

## KINESIOLOGY & COACHING

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# Scrutinizing the Behaviour and Commitment of a Mixed Martial Art Fighting Online Gamer

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**Key words:** fighting genre, video gaming, esports, enjoyment, personal investment, social support, commitment

### Abstract

**Background.** The population of playing electronic sports has increased recently, and among the popular ones is the Mixed Martial Art (MMA) fighting games and are amongst those fighting games played at amateur and a professional level of sport tournament. **Problem and aims.** The study examines the behaviour and commitment of players within the underpinning of the Sport Commitment Model. It is a relatively new sensation of esports fighting gaming behaviour by focusing on gamer enjoyment, personal investment, and social support and commitment.

**Methods.** A cross-sectional set of questionnaire design was employed with a sample comprised of N = 150 gamers.

**Results.** The result of the correlation showed that the three gamers behaviour of enjoyment, personal investment, social support have a significant effect on commitment. The result of this study also addressed the awareness to the general public regarding the players of fighting games genre's behaviours.

**Conclusion.** The esports expert and the marketer can confirm and optimize the behaviour and direction of esports according to the driving force of the gamer. Future research can duplicate this study by comparing the behavioural between fighting genre gamers with another video gaming genre.

### Introduction

There are many views or opinions regarding video gaming as esports or games because the word use, or known as esports comes within the area sports discipline. Understanding esports is complex because of the relative novelty of the industry as well as the convergence of culture, technology, sport, and business. Unlike traditional sports such as hockey, baseball, and soccer, esports is an interconnection of multiple platforms. Esports, which is also synonymous with gaming, is computing, gaming, media, and a sports event all wrapped up into one. The fighting games genre which also includes Mixed Martial Arts (MMA) fighting or battle games were part of the initial video games, and many of the earliest controver-

sies around video gaming concerned the portrayal of violence in popular titles such as Street Fighter (Capcom, 1987), Mortal Kombat (Midway Games, 1992), Tekken (Namco, 1994), and Soul Calibur (Namco, 1998). A particularly controversial game, Killer Instinct (Midway Games, 1994), provided further material for critics of violence in premier video games. In reality, the esports industry has amassed huge audiences, incredible cash prizes, and sponsorships that enable elite players to transform into professional careers. The research firm Newzoo has projected that esports will have generated US\$1.79 billion per year by 2022.

Research in the genre of online fighting gaming tends to emphasise its negative impression on emotional well-being, with studies portentous that gamers are fur-

ther vulnerable to negative psychological and physical outcomes [Goh, Jones, Copello 2019]. Less devotion has been specified to the positive influence of online fighting gaming on motivation wellbeing, such as enjoyment, personal investment, social support among commitment that improve gamer wellbeing [Rubel 2018]. It is imperious to additionally evaluate the relationship between online fitting gaming and psychological wellbeing of enjoyment, personal investment and social support as there may be important factors that can influence the direction and strength of commitment. Making the investment of time and effort requires an important commitment. Video games can make players or gamers addicted to playing more without a limit of time, believed to be more fun, one may not spend the time learning how to play [Rubel 2018]. Thus, defining the term of esports (also known as electronic sports, e-sports, or eSports) is important in order to clarify whether it is a game or a sport. Thus, esports can be defined as a form of sport competition using video games. Esports frequently takes the form of organized, multiplayer video game competitions, mainly between professional players, individually or as teams [Hamari, Sjoblom 2016].

#### *Esport Commitment*

According to Scanlan *et al.* [1993] introduced the esports commitment model to help explain the underlying psychological factors that cause sports participants to become committed to their sport. Since the introduction of the esports commitment model, many studies have validated and verified the model as a relevant model. The esports commitment model has been a consistent determinant of establishing the factors that relate to the commitment of gamers to their sports games. However, individual factors have been inconsistent across esports for both youth and adult participants. Research related to some factors of the esports commitment model related to youth could not be clarified, requiring further study [Rubel 2018]. Correlational analysis showed enjoyment, personal investment, social support remained significantly related to commitment. The esports commitment was designed to apply to adults and youth for both casual and elite recreationalists in games [Carpenter 1993]. It is believed that the commitment and the factors of the sport commitment model would be different based on the age and experience level of the participants [Weiss 2007]. Additionally, Weiss [2007] shows that over time the factors that contribute to commitment can change. If the factors of commitment can change causing changes in commitment over time for youth, the factors for adults would probably vary as well. Similar to Scanlan [1993] and his investigation of the esports commitment model involving youth, there was a weak relationship between social constraints and commitment. On the other hand, Wilson [2004] whole the sport commitment model using physical equality displaying and

health club members in the U.S. They used 205 participants that were attained immediately after the exercise programs at their health club. Commitment to this study was split between two groups: want to and have to and finally enjoyed the exercise programs.

#### *Enjoyment*

Enjoyment was the leading predictor of commitment for all groups. Other factors that emerged as predictors of commitment based on experience level for the less experienced group were personal investments, social constraints, and social support. For the more experienced groups, personal investments are a leading predictor [Carpenter 1993]. Enjoyment had the strongest relationship with commitment for all age groups. Social support was the other significant factor for commitment in the youngest age group, whereas personal investments were the other key factor for commitment in the middle and older age groups [Rubel 2018].

According to Carpenter [1993] the measurement model consisted of the factor's enjoyment, personal investment, involvement opportunities, and social support, leaving out involvement alternatives. The issues of involvement substitutes were similar to the work of Scanlan. Enjoyment leads to innovative levels of energy, performance, and satisfaction. Enjoyment has been one of the more impactful aspects of commitment. If contributors to any hobby or sport dedicate resources such as time, effort, and money into their hobby or sport, it would be safe to assume they do so because they enjoy the activity by personal investment in the sport itself [Rubel 2018].

#### *Personal investment*

The initial findings of the sport commitment are typical impassive of the commercial section leaving time and effort as the indicators for personal investment [Scanlan 1993]. The subjects of the study were young and it was believed that the parents of the children were paying the fees and costs to play for joysticks, CD games, and computers. The children did not have a financial stake in esports, so they would not be able to answer those questions appropriately [Rubel 2018]. Personal investment in the form of period and struggle has been a significant issue for commitment. Personal investment in the usage of money has been unpredictable [Rubel 2018]. Nevertheless, the social support from the surroundings as one of the important predictable towards sport commitment [Casper 2007].

#### *Social support*

Social support was not considered a factor for the initial esports commitment model but has reliably been found to be a significant factor of commitment since its attachment [Casper 2007]. The findings vary slightly in their reasoning Casper [2007] found a weak relationship

and theorized that it could be due to higher levels of the other factors and that people do not want to admit that social approval is important to them. According to Wang [2016] found that as athletes accomplished, a higher level of knowledge social support became more imperative than enjoyment. Therefore, Santi [2014] found a significant connection between social support and commitment. The researcher stated that it is possible that social support is such that contributors find with goals, difficulties, and lifestyles of their public group. Research has shown that social support from parents' affects young Sanchez-Miguel [2013] wanted to control how parent support or a lack of support affected the enjoyment and socialization of children in sports. Indeed, the research found that positive parental social support increased sport enjoyment and motivation to play. Similar to the research by Dunn [2016], a lack of social support in the form of pressure to perform, also decreased enjoyment and motivation.

Furthermore, according to Ullrich-French [2009] wanted to determine if social support aspects were more important than extra motivational factors linked to participation, such as enjoyment and perceived capability. These social support structures were indeed more important than enjoyment and perceived competence in the sport. The evidence suggests the importance of social support to commitment.

#### *Sport Commitment Model (SCM)*

Sport Commitment Model [Scanlan *et al.* 1993] aids as a theoretical background for this study as it is to comprehend the distinctions of continued in sport participation and psychographic evidence for e-marketing retaining and attracting of gamers. Sport commitment is well-defined by way of the "psychological state representing the desire and resolves to continue sport participation" [Scanlan *et al.* 1993]. SCM mainly emphasizes precisely commitment in addition to the meaning that underlies the commitment of gamers behaviour such as enjoyment, personal investment and social support [Ling, Teo, Chin 2019]. Drawing on the line of research noted above, this study aims to use Sport Commitment model as the underpinning theory. Thus, the purpose of the study as follow: to extend earlier work on online fighting of game participation; and outcomes and address the gaps. Hence, this study is objective is to evaluate the relationship of enjoyment, personal investment, social support and gamer commitment. Three core research questions evolved from these purposes:

Q1 – What is the relationship between gamers' enjoyment, and commitment?

Q2 – What is the relationship between gamers' personal investment, and commitment?

Q3 – What is the relationship between gamers' social support, and commitment?

## Methods

### *Research Design*

This study adopted the cross-sectional study design whereby gamers of the MMA games were recruited from a public university that conducted the MMA games competition during a sports entrepreneur week. The duration of the online games was 3 days with a different team. Gamers need to register two days before the UFC 3 competition and the population N= 150 games. This study used the census for a small population. Thus, the entire population was used as the sample size. The advantage of using census is attractive for small populations, eliminates sampling error and achieve a desirable level of precision [Cochran 1963].

Five volunteer numerators help in collecting the data during the sport entrepreneur week. Furthermore. This study adopted the quantitative design with cross sectional method. The self-administrated questionnaire was distributed by examines the relationship of enjoyment, personal investment, social support among commitment toward esports players.

SPSS Statistics version 23.0 was used to accomplish all statistical analyses in this study. Analyses of the relationships between were completed with simple correlation with significance at the 0.01 level (2-tailed) in order to address all the research questions of this study. Thus, correlation is also stated as the correlation coefficient (or "r"). It arrays from -1.0 to +1.0. The closer r is to +1 or -1, the significant closely the two variables. On the other side f r is close to 0, it means there is no relationship between the variables.

## Results

The demographic result revealed all the data of N= 150 respondents who were defined as Mixed Martial Art fighter gamers, a majority was male (60%), aged between 21 to 23 (63%), and diploma student 79.3% (79.3). Most of them had played the online gaming more than five times a week with the percentage of 67%. Thus, the following section reveals the descriptive result of variables consisting of enjoyment, personal investment, social support and gamer commitment.

### *Enjoyment*

**Table 1.** Descriptive Statistic on the variable between Enjoyment

Items	Mean	Std. Deviation
Playing video games is fun	2.63	1.463
I like playing this video game.	2.78	1.380
I love to play this video game.	2.78	1.380
Playing this sport makes me happy.	2.79	1.297
Playing this sport is very pleasurable.	2.91	1.281

Based on the descriptive statistic of enjoyment, this result concludes that the the highest item on enjoyment of respondents among esports players is “Playing this sport is very pleasurable” with mean 2.91. The lowest items are “Playing video games is fun” with mean 2.63. The conclusion is more gamers participating in esports because playing this sport is very pleasurable.

*Personal Investment*

**Table 2.** Descriptive Statistic on the variable between Personal Investment

Items	Mean	Std. Deviation
I have spent a lot of time in this video game.	3.14	1.147
In this video game, I have put in a lot of training.	3.15	1.328
I have put a great deal of mental effort into this video game.	3.18	1.285
It is difficult to stop playing because of the training I have put into this sport.	3.24	1.273
I have put a great deal of physical effort into this sport.	3.26	1.261
The time I have spent in this video game makes it difficult to stop playing.	3.35	1.361
The physical effort I have put into this video game make it difficult to stop playing.	3.39	1.295
The mental effort I have put into this video game make it difficult to stop playing.	3.43	1.206
It is difficult to stop playing because of the personal discipline, I have maintained in this esports.	3.46	1.304

This result also concluded that the highest item on personal investment of respondents among the players is item “It is difficult to stop playing because of the personal discipline, I have maintained in this esports” with mean 3.46. The lowest items are “I have spent a lot of time in this video games.” with mean 3.14 and standard deviation 1.304.

*Social Support*

**Table 3.** Descriptive Statistic on the variable between Social Support.

Items	Mean	Std. Deviation
In this esports, people provide useful instruction to improve my performance.	2.96	1.365
People who are important to me teach me the strategies of this esports.	3.01	1.361
People who are important to me teach me about the mental side of this esports.	3.01	1.361

People give me trustworthy advice about this esports.	3.09	1.295
People who are important to me are there for me after I perform poorly in this esports.	3.11	1.367
When things get tough in this esports, people who are important to me provide comfort?	3.12	1.375
People who are important to me attend the majority of my competitions in this esports.	3.13	1.448
When I compete in this sport, people who are important to me cheer me on.	3.15	1.304
I have a mentor who provides guidance in this esports.	3.24	1.441

This result revealed that the highest social support of the respondents among esports players of UiTM Shah Alam is item “I have a mentor who provides guidance in this esports.” with mean 3.15. The lowest item is “In this esports, people provide useful instruction to improve my performance” with mean 2.96 and standard deviation 1.365.

*Commitment*

**Table 4.** Descriptive Statistic on the variable between commitment.

Items	Mean	Std. Deviation
I am willing to overcome any obstacle to keep playing this esports.	3.01	1.311
Although I think about quitting this esports, I feel I must keep playing.	3.04	1.247
I will continue to play this esports for as long as I can.	3.11	1.291
I am very attached to this esports.	3.15	1.268
I am dedicated to keep playing this esports games.	3.17	1.320
I am willing to do almost anything to keep playing this esports.	3.19	1.245
I feel trapped in this esports.	3.25	1.301
Staying in this esports games is more of a necessity than a desire.	3.38	1.191
I feel I have to keep playing this esports, even though I don't want to.	3.42	1.271
I feel I am forced to keep playing this esports.	3.49	1.394

This result showed that the highest item on the commitment of the respondents among the esports players of UiTM Shah Alam is items “I feel I am forced to keep playing this esports.” with mean 3.49. The lowest items is “I am willing to overcome any obstacle to keep playing this esports.” with mean 3.01 and standard deviation 1.311.

*Relationship between enjoyment and commitment of esports players*

The first research question of this study was to assess the extent of enjoyment and commitment. Correlation anal-

yses of the independent variable and dependent variable of enjoyment and commitment variable.

**Table 5.** Correlation between enjoyment and commitment.

		Enjoyment	Commitment
Enjoyment	Pearson Correlation	1	.460**
	Sig. (2-tailed)		.000
	N	150	150
	<hr/>		
Commitment	Pearson Correlation	.460**	1
	Sig. (2-tailed)	.000	
	N	150	150

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The finding reveals that the r value is in the significant relationship between enjoyment and commitment toward esports players. The r value 0.460 showed that there was positive and average relationship between enjoyment. According to (Cohen, 1988), it showed a large correlation. The Pearson correlation closer to +1 thus, the significant relationship between the two variables.

#### *The relationship between personal investment and commitment of esports players*

The second research question of this study was to assess the extent to which personal and commitment. Thus., the result, r value 0.934 showed there was a positive and average relationship between personal investment and commitment. According to (Cohen, 1988), it showed a large correlation. The Pearson correlation closer to +1 thus, the significant relationship between the two variables.

**Table 6.** Personal Investment and Commitment.

		Personal Investment	Commitment
Personal Investment	Pearson Correlation	1	.934**
	Sig. (2-tailed)		.000
	N	150	150
	<hr/>		
Commitment	Pearson Correlation	.934**	1
	Sig. (2-tailed)	.000	
	N	150	150

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### *Esports players social support and commitment.*

Finally, the last research question addressed the players social support and commitment. The finding found that there the r was a significant relationship between social support and commitment with the r value 0.863. The Pearson correlation closer to +1 thus, therefore, a positive relationship between social supports and commitment.

**Table 7.** Social Support and Commitment towards E-sport gamers.

		Social Support	Commitment
Social Support	Pearson Correlation	1	.863**
	Sig. (2-tailed)		.000
	N	150	150
	<hr/>		
Commitment	Pearson Correlation	.863**	1
	Sig. (2-tailed)	.000	
	N	150	150

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Discussion

This study examined the relationships of enjoyment, personal investment, and social support and the outcome of commitment of the esports players who had participated in MMA online competitions. The main reason for players going into esports was because playing this sport is very pleasurable. The players also felt that it is difficult to stop playing because of personal discipline and had to maintain their reputations in esports. In the social support most of the gamers felt that their mentor provided guidance in this esports. However, in terms of commitment the players felt that they were forced to keep playing this esports.

Thus, the findings of this study found that all the variables significantly affect the outcome of commitment. Additionally, it adds to the knowledge of SCM theory and may provide valuable information to inform publishers' marketing strategies in promoting fighting genre video games.

## Limitations and Directions for Future Research

A number of limitations of this study have been acknowledged. First, the sample was a convenience sample from a public university. Though it is significant to be as specific as possible when unfolding categories such as casual, hardcore, genre-specific whereby each type of games genre might have different factors of involvement and commitment. The esports players are certainly a various sample size and this sample only represents a small portion of video gamers who were classified as MMA gamers. It is likely that our comparisons of involvement levels did not include infrequent and less involved gamers, rather than examined relationships between the variables. Consequently, the study findings may not be generalized to all types of online games. Future research efforts might concentrate on more infrequent users and diversity of ethnicity, and people with incapacities.

Future investigations could be directed to differentiate the characteristics of online relationships and how it simplifies or pressure dealings within outside of the virtual environment. Another limitation is that the cross-sectional, correlational design of this study does not allow for a precise understanding that the independent variable was the cause of the dependent variable. A more precise study might emphasize the relationship between the various areas of enduring involvement and outcomes linked with other games from a different genre. This study focused on positive understandings of gamers thus future directed toward understanding the potential negative effects of centralizing one's life around video gaming can be addressed more in terms of qualitative research.

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## Ocena zachowań i zaangażowania graczy uprawiających elektroniczne mieszane sztuki walki

**Słowa kluczowe:** gatunek walki, gry wideo, e-sport, przyjemność, osobiste inwestycje, wsparcie społeczne, zaangażowanie

### Streszczenie

Tłó. W ostatnim czasie wzrosła populacja osób uprawiających sporty elektroniczne, a do popularnych należą gry z

gatunku MMA (Mixed Martial Art), które są jednymi z gier walki rozgrywanych na amatorskim i profesjonalnym poziomie turniejów sportowych.

**Problem i cele.** W pracy przeanalizowano zachowania i zaangażowanie graczy w ramach Modelu Zaangażowania Sportowego (Sport Commitment Model). Jest to stosunkowo nowa koncepcja zachowań w grach walki e-sportowej, która koncentruje się na przyjemności gracza, jego osobistej inwestycji, wsparciu społecznym i zaangażowaniu.

**Metody.** Zastosowano przekrojowy kwestionariusz z próbą  $N = 150$  graczy.

**Wyniki.** Wynik korelacji wykazał, że trzy elementy w zachowaniu graczy: radość, osobisty wkład i wsparcie społeczne mają znaczący wpływ na zaangażowanie. Wynik tego badania stanowi również odpowiedź dla ogółu społeczeństwa na pytanie o zachowania graczy w grach z gatunku bijatyk.

**Wnioski.** Eksperti sportów elektronicznych i marketerzy mogą potwierdzić i zoptymalizować zachowania i kierunek rozwoju sportów elektronicznych w zależności od siły napędowej graczy. Przyszłe badania mogą powielić to studium, porównując zachowania graczy gier walki z innymi gatunkami gier wideo.

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