在线游戏因为政府提供电子竞技发展的研究基金。	1	2	3	4	5

第 2 部分：服务机制

号码	编号		SD	D	N	A	SA
1	FAIR 1	我认为在线游戏公司将会处罚使用作弊程序的玩家。	1	2	3	4	5
2	FAIR 2	如果我玩在线游戏时出现重大问题，有关公司将解决它并弥补损失。	1	2	3	4	5
3	FAIR 3	我觉得资源分配在玩络游戏中是公平的。（例如：虚拟财宝或物品，虚拟货币和交易模拟）	1	2	3	4	5
4	INC 1	玩在线游戏时，我认为奖励符合我所投入的努力。	1	2	3	4	5
5	INC 2	为了让玩家继续玩游戏，在线游戏公司提供奖励给持续玩家。（例如：比赛，组建聚会或一些节目活动）	1	2	3	4	5
6	INC 3	我因持续参与在线游戏而获得奖励。（例如：虚拟货币，设备或现实奖励）	1	2	3	4	5
7	SEC 1	我觉得游戏公司可提供数据转换的安全保障.	1	2	3	4	5
8	SEC 2	我觉得游戏公司可以保护玩家的隐私。	1	2	3	4	5
9	SEC 3	玩在线游戏时，我觉得互联网连接的质量稳定。	1	2	3	4	5

第 3 部分：满足感

号码	编号		SD	D	N	A	SA
1	SOC PRE 1	我在与其他玩家互动时，我能够展示出我自己或我是一个怎样的玩家。	1	2	3	4	5
2	SOC PRE 2	当我需要帮助时，我相信网络游戏中的其他玩家会给与帮助。	1	2	3	4	5
3	SOC PRE 3	当我看到其他玩家感到困惑时，我会给予帮助。	1	2	3	4	5
4	ENJ 1	玩网络游戏让我感到兴奋。	1	2	3	4	5
5	ENJ 2	玩在线游戏给与我很多乐趣。	1	2	3	4	5
6	ENJ 3	我享受玩在线游戏。	1	2	3	4	5
7	SOC INT 1	我觉得我的在线朋友比其他人更了解我。	1	2	3	4	5
8	SOC INT 2	玩在线游戏让我和其他人沟通。	1	2	3	4	5
9	SOC INT 3	上网让我更容易交到朋友。	1	2	3	4	5
10	SPA PRE 1	当我断开在线游戏时，我的生活没乐趣了。	1	2	3	4	5
11	SPA PRE 2	在线游戏让我觉得我沉进在游戏的世界里。	1	2	3	4	5
12	SPA PRE 3	在线游戏成为了我生活的一部分。	1	2	3	4	5

第 4 部分：社会影响

号码	编号		SD	D	N	A	SA
1	CO 1	我的朋友必须参加网络游戏以便被同龄人士接受。	1	2	3	4	5
2	CO 2	我的朋友对网络游戏的看法与我的相似。	1	2	3	4	5
3	CO 3	我的朋友们不会花费更多的经历除非他们发觉了在线游戏的好处。	1	2	3	4	5
4	ID 1	在互动时，我的朋友对网络游戏的参与感到一种归属感。	1	2	3	4	5
5	ID 2	我的朋友向其他未加入的朋友讨论网络游戏。	1	2	3	4	5
6	ID 3	我的朋友为参加网络游戏感到非常自豪。	1	2	3	4	5
7	IN 1	网络游戏对我的朋友非常重要。	1	2	3	4	5
8	IN 2	我的朋友参加网络游戏是因为这种娱乐提供了一些潜在的社会效益。	1	2	3	4	5
9	IN 3	我的朋友参与网络游戏主要原因是我们的价值观和提供的好处相似。	1	2	3	4	5

第 4 部分：社会影响

第 5 部分：动机

什么动机使您参与电子竞技？

号码	编号		SD	D	N	A	SA
1	AC 1	挑战和与他人竞争的追求。	1	2	3	4	5
2	AC 2	权利与迅速进步的追求。	1	2	3	4	5
3	AC 3	为了成为一名优秀玩家的声望。	1	2	3	4	5
4	AC 4	找到并了解大多数玩家不了解的事情。	1	2	3	4	5
5	AC 5	有分析基本规则和系统的兴趣，以优化冠军的表现。	1	2	3	4	5
6	SOC 1	与他人交谈和聊天。	1	2	3	4	5
7	SOC 2	渴望与他人建立长期有意义的关系。	1	2	3	4	5
8	SOC 3	通过成为团队努力的一部分来获得满足感。	1	2	3	4	5
9	IMM 1	使用在线环境以避免现实生活中的问题。	1	2	3	4	5
10	IMM 2	对掌握每个英雄感兴趣。	1	2	3	4	5
11	IMM 3	发觉游戏，历史以及游戏中发生的各种现象。	1	2	3	4	5
12	IMM 4	创建具有背景故事的角色并与其它玩家互动已创建即兴故事。	1	2	3	4	5

项目 D：

受访者对竞技比赛的看法。您可选择多过一个答案。

1. 您通常玩哪一种游戏？

   ☐ League of Legends

   ☐ Dota 2

   ☐ Fortnite

   ☐ PUBG

   ☐ FIFA

   ☐ Splatoon 2

   ☐ Overwatch

   ☐ Smite

   ☐ Hearthstone

   ☐ Super Smash Bros.

   ☐ Starcraft 2

   ☐ Counter-Strike: Global Offensive

   ☐ Starcraft: Brood War

   ☐ Rocket League

   ☐ NBA2K

   ☐ Battlerite

   ☐ Heroes of the Storm

   ☐ Paladins

   ☐ Valnglory

   ☐ 其他（请列下）:＿＿＿＿

2. 什么因素推动您参与电子竞技?

   ☐ 自我提升

   ☐ 获取知识 （例如：对策略应用的理解）

   ☐ 建立领导能力 （例如：成为一个领导人）

   ☐ 建立团队精神 （例如：一起完成任务）

   ☐ 提高判断性思维能力

   ☐ 提高解决问题能力

   ☐ 提高记忆力

   ☐ 培养工作能力

   ☐ 其他（请列下）: ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

3. 根据您的意见，是什么让电子竞技如此受欢迎?

   ☐ 游戏更简单易懂

   ☐ 游戏复杂和很多规则

   ☐ 玩家之间的紧张互动

☐ 游戏只适合更休闲的玩家

☐ 游戏只适合更严肃的玩家

☐ 其他（请列下）：_____

4. 根据您的意见，电子竞技应该被视为'运动'吗？

☐ 视频游戏需要协调，培训，并且在思想上非常沉重。

☐ 在大多数情况下，视频游戏需要注意力，专注力和非常快速的反应。

☐ 即使它不是一项体育活动，电子游戏也需要很多精力。

☐ 它具有可信的竞争力。

☐ 成为一名专业游戏玩家需要时间，精力和一系列技能；不是每个人都能做到的。

☐ 许多视频游戏需要策略和权谋。

☐ 其他（请列下）：_____

感谢您参与本次调查

个人数据保护声明

根据 2013 年 11 月 15 日所生效的'2010 年个人数据保护法'（'PDPA'），拉曼大学特此发出通知，并要求您的同意去收集，记录，存储，使用和保留您的个人信息。

<u>注意</u>：

1. 您的个人资料的使用目的包括，但不限于：
   - 用于拉曼大学的任何申请
   - 用于获取任何福利和服务
   - 用于通信目的
   - 用于广告和新闻
   - 用于一般管理和记录目的
   - 用于提高教育价值
   - 用于与拉曼大学教育相关的任何事物
   - 用于公司治理的目的
   - 用于作为拉曼大学员工或者学生申请奖学金或者学生贷款的担保人

2. 您的个人数据可能会被转让/或者披露给第三方或与拉曼大学联合伙伴，但仅限于研究目的。当法律要求必须披露您的数据时，为了遵从法律，您的个人数据可能会被共享及公开。

3. 如果您的个人数据不再被需要，您的个人信息将会被销毁或删除。

4. 在此，拉曼大学会确保您所提供给我们的个人信息的机密性，保护性，安全性和准确性，以确保您的个人信息准确及完整。此外，拉曼大学将担保您的个人数据不会被用于政治和商业目的。

同意：

1. 通过提交此表格，您在此授权并同意我们处理（包括披露）您的个人数据和您的信息，用于我们的研究及与研究相关的事项。
2. 如果您不同意或随后想撤销您所提供的个人数据，拉曼大学极有可能不能为您提供您所要求的服务、完成那用途以及与您沟通。
3. 若您想更新您的个人数据，您可电邮致 seowan@utar.edu.my。