

Investigating the Perceived Innovation Attributes, Toward Online Shopping in Malaysia

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ABSTRACT

At this era of Internet, our daily lives are increasingly overshadowed by information technologies (ITs), when most of us are engaged in Internet shopping as a daily activity. Despite of a huge body of studies well done in developed countries; just few researches have been conducted on cognitive factors affecting consumer online shopping behaviour in developing countries context. The study intended to consider the result of the perceived attributes of innovation namely compatibility, relative advantage and complexity on Internet' use of online shopping and subjective norm. To do this, structural equation modelling was employed to investigate the causal relationships between perceived attributes of innovation, the attitude of user toward using online purchasing. The result of analysis on a total 375 student samples revealed that relative advantage, compatibility and subjective norms significantly affect the attitude toward using online shopping, while regarding complexity the effect was not significant.

Keywords: online shopping, attribute of innovation, subjective norm, attitude

INTRODUCTION

It is so crucial to marketers to understand buying behaviour and factors affecting purchasing when developing marketing strategies. There is an argument for this statement saying that to adjust the more effective marketing strategies, marketers need to understand the factors affecting the purchase decision. This relationship is well-understood by researchers who spent their time and efforts on understanding and developing a strong body of literature on consumer behaviour. As a means of communication and shopping, Internet has involved in the challenge of understanding this behaviour. Furthermore, the way of doing business and communication with customers have been also changed by Internet. In the Internet era, consumer has been approved to be an active user and most times a co-producer of information, while in traditional forms of marketing consumers were shown passive recipients of information (Huang & Chuang, 2007).

Internet has provided marketers with accessibility to more, larger and far-reaching segments which were unknown and inaccessible. It is generally accepted by both marketers and consumers that according to extant information worldwide business-to-consumer e-commerce sales will amount more than \$1.25 trillion in 2013 (IMRG, 2012). This research is particularly interested in investigating the facilitators and barriers to use Internet for purchase purpose (Andrews, Drennan, Boyle, & Werawardeena, 2007). But, there are few studies which focus on the factors affecting the use of internet for commerce in Malaysian context (Delafooz, Paim, & Khatibi, 2010).

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Consumer researchers have paid considerable attention to consumer adoption of innovation which has been more often used as a determinant of any diffusion of innovations. According to classic studies of innovation literature, there is a relationship between innovation adoption and the attributes of the innovation as perceived by potential adopters (Rogers, 1993). It is possible to describe any innovation with the following characteristics: relative advantage, compatibility, complexity, trialability (costs), and observability (communicability).

LITERATURE REVIEW

Shopping is not a single action but a process in which a series of various components joined together in a certain sequence (San, Jun, Ling, & Hock, 2010), including shopping mode choice. Desire, information gathering/receiving, selection, evaluation, transaction, delivery/possession, trial/experience, display/use, and return are included as the typical elements of the shopping process (Sabri et al., 2008), where shopping mode choice may affect any element of the shopping process (Hsu & Lin, 2008). Using electronic means, the new mode of shopping namely online shopping makes purchases/sales at virtual stores. (Lopez-Nicolas & Molina-Castillo, 2008). Many factors are involved in the increased adoption of online shopping. It is a modern technology; hence the ideas driven by the Innovation Diffusion Theory (Rogers, 2003) may contribute to better understand the adoption of this modern technology (Peterson, Balasubramanian, & Bronnenberg, 1997). The study uses Diffusion theory, because online shopping is viewed as an innovation in the geographical area selected by the research. It also applies theory of reasoned action through introduction of subjective norm as a significant factor for the effect of online shopping.

The Innovations Diffusion Theory (IDT), one of most worldwide applicable theories to explain technological innovation, primarily developed by Everett Rogers in 2003 (Huang & Chuang, 2007). In his theory, Rogers (1995) suggests five characteristics for innovation, consisting of perceived Complexity, Perceived Compatibility, Perceived Relative Advantages, Trialability and visibility

ATTITUDE TOWARDS ONLINE SHOPPING

As indicated in TRA, intentions are resulted from attitudes towards behaviours outcomes (Fishbein & Ajzen, 1975). Due to wide range of extant definitions and measures, in a seminal work, Fishbein and Ajzen (1975) attempt to discuss the confusion and ambiguity related to attitude concept. Apparently, there was a widespread agreement that affect which refers to a person's feelings towards a person, object, issue or event, must be definitely considered as a most substantial part of attitude concept (Fishbein & Ajzen, 1975). Accordingly, positive attitudes are expected to lead to higher intentions for performance of the behaviour.

As defined by Fishbein and Ajzen's (1975), in the current research attitude refers to the strength of a person's feeling, whether favourable or unfavourable, towards the purchase of travel online.

The extant studies on online purchasing have revealed that attitude towards online shopping has positive effect on intentions to purchase through online shopping (Lallmahamood, 2007; Morosan & Jeong, 2008). In these studies, attitude was approved to be a key predictor for intentions to use the Internet for purchasing purpose (Hernández, Jimenez, & Martin, 2010; Leonard, Cronan, & Kreie, 2004; Tsai, Cheng, & Chen, 2011) or for adopting e-commerce (Shimp & Kavas, 1984; Venkatesh & Davis, 2000).

Compatibility

By operational definition, compatibility refers to the extent to which an innovation is perceived as compatible with past experiences, extant values, and the needs of potential adopters. The idea that is more compatible is less uncertain to the potential adopter and fits more closely with the situation of individual. By giving meaning to new ideas, compatibility helps the new idea to be more familiar (Rogers, 2003).

The rate of adoption can be accelerated or retarded by the compatibility of an innovation with a preceding idea. Just on the basis of the familiarity, an individual can deal with innovation. The perceived compatibility of a new idea with the previous experience of potential adopters causes users to use the innovations correctly (Garcia & Calantone, 2002; Rogers, 2003).

According to Vijayarathy's (2000) definition, in the study, compatibility to online shopping refers to the degree to which consumers believe the online purchasing is matched with their lifestyle and needs, and their shopping preference as well. There is evidence suggesting that compatibility positively and significantly relates to attitude towards online shopping (Chen, Gillenson, & Sherrell, 2002; Vijayarathy, 2004). Expectedly, those who spent a huge amount of their time in their daily life and job on the Internet and other related technologies, more probably do online shopping. It is assumed that there will be a positive relationship between individuals' perceived compatibility with online shopping and attitude towards online.

Accordingly, the perceived relative advantages of online shopping have effect on intentions to purchase online (Flick, 2009; Kim, Kim, & Shin 2009) and on adoption of online shopping (Heung, 2003; Jensen, 2009; Kamarulzaman, 2007; Morrison et al., 2001). Thus, according to above arguments, the following hypothesis is developed: Perceived relative advantages of online shopping will positively relate to intentions to purchase online.

Complexity

In literature, complexity means the extent to which an innovation is perceived relatively difficult to comprehend and or use. Based on the complexity-simplicity continuum, the new idea can be classified. Some innovations convey clear meanings to their possible adopters, while some do not (Rogers, 2003). It is important to mention, for many innovations relative advantage or compatibility are more important than complexity, while for others complexity is found to be very important barrier to adoption (Davis, 1989; Rogers, 2003).

Again according to TRA, the model also includes subjective norms. Subjective norms are integrated to examine how important referents affect an individual's purchase behaviour. In simple words, it is included in the model to investigate the effect of important referents on an individual's purchase behaviour (Athiyaman, 2002; Cao & Mokhtarian, 2005; Chang, 1998; Venkatesh, Morris, Davis, & Davis, 2003). But Tang (2011) holds that although TPB is widely accepted, the relationship between attitude and the subjective norm is still questionable. He added the TPB was criticized by Miniard and Cohen (1983), because it lacked a clear theoretical discussion for this relationship. Following this criticism, Ryan (1982) suggested that normative beliefs affect attitude towards information, because the form of attitude can be based on the information obtained from an expert referent or expected by other important people. As a result, of the purpose of this study is to examine the effect of subjective norm on attitude. Furthermore, there is rare study to examine potential relationships between attitudes, subjective norms and perceived behavioural control, although the associations between these variables are found to be high, particularly, regarding attitude and subjective norms (Quintal, Lee, & Soutar, 2010). According to research relative advantage is the significant influence on acceptance of technology (Chang, Cheung, & Lai,

2005; Chau & Hwa, 2001; Cooper & Zmud, 1990). It also enhances consumer's attitude towards online shopping (Forsythe, Chuanlan, Shannon, & Gardner, 2006).

METHODOLOGY

The study used survey questionnaire based on existing measures gathered from literature. For the attributes of using the Internet for purchasing which include relative advantage, compatibility and complexity are taken from items developed by Andrews et al. (2007). 5-point Likert-type scale was applied to measure any attribute.

For subjective norms, nine items were used according to Taylor and Todd (1995). Ten items were employed to measure attitude. Using cluster sampling method, 375 samples from universities located in Klang Valley participated in this study. The collected data were analysed, using appropriate Structural Equation Model with AMOS 16.

THE MEASUREMENT MODEL RESULT

Using structural equation modelling with AMOS 16 for data analysis, the study tests theorized hypotheses and the purposed model. According to SEM analysis, it had a good model fit (Chi-square/degrees of freedom=1.60, GFI=.90, TLI=.95, CFI=.97, and RMSEA=.04). Alpha reliability, AVE, correlations, and CFA analyses were employed and the tests of reliability and validity of the construct measures were conducted. To evaluate discriminant validity, according to Baron and Kenny (1986) AVE scores were compared with the shared variance of each construct and with all other constructs. According to the analysis, most AVEs of the constructs in the model are indicated to be higher than the shared variance of the construct with all other constructs in the model. Therefore, for all variables, the discriminant validity was confirmed.

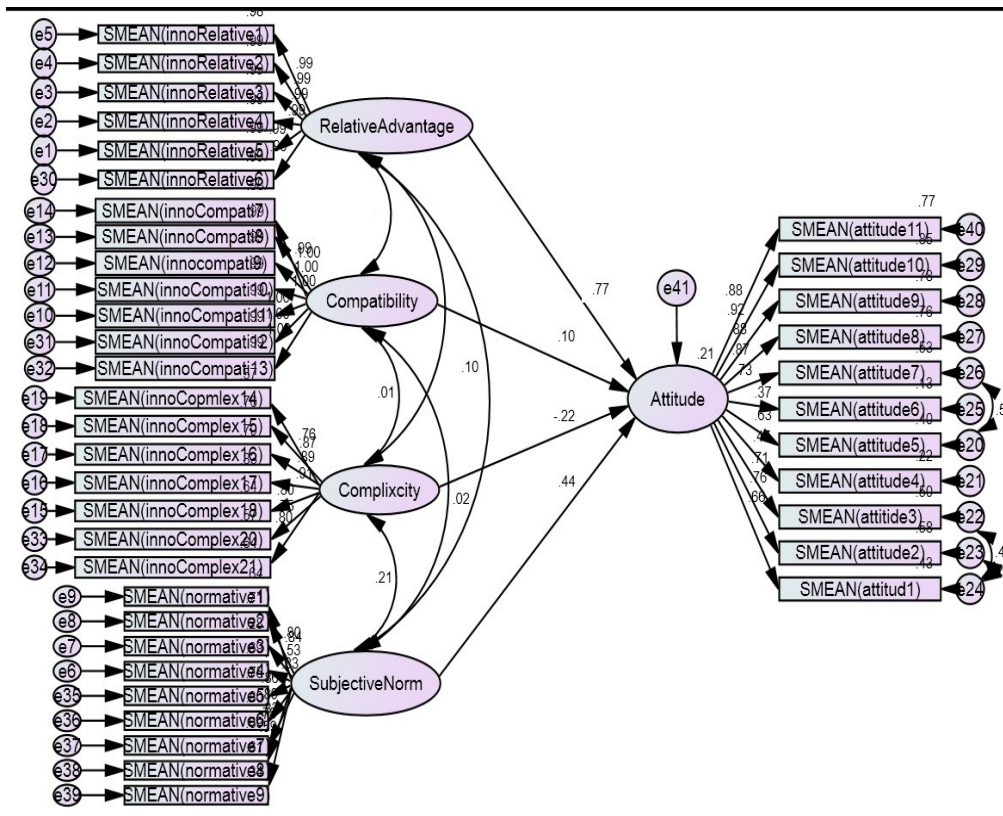


Figure 1. Structural Model

Four hypotheses purposed by the study are shown to be significant. Hypothesis 1, suggesting that relative advantage on the Internet influences attitude toward purchase on the Internet, is supported ($\beta=.77$, $p<.01$). Hypotheses 2 and 4 suggesting that compatibility ($\beta=.10$, $p=.01$), and subjective norm ($\beta=.44$, $p=.01$) influence attitude, are also supported. Hypothesis 3 suggesting that complexity has no influence on attitude towards keeping purchasing on the Internet, is not supported for perceived risk ($\beta=-.22$, $p=.43$). In sum, the model suggests that attitude is influenced by three factors namely compatibility, relative advantage and subjective norm.

DISCUSSION

To accept the hypothesis means that consumers' online buying behaviour is more probably affected by the opinions of friends and peers. Besides, subjective norm items with a mean score more than 4 shows respondents have positive tendency towards online purchase, if they have their friends' opinion on goods/services or if they see them doing shopping online.

The result of this research is consistent with studies previously done by Gopi (2007) and Chang (1998) where friends, peers, relatives and media, as the important factors affect the online shopping behaviour. It is not compliant with some others for instance Wang et.al (2007) where subjective norm is not important. Going to market place for shopping together is of people's interest. They value other's opinion. The results indicate that the relative advantage of an innovation influences the attitude to use, but for complexity no effect was found. The relative advantages effect on the attitude to use reflects some studies' results (Eriksson, Kerem, & Nilsson, 2008; Joo, Lim, & Lim, 2014; Taylor & Todd, 1995).

The results of current study also suggest individuals are likely more interested to change their shopping behaviour from traditional to online shopping, if there is compatibility between internet shopping characteristics and their purpose for using the internet. It is also found that those who use internet for other purposes like work or teamwork and financial transactions and banking operations have more tendencies to use internet shopping. However, vendors need to provide some facilities for internet to make it more appropriate and convenient for customer's work style; online shopping treatment; and business requirements to amplify the internet shopping characteristics' compatibility.

CONCLUSION

Current study designed to examine the adoption of online shopping and the factors which affect the adoption through ideas driven from diffusion theory. The results revealed that all the independent variables, Relative advantage, Compatibility and Subjective Norm, are positively related to the dependent variable namely online shopping, while for complexity is not significant.

IMPLICATION

Present paper state that an innovation cannot replace traditional technologies unless it can afford better satisfied, greater technical benefits, and cost efficiency to consumers. All factors predicted by the present research are relative and supposedly may help both marketers and advertisers to enhance their capabilities in finding effective ways to pursued consumers to shop more on the Internet. In addition, online store are obliged to design websites with contents more congruent with the way people traditionally handled their needs, such as language and consistency according to users past beliefs and experiences. In other words, the new experience should be viewed by consumers as more helpful in compared with the traditional ones. In view of consumer, they will be aware of many advantages that online

purchasing may bring with including convenience (energy- and time-saving), more options to select, cheaper price and more accessibility to product information before purchasing it. The research can provide consumers with more information about how e-commerce has been so important in the modern information technology setting. According to the results of the effect of subjective norms on behaviour of online shopping, retailers are advised to use the word-of-mouth marketing more than ever so that their websites will be better known to more customers. The method suggested by this study may be one of the most effective one which so far have been available and applicable for advertising purpose.

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