SMARTPHONE DEPENDENCY AND IMPACT ON CONSUMER PURCHASE BEHAVIOR OF PEOPLE IN KOTA KINABALU

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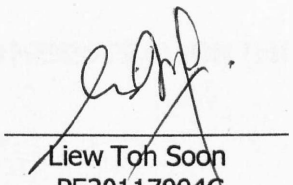

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ABSTRAK

Trend penggunaan telefon pintar semakin mendapat sambutan yang baik di Malaysia dan industri yang menguntungkan ini telah menjadi salah satu industri yang penting dalam negara. Dengan mengubah rangka kerja Ting et al. (2011), antecedents *dan* outcome *pada* smartphone dependency *telah ditentukan dikalangan pengguna di Kota Kinabalu. Kajian ini menggunakkan teori* uses and gratification *untuk menentuk motivasi seseorang menggunakkan telefon pintar dan teori* media dependency *untuk mendefinisikan d*ependency *dan menenetukan* outcome. *Objektif kajian ini dapat dicapai melalui* multiple regression analyses *antara pembolehubah* antecedents *dan* dependency. *Ini diteruskan dengan* simple regression analyses *antara* dependency *dan* purchase behavior (outcome). *Pembolehubah yang dicadangkan merangkumi* entertainment, convenience, social need dan social influence. *Akan tetapi, factor analysis mencadangkan bahawa* social influence *dan* convenience *adalah pembolehubah berdimensi.* Descriptive norms *dan* time utilization *merupakan dimensi untuk* social influence *manakala* portability *dan* time utilization *merupakan dimensi untuk* convenience. *Data analysis kajian ini berpadukan pada 226 responden yang sah. Keputusan analysis tersebut menunjukkan bahawa cuma* social needs *and* subjective norms *mendapat keputusan yang ketara terhadap* dependency. *Selain itu,* dependency *menunujukkan keputusan yang ketara pada* purchase behavior (outcome).

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ABSTRACT

Dependency on Smartphone and Impact on Purchase Behavior of People in Kota Kinabalu

As the growing trend of smartphone usage in Malaysia, the smartphone industry has become an important and profiting industry in the country. With the modification of the framework by Ting, Lim, Patanmacia, Low and Ker (2011), the antecedents and outcome of smartphone dependency among the consumer in Kota Kinabalu were determined. The study uses the theory of uses and gratification to determine the motivation uses of smartphone and the media dependency theory to define dependency and its outcome. The objective of this study can be achieve through multiple regression analyses of antecedents variables with dependency and followed by simple regression between dependency and purchase behavior (outcome) of the study. The proposed antecedents' variables consist of entertainment, convenience, social need and social influence. However, factor analysis had suggested that social influence and convenience to be a multidimension construct. Descriptive norms and subjective norms were dimensions for social influence whereas portability and time utilization were dimensions for convenience. Data analyses were based on 226 valid questionnaires that were collected. The result from the analysis shows that only social needs and subjective norms were significantly influence the smartphone dependency factors among consumer in Kota Kinabalu. The other factors of entertainment, descriptive norms, utilization and portability show not significant and do not influence the smartphone dependency. On the other hand, dependency on smartphone does show significant result and influence on purchase behavior as the outcome of the study.

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Chapter 1

Introduction

1.0 The Evolution of Mobile Phone

Previously when people were in the street out from their house and wanted to call back home they would collect some coins and walked to the nearby public telephone and made their call. Over the years, technology has improved and in 1984, Malaysia launched it very first mobile phone to the public namely ATUR (Sivalingam, 2009). Back then, mobile phones were all big in size expensive and only affordable by businessmen and widely used by people who work in the sea or forest.

Today, mobile phone had evolved. It is smaller and much thinner than the first ever introduced ATUR mobile phone. Most importantly, it has been widely accepted by people all around the world. Not only that, the price of mobile phone had comes with a wide range of prices. The lower end range of mobile phone falls below RM500, the middle range between RM500 to RM1500 and the upper end are those above RM1500. Due to that, it is perceived to be a ubiquitous communication device (Haverila, 2011) and has proliferated around the world including Malaysia (Balakrishnan and Raj, 2012). The evolution of mobile phone does not stop at merely for audio calls and Short Message Service (SMS). Throughout the years, mobile phone manufacturers had incorporated all sort of multimedia features into their mobile phone product to enhance the usage of the phone. For example, 3G network, emails, MP3 player, videos, games, web surfing, camera and video recording had been incorporated into the mobile phone. On top of that, the local telecommunication service provider had improves their service with wider network coverage and faster mobile internet service.

The enhance features of mobile phone has created a new segment in the mobile phone industry. It is known as the smartphone. According to Osman, Sabudin, Osman and Yen (2011), smartphone is mobile phones that build with mobile computing platform which has advance computing ability and connectivity.

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Smartphones run on an operating system that is able to install extra application. This means that smartphones are able to perform most of the basic simple task that a computer can do for example surf the web, documentation, organizer, reminder, GPS, emails and multimedia application. Smartphone offer a more advanced computing power and connectivity than a normal phone or features phone (Osman *et al.,* 2011). Wei (2008) reported that the growing trend of the high-tech mobiles phones not only transmit voice, but also offer an interactive interface on a color LCD display capable of handling voice, text, video, music and graphic. There are few giant producers of smartphone; Apple, HTC, Samsung, Nokia, Sony Ericsson and Motorola where they made the phone have an operating system running on IOS, Android, Symbian as well as Windows mobile.

1.1 The Smartphone Industry

According to Goldman (2010), smartphone consumer perceived smartphone as both useful and fun functions of more than 100, 000 applications that are available in their smartphones application. On top of that, use of internet is no longer stationary and require computer, it happens on the go with smartphone (Euromonitor, 2010). The source added that in the developing world, majority people are starting to go online using their smartphone rather than personal computer.

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In Malaysia, mobile phones have seen a growth of 14 percent to record of RM2.6 billion in sales in 2010 (Euromonitor, 2011). The source added that smartphone has increase 50 percent in volume of sales over the normal mobile phones and featured phones. This shows that Malaysian is slowly switching their normal mobile phones to smartphone. Table 1.0 below shows the growth of Malaysia smartphone industry compare with feature phone. From the table it signifies that the smartphone sales are booming up in Malaysia market. Slowly it will take over the normal mobile phone or the features phones sales. Euromonitor (2011) added even though the smartphone stands a higher price than the normal phones, but the telecommunication operator made it possible for people to own it through monthly subscription packages which made the phone price cheaper and lead to the affordability of smartphone among Malaysian.

Table 1.0: Sales of Mobile Phone in Malaysia (RM million)

Types	2005	2006	2007	2008	2009	2010
*Feature Phone	1, 584.7	1, 435.6	1, 157.1	1, 366.0	913.1	821.7
Smartphone	-	218.2	629.0	1,189.0	1,412.0	1,821.5
Total Sales	1,584.7	1,653.8	1,786.1	2,555.0	2,325.1	2,643.2

Source: Euromonitor, 2011
*Feature phone is phone has only one specific focus feature eg, MP3 phones, 3G phone and etc

Smartphone has gained popularity and increased demand over the years (Park and Chen, 2007). This global phenomenon happens in all parts of the world. In Japan, smartphone sales accounted for 23.3 million units in 2011 which is 56 percent of the total mobile phones' sale (Murakami, 2011). Murakami (2011) added that this new fast spreading lifestyle had caused one out of 12 Japanese, including babies hook up with the smartphone nowadays. Euromonitor (2011) had showed that smartphone in Malaysia had grown tremendously since year 2006. In fact, smartphone industry is a new emerging industry; the fast growing sales of smartphone has become an important issue among the manufacturer as well as the retailers and dealers of smartphone.

The increase competition among the giant manufactures namely Samsung, Nokia, Apple, HTC and Blackberry are moving fast to produce better smartphone and strategies to obtain more market share in the world. In Malaysia, foreign brand like Nokia and Samsung are the top 2 choice of mobile phones and smartphones. As a result, domestic companies were largely outdone by these international brands in terms of innovation and resources (Euromonitor, 2011). Sales of foreign smartphone phone brand are doing so well in Malaysia. One of the known local Malaysia smartphones manufacturer is CSL Group's where they manufacture smartphone and features phone that similar to the global giant brands. However, these local brands were largely outplayed by the foreign brand. Hence, understanding the consumer dependency on smartphone is benefitial for the local manufacturer to grab part of the local market share as the industry is growing.

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Today, it is clear that consumer have slowly become dependent towards smartphone. People waiting for train, bus, and airplane or waiting for queue they all have their smartphone in their palm to pass time. Some even on a coffee table gathering with friends keep browsing social website to update their status. Lim, Wong, Zolkepli and Rashvinjeet (2012) reported that there are even such trend that youngster today sit around for dinner but none of them are talking but instead had their eyes glued to their hand phone texting or surfing. On top of that, smartphone with great camera features have even made consumer to prefer and dependent on smartphone camera due to its convenience. A smartphone enable to install application which varies from social networking apps, gaming, work or information apps were available. This makes smartphone to be so smart that it can do most of the computing on the go.

1.2 Problem Statement

Smartphone industry in Malaysia is a billion ringgit market, and if one could grab about 20 percent of the market share would be getting millions of ringgit in revenue. On top of that, consumer dependency on smartphone had proofed their trust, attachment, confident and satisfaction towards the smartphone usage. As a result, it is important for us to understand the underlying causes and outcome behind of such a phenomenon, of smartphone dependency in order to sustain sales of smartphone and its market share.

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There are lots of previous studies had done on the mobile phone in general but not many specifically on smartphone dependency. Wei (2008) showed the usage of mobile of residents in the United State for mass communication and entertainment purposes. On the other hand, Haverilla (2011) reported the important features of a mobile phone in general for people in Finland for repurchase intention. Tseng and Lo (2011) showed the consumers intention in Taiwan to upgrade their mobile phones. Chen and Katz (2009) reported that college student utilized mobile phone to have more frequent contact with their parents. Balakrishnan and Raj (2012) showed different mobile phone usage among male and female and reported that brand, trend and price as the important purchasing factors of mobile phones among the youth in Malaysia. In the research

on smartphone by Park and Chen (2007) reported that the intention of people to use smartphone was largely influenced by their perceived usefulness and their attitude towards smartphone. Osman *et al.,* (2011) reported that male had higher acceptance towards the various mobile content compared to female, and the findings were more on the application download of the smartphone usage.

Despite the previous studies done, not many researches have been done on the dependency of smartphone and what are its antecedents and outcome. Few of them had studied about the dependency of smartphone and its outcome of purchase behavior especially on the local market and on the population as a whole. A research done by Ting, Lim, Patanmacia, Low and Ker (2011) showed that student future purchase behaviors of smartphone are positively related to the dependency to their smartphone. However, the research limits only to university student whom does not has a monthly income and it does not represent the population or the society as a whole. Added to that, the study was done in universities located in the metropolitan city of Kuala Lumpur. It is important of us to know the dependency of smartphone in a different context such as the society as a whole which include the working adult in a different city of Malaysia as culture and geographic factor would lead to different antecedents and outcome. This is why this research comes in to look into the smartphone dependency on consumer in the city of Kota Kinabalu (where less develop than the metropolitan city) and among the people in the city without specify to only specific group.

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The theory of uses and gratification suggested factors that motivate one to use a media which in this context of our study is smartphone. On the other hand, theory of media dependency explains dependency and its outcome. Hence, through the theories, this study is to look into the dependency on smartphone of people in Kota Kinabalu and their purchase behavior. This study aim to answer the problem, "What are the antecedents and outcome of smartphone dependency on smartphone user in Kota Kinabalu."

1.3 Research Question

Based on the problem and issue arise regarding smartphone, hence, this research will aim to answer the following questions:

1) What is the relationship between entertainment of smartphone and dependency towards smartphone?
2) What is the relationship between convenience of smartphone and dependency towards smartphone?
3) What is the relationship between social needs on smartphone and dependency towards smartphone?
4) What is the relationship between social influence on smartphone and dependency towards smartphone?
5) What is the relationship between dependency of smartphone with purchase behavior?

1.4 Objective of the study

Smartphone has slowly emerged in Malaysia. This growing trend and demand of smartphone has been an important issue for marketer and retailers. Many people had switch to smartphone from their conventional phone. Smartphone manufacturer come out with different version of smartphone to make it affordable to most of the people. With the packages offer by local telecommunication company as well had made this smartphone more affordable. This research will aim to achieve the following objectives:

1) To determine the relationship between entertainment of smartphone with dependency on smartphone.
2) To determine the relationship between convenience of smartphone with dependency on smartphone.
3) To determine the relationship between social needs on smartphone with dependency on smartphone.
4) To determine the relationship between social influence on smartphones with dependency on smartphone.
5) To determine the relationship between dependency on smartphone with purchase behavior.

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1.5 Significant of the study

Various sources have shown the growing demand of the smartphone industry. Sales hike dramatically in various nation and various manufacturers of smartphone companies. Loh (2011) reported that smartphone users in Malaysia are growing exponentially rising from 48% to 89%. On top of that, Malaysia aim of digital economy by 2020, smartphone plays an important role and government and telco company should coorperate to ensure the country has sufficient infrastructure and network capacity (Loh, 2011). This smartphone industry have proven to be an important market in the mobile industry. Through this study the future purchase behavior of consumer of Kota Kinabalu and factors that lead to their dependency of the smartphone will be known.

This is important as knowing consumer dependency on their smartphone will benefit the local marketers or smartphone dealers to sell their smartphone product. Balakrishnan and Raj (2012) reported that the various benefits of mobile phones cause majority of the youth are extremely attached to their mobile phones. As Ting *et al.*, (2011) shows a positive relationship among purchase behavior and dependency, knowing the factors that lead to dependency of smartphone can help local marketers and dealers in Kota Kinabalu effectively towards increase their smartphone sales. It helps the promotion of the smartphone as well as the advertising of smartphone to be more effective locally. Marketer can tackle on the important factors of local Kota Kinabalu people's dependency on the smartphone in which will indirectly lead to their future purchase behavior. Newspapers, posters, as well as banner can specifically design to enhance the influence of the dependency of local smartphone user which will lead to future purchase behavior.

On top of that, this study will benefit the Malaysia mobile phone manufacturers, CSL groups and DMD Sdn Bhd (Huzaini, 2012).Through this, it able to help the local manufactures of mobile phones in designing their smartphone to grab a market share in the market to stay competitive with their strong foreign competitor. By understanding the local people's dependency factors on smartphone, manufacturer can design smartphone that specific suit the needs of people locally which will in turn affect their future purchase behavior.

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1.6 Scope of the study

Different from the previous study done by Ting *et al.,* (2011) that focus only of University Student in Kuala Lumpur, this study will be a cross-sectional study which focuses on the population in Kota Kinabalu in general. The evaluation and measurement of this study espoused from previous research on related study. This study will look into people that own a smartphone in Kota Kinabalu. As a result, this study will focus on anyone live in Kota Kinabalu that own a smartphones. A series of questionnaire will be distributed to people around Kota Kinabalu randomly using the convenient non-probability random sampling. Questionnaires will only be distributed to people who owned a smartphone. In order to effectively target people who use smartphone 6 location are targeted to be sampling point; 1Borneo shopping mall, CityMall Kota Kinabalu, Centre Point Kota Kinabalu and Karamusing Kota Kinabalu.

1.7 Definition of Variables

1.7.1 Entertainment

Entertainment in this research is defined as something to be enjoyable and fun that give pleasure and relaxed users as well to help them to pass the time (Leung, 2007).

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1.7.2 Convenient

Convenient in this research is defined as time saving and usefulness of usage on smartphone. The usefulness is refering to in performing part of the PC task and time saving to complete task quickly (Ting *et al.,* 2011).

1.7.3 Social Need

It refers to as users of smartphone to fulfill their social need to communicate and stay connected with others (Ting *et al.,* 2011).

1.7.4 Social Influence

Social influence in this research is being conceptualized to be the way other people or environment will affect one's belief or behavior (Weber and Villebonne, 2002).

1.7.5 Dependency

In this research context, dependency is defined as having the propensity of high usage, being engage and unwilling to be apart from it (Ting *et al.,* 2011).

1.7.6 Purchase Behavior (Continuous Purchase)

Purchase behavior in this research context is conceptualized as satisfy with the usage and has a behavior intention for future repurchase or repeat purchase and use of smartphone(Ting *et al.,* 2011).

1.8 Outline of this study

This study will be presented in 5 chapters. The first chapter will be a brief introduction and overview of the study. Chapter 2 will be describing the previous study that people hand done and the basic theory behind this study to support the significant of this study. Hypotheses will be formed in this chapter as well. Chapter 3 will mainly discuss about the formation of theoretical framework and research design. Chapter 4 will be the research result finding and analysis using different testes in SPSS. Chapter 5 will concentrate on the discussion and research finding together with the implication and limitation of the research done then a conclusion will be presented in the last part of chapter 5.

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