The Antecedents of Smartphone Technology Addiction among Hotel Employees

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Abstract

Smartphone technology has surpassed the basic necessity of human basics needs, from a want to a need in life. It has become a very important tool that helps with our work and everything we do in our daily life. Hence, with the excessive freedom of use of smartphone technology, it has become an addictive behaviour which provides a negative effect affecting our daily life. This study investigates the addiction of smartphone technology in Sarawak based on their psychological and behavioural motives. In this present study, the link between antecedents such as perceived enjoyment, pastime, mood regulation and conformity (whether any positive or negative effect) and smartphone addiction was examined. Smartphone addiction was related to a greater amount of leisure time spent on the smartphone and was strongly related to a positive impact of smartphone use on a daily work basis. With that, this study will be conducted using SPSS version 23 to analyse the data collected from the distribution of questionnaires to the sample population which is 200. The sample size will be generated from the used of G*power software. Statistical data revealed that perceived enjoyment, mood regulation, pastime, and conformity positively significant with smartphone addiction. This study has covered the limitation of the unknown studies about smartphone addiction among hotel employees in the Asian context.

Keywords: Smartphone Addiction, Perceived Enjoyment, Mood Regulation, Pastime, Conformity.

Introduction

The Malaysian tourism industry has become one of the important contributors in national income and regarded as an important economic activity of the nation. Through the tourism industry, the nation has gain RM84.1 billion to the economy with 25.8 million tourists in 2018 while in 2019 a total of 28.1 billion in tourist arrival and 92.2 billion in tourist receipt. Based on statistic figure given by Tourism Malaysia in January until September 2019, tourist arrivals to Malaysia increased by 3.7% over the same period last year to 20.11 million. In view of the promising statistic figure given, it can be concluded this industry can be further enhanced toward service climate which refer as focusing on quality customer service delivery which involves a high amount of time and effort by the hotel employees toward customer satisfaction (Kilic & Dusun, 2007). the biggest challenge is to ensure that

our human capital is committed, service-oriented as well as motivated to deliver quality services in relation to the growing numbers of tourist arrival in Malaysia.

In this modern technology era, our daily life is affected by technology and from a "want" becomes a "need" for humankind, it becomes part of a basic necessity in our daily life. With the rapid growth of communication technologies (e.g. Internet and Smartphone), It has become a central tool in personal lifestyles and organizational activities (Bergstrom & Backman, 2013). To support this statement, the smartphone plays a role in affecting us to get addicted and be part of our daily life. Many smartphone users have reported that they would not be able to live without a smartphone (Wajcman, Bittman, & Jones, 2007). Recent studies have shown that smartphone addiction has rapidly increased in many countries (King et al., 2013; Walsh et al., 2008). Based on a research from China, the finding showed that 48.9% of smartphone users have some symptoms of addiction (Yen et al., 2009). In the Europe context, a sum of 8% of university students proves to have problematic symptoms on smartphone addiction (Beranuy et al., 2009; Jenaro et al., 2007). Although it has become a natural modern phenomenon (Boyd & Elison, 2007), there are concerns regarding the excessive and compulsive usage of smartphones which has led to a negative side effect towards individual health and their daily activities (Andreassen & Pallesen, 2014). Some researchers detest and debate that smartphones widely have some advantage at the workplace by providing internal and external communications and cooperation while allowing the flexibility of an organization of work and information sharing in real (Kossek & Lautsch, 2012; Lanaj, Johnson & Barnes, 2014). However, in another research that was carried out, there was an opposing idea by emphasizing the unintended negative impacts on workers (Derks & Bakker, 2014; Perlow, 2012). Past literature had been done and demonstrated that for workers who are severely dependant on smartphones at work, it is not easy for them to detach and let loose themselves psychologically from their work and their phones, leading to serious anxiety and stress (Derks & Bakker, 2014; Perlow, 2012). This issue arises with the problems about whether phone addiction may interrupt and cause a negative impact on both work and life well-being among the hotel employees.

Literature Review and Hypothesis Development
Hypotheses 1: Perceived enjoyment positively significant correlate with Smartphone Addiction
Perceived enjoyment was defined as "the extent to which the activity of using technology is perceived to be enjoyable in its own way, apart from any other performance consequences that may be anticipated" (Davis, 1989). Basically, perceived enjoyment is a form of intrinsic motivation which emphasizes on the pleasure and inherent satisfaction derivate from a specific activity or event. Davis (1989), found that the perceived usefulness had a large significant effect on the intention to adopt technology and the influence was connected to perceived enjoyment. There were a number of past studies conducted to examine the effect of perceived enjoyment in technology usage (Van der Heijden, 2004). The studies stated that mobile technology is favoured by many individuals especially in the millennial era because they find it fun to communicate with peers and they enjoy this new way of communication (Van der Heijden, 2004). This research shows that perceived enjoyment is an important factor that can lead to the addiction of smartphone. Hence, the hypothesis proposed in this study is: There is a positively significant correlation between perceived enjoyment and smartphone addiction.

Hypotheses 2: Mood Regulation positively significant correlate with Smartphone Addiction
An individual's mood can be related to the emotional responses that are generated naturally. The emotional response can feedback and cause the change from the original situation (Khang & Kim, 2013). For example, a person mood or emotion can be affected by the annoyingness of a noisy neighbour. Thus our emotion or mood has caused a change in the situation, and we must now respond to a new situation. Therefore, an individual's mood is constantly moderating the situation in which an individual finds themselves in, causing to reappraise and response to the situation as it develops or occur (Gross & Thompson, 2007). Based on the study from Xu, Turel and Yuan (2012), an individual often experience mood regulation when he or she uses a smartphone, where he or she is more likely to have a higher level of addiction towards the used of smartphone technology. Hence, the hypothesis proposed in this study is: There is a positively significant correlation between mood regulation and smartphone addiction.

Hypotheses 3: Pastime positively significant correlate with Smartphone Addiction
A study by Khang, Kim and Kim (2013) showing that individual will tend to use their smartphone daily during their free-time which will become a habit and eventually an indirect addiction. Based on Play theory, *pastime* is defined as occupying an individual's free-time with no productive interest (Yoo, 2011). Boredom is another factor that will lead an individual towards smartphone addiction which further leads to the variable pastime (Samaha & Hawi, 2016; Shin & Lee, 2014). A report by Montag and Walla (2016) states that an average individual in this current technology era uses a smartphone at least 19 hours in a week. This research stated that, rather than a relaxing leisure pursuit, they perceived that the usage of smartphone causes negative lifestyle side effect on their daily life. Another research carried out by Lee et al. (2014) stated that most individual uses smartphone technology because of stress happened in their daily life. Hence, the hypothesis 3 proposed is: There is a positively significant correlation between pastime and smartphone addiction.

Hypotheses 4: Conformity positively significant correlate Smartphone Addiction
Conformity is defined as a behaviour that follows the usual standards that are expected by a group or society (King et al., 2013). Individual behaviour is affected by another individual's behaviour during interaction or any conversation done through social media, this social influence is known as conformity. A research done by Khang, Kim and Kim (2013) shows that individual uses smartphone conformity motives which is to gain identification and to avoid disapproval among their friends. Therefore an individual with high levels of conformity motive will have high levels of excessive smartphone usage and eventually leading to an addiction. The conformity motive highlights individuals' needs to avoiding peer disapproval (Stewart & Devine, 2000). Hence, the proposed hypothesis 4 in this study is: There is a positively significant correlation between conformity and smartphone addiction.

Thus, based on the 4 hypotheses developed in this study, it can be concluded that based on past literature smartphone usage was developed by building upon the criteria of behavioural addiction (Rush, 2011). In addition, Park and Lee (2011) examined the impacts of perceived enjoyment, mood regulation, pastime, and social relationship and also conformity on the compulsive use of smartphones, which was found out to be significantly correlated. Oulasvirta et al. (2012) reported that daily habit of smartphone usage may make it more intensive on the addiction. Chiu, Lee and

Huang (2004) posited that life stresses may lead to smartphone addiction indirectly through social self-efficacy.

Based on the literature review, the antecedents (perceived enjoyment, pastime, mood regulation and conformity) as independent variables and Smartphone Technology addiction as dependent variable is used to create a research model of four hypotheses as shown in fig 1.
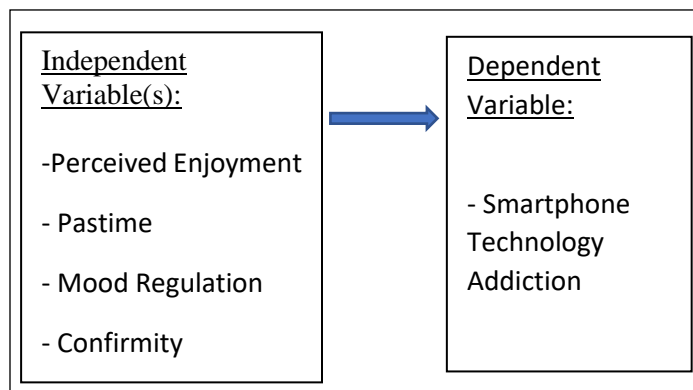

Fig 1: Research Model

Underpinning Theory

The theory of dualist model passion is applied in this study which consist of two variables of harmonious passion and obsessive passion. Vallerand et al. (Vallerand, 2003) defined passion as "a strong inclination towards an event that an individual may have an interest in, and will put their time into doing it". According to the theory, it has a lack and unclear of determinant which might lead to smartphone addiction, with that, a proposed framework was created with the addition of four (4) motives or variables that break into both category of harmonious and obsessive passion that leads to smartphone addiction. In specific, enhancement of motives includes perceived enjoyment, mood regulation, pastime and also conformity. These motives are the key to determine smartphone addiction and closing the theoretical gap.

Method

The sampling population are among the full-time hotel employees who given prior approval and consent by the management and the hotels are registered members under the Malaysia Association of Hotel, Sarawak Chapters. The sample sizes should exceed 30 and less than 500 for most of the research (Roscoe, 1975). Thus, this quantitative research method was applied with self-administered survey questionnaires through purposive sampling method. A total of 200 questionnaires valid questionnaire collected exceeded the minimum sampling calculated with the G*power version 3.1.9.2 with the actual power 0.950 and 0.15 effect size which took 2 months to complete for data collection. There were no major issues with regard to the normality, outlier, validity as well as reliability during the pilot study and actual study. All the items had exceeded the minimum, factor loading of 0.40 (Hair et al., 1998), Kaiser-Meyer-Olkin (KMO) value surpassed 0.70 value (Kaiser, 1974), Barlett Sphericity Test with p-value of 0.000 which justify that the all correlation matrixes are free of similarity of matrix (Hair et al., 1998). Table 1, research instruments were all adopted from previous literature with exceeded factor loading and Cronbach alpha values (Nunnally, 1978).

TABLE 1 : RESEARCH INSTRUMENTS

No	Variables	Total Items	Sources	Factor Loading	Cronbach Alpha (α)
1	Perceived Enjoyment	3	Turel & Serenko 2012	.845 -.947	0.95
2	Mood Regulation	4	Caplan, (2010); Stewert et al., (2006)	.754 - .838	0.94
3	Pastime	2	Khang et.al. 2003	.844 - .844	0.97
4	Conformity	3	Khang et al. 2013; Stewert et al. 2006	.628 - .849	0.95
5	Smartphone Addiction	5	Turel & Serenko, 2012	.401 - .703	0.82

Results and Findings
The result of demographic profile indicates that the gender of respondents representing more male than female, which were 101 (50.5%) male which 99 (49.5%) female out of 200 respondents. Concerning the age, it shows that majority of the respondent is from the age of 20-30 with a frequency of 126 (63%), followed by the age below 20 were 35 (17.5%). It is then followed by the age of 31-40 with the frequency of 26 (13%). For ages below 41-50, there were 12(6%) respondents and there was 1 respondent with the age in the range of 51-60 (0.5%). The result on the race; the majority are Chinese of 114 (57%) respondents, 21 respondents were Bidayuh (10.5%) and Malay (10.5%), which is then followed by Iban of 18 respondents (9%), Melanau with 12 respondents (6%), and others which consist of Lun Bawang, Bisaya, Indian, Vietnamese, and also Kelabit with the total frequency of 14 (7%). Majority of the respondent are Bachelor degree holder with 116 respondents (58%), followed by Diploma with 47 respondents (23.5%), Masters and High School with 12 respondents (6%), and Foundation with the frequency of 8 (4%) and PhD with 3 respondents (1.5%), and Associate Degree with 2 (1%) respondents. Majority of the respondent are in the state of unmarried for their marital status with the frequency of 170 respondents (85%), followed by Married with the frequency of 29 respondents (14.5%), and widow with the frequency of 1 respondent (0.5%).

Correlation between Antecedents (perceived enjoyment, pastime, mood regulation and conformity) and Smartphone Technology Addiction Underpinning Theory
As shown in Table 2, the Pearson Correlation result statistically revealed each independent variable (perceived enjoyment, pastime, mood regulation and conformity) is significantly positively correlated at 0.01 levels (1-tailed) toward dependent variable (smartphone technology addiction). The result also revealed that the strongest positive correlation with smartphone technology addiction is conformity (r = .632) followed by pastime (r = .353) and thirdly was perceived enjoyment (r = .266). Mood regulation (r = 252) was the lowest variable which reveal the result as a weak positive correlation with smartphone technology addiction.

TABLE 2 : THE CORRELATION BETWEEN ANTECEDENTS AND SMARTPHONE TECHNOLOGY ADDICTION

Variable(s)	Pearson Correlation	Sig. (1 tailed)	n
Perceived Enjoyment	.266**	.01	200
Pastime	.353**	.01	200
Mood Regulation	.252**	.01	200
Conformity	.632**	.01	200

**Correlation is significant at the .01 level (1-tailed)

Multiple Regression

Multiple regression is conducted to determine the effects of independent variables on dependent variables (Sekaran & Bougie, 2010) and applied for testing the significant relationship between variables (Simon, 2003). Confidence level of 95% and margin error level of 5% are used as a pre-requisite for p-value of data to not exceed 0.05 to determine the hypothesis are supported. The results of the regression indicated the conformity (β=0.427, p=0.000), Perceived Enjoyment (β=0.112, p=0.000), Mood Regulation (β=0.215, p=0.001) and pastime (β=0.026, p=0.001). The antecedents explained 50% of the variance (R^2=.50, F(5,194)=38.283). It was found that all predictors significantly predicted smartphone technology addiction with a significant level below than .05.

TABLE 3 : REGRESSION ANALYSIS

Variables	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
(Constant)	.731		2.273	.024
Perceived Enjoyment	.130	.112	1.784	.000
Mood Regulation	.182	.215	3.248	.001
Conformity	.356	.427	6.162	.000
Pastime	.022	.026	1.390	.001

(Note: R2 = .50, *P<.001)

Discussion

Perceived enjoyment is a form of intrinsic motivation which emphasizes on the pleasure and inherent satisfaction derivate from the specific activity or event. A study was carried out and found that the perceived usefulness had a large significant effect on the intention to adopt technology and the influence was connected to perceived enjoyment. This present study aligns with the past studies reported by Van der Heijden (2004) on the effect of perceived enjoyment in technology usage. In the context of hotel employees, mobile technology is favourable aset to them especially in the millennial era because they find it fun to communicate with peers and they enjoy this new way of communication (Van der Heijden, 2004). In this manner, most hotel employees depend on smartphone to perform their duty through transmitting or relying important messages to their peers and superiors as this are the objective toward developing service climate in the hotel setting (Kasa &

Hassan, 2019)   For example, work related in the hotel setting such as transmitting important informations such as VIPs' arrival, guest's special request upon arrival as well as "negative" feedback about the works details and about the rude behavior of the guest they served.

Mood regulation positively correlates with smartphone addiction which shows that individuals turn to smartphone when they feel moody or emotional. Hotel employees who delivering services to the clients, their mood flatuated by the emotional responses which are are totally natural. In saying this, the hotel employees' emotional response may causing by the certain change from the any situation (Gross & Thompson, 2007). For example, at a time you coming to your work station at the hotel's restaurant in a good and positive mood and in a while you are not in a stable mood due to feeling annoyed by the fussy customers. Thus, to overcome the feeling of uneasy and annoying mood an individual tend to control the mood by turn to their smartpone. In relation to the example mentioned, a study by Xu, Turel and Yuan (2007) mentioned that individual who experience mood disorder, where an individual is more likely to have a higher level of addiction towards the used of smartphone technology. As conclusion based on this present finding, mood regulation has a positive correlation with smartphone addiction and shows that individuals turn to smartphone when they feel moody unstable or emotion. In other simple words, it is said that an individual mood can be changed just in a blink of an eye with the usage of smartphone. This can also be implying that mood regulation will lead to addiction whereby the individuals feel carefree of their worries especially at the work setting which are consider as stressful and hectic environment.

Pastime positively correlated with smartphone addiction and shows that individuals spend most of their free-time or pastime with smartphone technology. Past studies revealed that an individual will tend to use a smartphone during their free-time at a daily basis and will become a habit which will eventually become an indirect addiction (Kim et al., 2013). Based on Play theory, pastime is defined as occupying an individual free-time with no productive interest (Yoo, 2011). As reported by Montag and Walla (2016), on average an individual in this current technology era uses a smartphone at least 19 hours in a week and more surprisingly rather than a relaxing leisure pursuit, Montag and Walla (2016) perceived that the usage of smartphone causes unhealthy lifestyle side effect on the individual daily life. While another study conducted by Lee et al. (2014) reported that most individual uses smartphone technology because of the stress they experience in their daily life. It can be concluded that pastime hotel employees will usually use a smartphone during their pastime especially during their break time while having their meal at the staff canteen or cateria. In addition, hotel employees relying as well as dependent on their smartphone when they are bored at times that there are no customers around to serve and thus this situation will lead them to smartphone usage.

Conformity has a positively correlated with smartphone addiction and shows that smartphone technology has become a symbol of status in this current technology era to whereby peoples will judge another person by their possessing of the smartphones. This is where it can be said that conformity main motive highlights an individual needs of avoiding peer disapproval (Stewart et al., 2006). Conformity is defined as a behaviour that follows the usual standards that are expected by a group or society. Individual behaviour is affected by another individual's behaviour during interaction or any conversation done through social media, this social influence is known as conformity. A research done by Khang, Kim and Kim (2013) reported that individual uses smartphone to gain identification and to avoid disapproval among their friends, therefore, if that individual has a high level of conformity, this will eventually lead to addiction from the excessive usage of smartphone technology. People want to fit in a certain society to feel they are part of something and not left out.

In other words, hotel employees definately have their basic needs of attention or can be said as "attention -seeking" where they want other peoples to notice for their greatness althought they are only a lower ranking position in the hotel such as waiters, receptionist, stewarding or public area attendants. Therefore, conformity plays an important role in which it is not relevant to the context of "prestigious" or "social rank" among the hotel employees. Hotel employees who often feel conforming to the social circle will feel comfortable from the attention given which may lead to the negative side effect which refer as "showing off" lifestyle.

Implication and Limitation

This study adds to the existing studies by focusing on the antecedents of smartphone addiction. This research is one of the first to incorporate the theory of the dualist model of passion to comprehend the correlation with smartphone addiction. Our empirical findings confirm the validity of this framework. Where it shows that perceived enjoyment and pastime can be classified under harmonious passion which it leads to more positive factor, whereas mood regulation and pastime has an obsessive passion which leads to a more negative factor which leads to smartphone addiction. Moreover, this research is consistent with the view that different motives that may influence an individuals addiction to technology differently (King et al., 2013). It is suggested that an individual is more likely to get addicted to smartphone when he/she uses a smartphone for leisure, for example, gaming, watching video, and also social media (King et al., 2013). Compared to just seeking information and web browsing, which is less likely to get addicted. But in the present research, it is to be said, with any kind of main objective from the use of the smartphone, an individual will eventually get addicted regardless of the purpose it is used for (King et al., 2013; Gross & Thomposn, 2007). Thus, along with the recent prevalence of smartphone, these devices have become highly convenient and powerful to be controlled rather to control. Anyone can have the excess of smartphone technology anyway and anytime. Thus, it is important to pay attention to the addiction of the devices and avoid a potential negative outcome especially working in the setting that responsible fully in creation of service climate industry. Although the suggestion to cutting down the excessive use of smartphone in the hotel work setting should be avoid into getting addicted. However, the positive outcome of excessive usage of smartphone are acceptable such as using smartphone to do marketing and promotion, room booking or VIP's arrival arrangement. Hence, with the variables present in this research such as perceived enjoyment, mood regulation, pastime and also conformity motives is being demonstrated within an individual in the context of hotel industry which can lead to addicted scenario if the excessive usage not properly being control or monitored by their superior or supervisor.

Limitation faced in this research was the unawareness of the respondents on their own character and habit towards addiction of smartphone technology. Some of the questions provided in the questionnaires clearly stated the characteristics of an addict, but the unawareness of the respondents on themselves cause them to provide an inaccurate respond and thus might affect the findings result. In respond to the limitation, a recommendation of making the respondent to really understand and comprehend the question might help to increase the accuracy of responding. Another way is to have a qualitative method study carried out to fully see their reaction and emotion when they answer and see whether it is based on their current character well-being

Conclusion

In conclusion, the research highlighted the effect of smartphone addiction through psychological motives. This research can be an offering of insight to the public where it will be an awareness of smartphone addiction. Along with the recent prevalence of smartphone; these devices have become highly convenient and powerful to be controlled rather control. Anyone can have the excess of smartphone technology anyway and anytime. Thus it is important to pay attention to the addiction of the devices and avoid a potential negative outcome. It may be helpful if an individual also avoids the excess used of smartphone technology when their emotional is interrupted in their daily work as it will cause mood regulation and the use of smartphone will cause he/she to indulge into it and causes addiction (Caplan, 2010). The hotel management should develop an effective policy, particularly on smartphone usage while working at the hotel to avoid spending unnecessary time on using smartphones for non-work related purposes, which will jeopardize the service climate in the hotel.

Acknowledgement

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