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Factors Determining Pokémon Go Addiction in Malaysia

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ABSTRACT

Objective – This study focuses on factors determining Pokémon Go addiction behaviour among players in Malaysia. Using the Personal Construct Theory (PCT), the relationship between perception of Pokémon Go players and their addiction behaviour toward the game is examined. The objectives of this study are (1) to identify the levels of perception and addiction behaviour of the Pokémon Go players in Malaysia; (2) to determine the relationship between perception and addiction behaviour of the Pokémon Go players; and (3) to investigate the moderating effects of age, gender and ethnicity on the relationship between perception and addiction behaviour of the Pokémon Go players.
Methodology/Technique – The study employs the quantitative research design. The data are collected from 270 respondents using a self-administered questionnaire.
Findings – The results show that even though the addiction behaviour of Pokémon Go players is low, the perception of Pokémon Go players towards the game is positive. Therefore, both addiction behaviour and perception are positively related. Age and gender are found to be moderate in the relationship between perception and addiction behaviour. With these results, the assumptions of PCT hold true.
Novelty – The present study examines the relationship between perception of Pokémon Go players and their addiction behaviour toward the game. This research can provide insights regarding mobile gaming having similar features as the Pokémon Go.
Type of Paper: Empirical

Keywords: Gender; Malaysia; Mobile Games; Perception on Pokémon Go; Personal Construct Theory.
JEL Classification: D11, L82, L86.

1. Introduction

Pokémon Go is an internet-based mobile game that uses Pokémon creatures as its play items. In Malaysia, the game can be downloaded since August 6, 2016 (Kumar, 2016). Despite the widespread disturbing reports on 'pokemania' threats (Borland, 2016), the followers still embrace the game and believe that the positive effects outweigh the negative ones (Chan, 2016). The game has attracted people from different backgrounds such as students, workers and even retirees become part of Pokémon hunters (Zainal, 2016).

Due to the excitement to the game, there is an increase number of news involving the players. The Malaysian Employers Federation (MEF, 2016) finds that 4% out of 150 companies have dismissed workers due to their excessive playing of Pokémon Go; while other employers have issued warning letters and

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suspended their workers from work without pay (Meikeng, 2016). There are also reports about players who got injured in road accidents (Astro Awani, 2016) and of a student who fell into the drain for chasing Pokémon (Ismail, 2016). On other occasions, the placing of PokeStops at worshiping places have drawn crowds to these places touching on sensitivities as such places are sacred (Malaysiakini, 2016).

The unpleasant trends related to this game have raised public concerns about the effects of the Pokémon Go gaming on public safety; this has urged the authorities to take action toward it (Bernama, 2016). On August 10, 2016, the Malaysian Communications and Multimedia Commission (MCMC, 2016) issued general security guidelines for Pokémon Go players in Malaysia. The guidelines advise players to constantly be aware of their surroundings and the sensitivities of the local community while playing the game (New Straits Times, 2016).

Prior to August 1, 2016, the Islamic Legal Consultative Committee in the Federal Territory declared a ban on Muslims from playing Pokémon Go and this was supported by the Department of Islamic Development Malaysia (JAKIM) (Malay Mail Online, 2016). The edict was made after considering the opinions and *Fatwas* from the highly authorized Muslim scholars such as Syeikh Prof. Dr. Yusuf al-Qaradhawi, Syeikh Prof. Dr. Abbas Syuman and the Supreme Council of Muslim Scholars in Saudi Arabia *(Hai'ah Kibar Ulama)* (Noor, 2016). This was followed by the ban from the Ministry of Education on students from playing the game while in the school compound. Pokémon Go players of different ages, gender, and ethnicity tend to ignore the warnings and continue playing the game. As Pokémon Go is still new, there are limited studies about the game, especially in terms of factors determining the players' addiction behaviour. As such, this study aims (1) to identify the level of perception and addiction behaviour of Pokémon Go players in Malaysia; (2) to determine the relationship between perception and addiction behaviour of the Pokémon Go players; and (3) to investigate the moderating effects of age, gender and ethnicity on the relationship between perception and addiction behaviour of the Pokémon Go players.

The majority of the studies on the online gaming is done in the field of Psychology (Boyle, Connolly & Hainey, 2011; Kuss, 2013); the present study might contribute to the field of Communication. Besides emphasizing on safety awareness in the society, this research can also provide insights for the government to form new policies and security guidelines regarding mobile gaming having similar features as the Pokémon Go.

2. Literature Review

2.1 Pokémon Go craze

Pokémon is a brand owned by the Pokémon Company in Japan. The brand was launched in 1996 and became popular around the world as children's entertainment products, for instance, animation and video game series (The Pokémon Company, 2017). Pokémon Go was developed by Niantic Inc. and got its first release on July 6, 2016, in the United States, Australia and New Zealand. The game utilizes the Global Positioning System (GPS) in the players' iPhone and Android devices to locate, capture, battle, and train virtual Pokémon creatures in the 'real-world' setting. The popularity of the game is proven with 100 million downloads by Google Play users, within two days after its launching (Business of Apps, 2016). However, the launch in other countries was slightly delayed as the developer servers were frequently crashed due to excessive download by users. In Malaysia, the fans could only download the game a month later in August, 2016.

There are many reasons why people are so eager to play the game. Yang and Liu (2017) find that some players are playing the game for the fun of it, to maintain friendships, to initiate new relationship, to exercise, and to feel the sense of achievement after catching Pokémon. These motives are positively correlated with their positive life-styles such as having high self-satisfaction with strong bonding and bridging. However, there are also players who play for escapism and nostalgic reasons. These groups of players are associated with poor psychosocial life such as being lonely with low self-esteem and lack social bonding and bridging with friends.

The hype of this game has caused many incidents among its players around the world. For example, the game has caused injuries to its players due to accidents or to become victims of domestic crimes (syracuse.com,

2016). There are also alarming issues about national security and invasion when the location-based game is activated in restricted and private areas (Bhattacharyya, Ray, Bhattacharya, & Mallick, 2016). Although some countries have filtered the game, millions of technology-savvy players are still able to use anti-filtering software to play the game (Dehghan, 2016).

2.2 Factors determining Pokémon Go addiction behaviour

Studies have found that gaming addiction is a behavioural addiction that is similar to alcohol and drug addictions (Griffith, 2014; Kuss & Griffiths, 2012). Bhattacharyya et al. (2016) identify four similarities between Pokémon Go and drug addiction. The players lose control and spend excessive time playing the game, neglecting job/study responsibilities, taking risk in doing dangerous activities or going to dangerous places, and having issues on maintaining a marital relationship. These types of behaviours are detrimental to the family institution.

King and Delfabbro (2016) suggest that adolescents may have a set of positive perceptions when they excessively play a game while the players anticipate a rewarding outcome, thus raising self-esteem and gaining social acceptance through it. In the U.S., 63% of Pokémon Go players are women. The average age of a player is 25-years-old, with tertiary education and earning USD90,000 a year (Forbes, 2016).

2.3 Personal Construct Theory

This study applies the Personal Construct Theory (Kelly, 1955) which explains how people develop different perceptions about events that happen around them. The basic assumption is that human behaviour is shaped by the way people anticipate the future as well as future events. If the event promises a positive outcome, then the actions are in line with their behaviour set before. So, in this case, if a player predicts to successfully catch Pokémon, he/she will try his/her best, despite obstacles and hurdles. This will result in continuing their actions which are in line with their knowledge and perception of being successful Pokémon trainers.

Based on the discussion, the study formulates the following hypotheses - H1: perception positively correlates with Pokémon Go addiction behaviour; H2: age moderates the relationship between perception and addiction behaviour; H3: gender moderates the relationship between perception and addiction behaviour; and H4: ethnicity moderates the relationship between perception and addiction behaviour.

3. Methodology

In 2016, the population of Malaysia is 31,660.7 with 16,362.5 (51.6%) males and 15,298.2 (48.3%) females (Department of Statistics Malaysia, 2017). The population consists of 6,113.7 (19.31%) youths (15 to 24 years old) and 17,784 (56.2%) adults (25 and above) (Department of Statistics Malaysia, 2017). According to ethnicity, Malays form half of the population (19,483.6, 61.3%) as compared to the other ethnic groups: Chinese (6,648.0, 20.9%), Indians (1,992.0, 6.3%) and others (281.4, 0.9%) (Department of Statistics Malaysia, 2017).

This study employs the quantitative research design using self-administered questionnaire. A total of 270 respondents are identified in the Klang Valley, consisting of 146 (54.1%) males and 124 (45.9%) females. Their age is grouped into youths (25 years old and below) and adults (26 years old and above) where 188 (69.6%) are youths and 82 (30.4%) are adults. Malays make up 55.6% while others are 44.4%.

There are 10 self-developed items under perception such as ‘I believe that playing Pokémon Go is a way to relieve stress,’ with Cronbach’s alpha α=.839. Ten items under addiction behaviour are adopted from the Game Addiction Inventory for Adults (GAIA) (Wong & Hodgins, 2013) such as ‘I think I am addicted to Pokémon Go,’ with Cronbach’s alpha α=.924. Each item is measured using a 5-point Likert scale, where 1=strongly agree, 2=disagree, 3=slightly agree, 4=agree and 5=strongly agree. The construct is formed in terms of a submitted scale.

4. Results

To identify the levels of perception and addiction behaviour, a one-sample t-test with a test value of 3 is used. Table 1 shows that the level of perception on Pokémon Go is positive (M=3.169, SD=0.779; t(269)=3.563, p=.000) while the addiction behaviour of Pokémon Go players is significantly low (M=1.912, SD=0.878; t(269)=-20.365, p=.000). This indicates that Pokémon Go players have a positive perception towards the game but low in their addiction behaviour. The relationship between perception and addiction behaviour of Pokémon Go players is analyzed using Pearson product-moment correlation (PPMC). The result shows that perception is positively correlated with addiction behaviour, but the relationship is significantly low (r=.226, ρ=.000).

Table 1. One-sample t-test on perception and addiction behaviour

Variables	M*	SD	t**	df	p
Perception on Pokemon Go	3.169	0.779	3.563	269	.000
Addiction behaviour on Pokemon Go	1.912	0.878	-20.365	269	.000

*On a 5-point scale: 1=strongly disagree, 2=disagree, 3=slightly agree, 4=agree, 5=strongly agree,
**test value of 3

Table 2 explores the moderating effects of age, gender and ethnicity on the relationship between perception and addiction behaviour; a General Linear Model is used. Table 2 shows that age F(1,267)=8.213, p=.004 and gender F(1,267)=4.347, p=.038 significantly moderate the relationship between perception and addiction behaviour. However, ethnicity F (1,267)=0.111, p=.699 does not moderate the relationship. Therefore, H1, H2 and H3 are supported but not H4. The results imply that youth and male players enhance the relationship between perception and Pokémon Go addiction behaviour.

Table 2. Moderating effects of age, gender, and ethnicity on perception toward addiction behaviour

Source		Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	Hypothesis	15.968	1	15.968	15.132	.005
	Error	7.722	7.318	1.055		
Perception	Hypothesis	10.932	1	10.932	15.299	.000
	Error	190.789	267	.715		
Age	Hypothesis	5.869	1	5.869	8.213	.004
	Error	190.789	267	.715		
Intercept	Hypothesis	20.330	1	5.869	23.524	.000
	Error	18.678	21.613	.715		
Perception	Hypothesis	8.808	1	20.330	12.154	.001
	Error	193.507	267	.864		
Gender	Hypothesis	3.151	1	8.808	4.357	.038
	Error	193.507	267	.725		
Intercept	Hypothesis	18.739	1	18.739	26.764	.000
	Error	186.209	265.948	.700		
Perception	Hypothesis	10.503	1	10.503	14.267	.000
	Error	196.547	267	.736		
Ethnicity	Hypothesis	.111	1	.111	.150	.699
	Error	196.547	267	.736		

5. Discussion

The study finds that Pokémon Go is usually played by Malay young male players. The respondents have a slightly positive perception about Pokémon Go but their level of addiction toward the game is relatively low. It can be inferred that even the respondents conceive a moderate perception about the game, there is a small tendency for the players to get addicted to the game, supporting H1. Age and gender significantly moderate the relationship between perception and addiction behaviour, thus H2 and H3 are supported. These results indicate that young male players are the moderators that influence the relationship between perception and the addiction behaviour. Thus, young male players do risk their lives due to addiction to the game. Ethnicity, on the other hand, is not proven to be a moderator on the relationship. Thus, H4 is not supported. Therefore, neither Malays nor other ethnic groups can determine the addiction behaviour of Pokémon Go players. Even though, the Fatwa has been endorsed forbidding the playing of Pokémon Go among Muslims (Malays), yet the Malays still form the bulk of players.

6. Conclusion

It can be concluded that players have a positive perception which influences their addictive behaviour of the Pokémon Go game. In addition, young male players tend to be addicted players. However, the addictive behaviour is significantly low, hence, the problem is not that threatening. There are more young Malay players who are addicted to it. Thus, they do not adhere to the Islamic rules and regulations despite the fact that the Islamic Legal Consultative Committee of the Federal Territories has declared that playing Pokémon Go is prohibited for Muslims. The finding proves that Muslim youths tend to ignore the declaration. The authority concerned should therefore enforce the rules and regulations seriously. Since the study is limited to the Klang Valley, future research should consider going nationwide.

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