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Habit as a moderator of the association of utilitarian motivation and hedonic motivation with purchase intention: Implications for social networking websites

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Abstract
The role of social media as a marketing platform has become increasingly important as the number of retailers targeting young adults through social networking sites (SNSs) has grown, making these platforms central to their marketing strategies. A cross-sectional survey was conducted utilizing a self-administered questionnaire for testing the hypothesized research model. The sample group for the research comprised of 370 undergraduate and graduate students selected from four Malaysian universities through cluster sampling. The results revealed that consumer intention was positively affected by utilitarian motivation, hedonic motivation, habit, and trust in SNSs. Multi-group analysis on the effect of usage habit as a moderating variable on the relationships between selected factors and the intention to purchase through SNSs revealed moderating effects of usage habit impacting relationships between utilitarian motivation and purchase intention (low habit usage $\beta = .265$) as compared to high habit usage of ($\beta = .052$). The theoretical and practical implications of the findings are offered, suggesting that marketing and online advertising strategists should be aware of the behaviour of online shoppers when planning online marketing campaigns for SNSs.

Keywords: social networking sites (SNSs), utilitarian motivation, hedonic motivation, habit, and purchase intention

Introduction
Since its inception, the predominant activities engaged in on the Internet have been creating, processing and sharing information. The Internet has been effectively utilized to achieve productivity-oriented individual and organizational objectives in connection with entertainment, education, advertising, and marketing (Guo, Wang, & Leskovec, 2011;
Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Social media have turned into a new hybrid component of integrated marketing communications (IMC) in recent years that allow associations to start strong connections with their customers (Mangold & Faulds 2009). Social media allows users to form groups or communities, share common interests or goals, exchange opinions or suggestions, and form relationships with other users on such platforms (Akar & Topçu, 2011). There have been many definitions of social media Kaplan and Haenlein (2010) offer a brief definition of social media as, “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (p. 61). Carr and Hayes (2015) defined social media as “Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others”. Feng, Zhang, & Lin, (2019) recently defined social media as online community-based platforms that enable people to engage in networking, messaging, and/or creating (e.g., posting, tweeting, blogging), tagging, exchanging, evaluating (e.g., liking, commenting, voting, rating), and sharing content”. Their definition contains many features of social media applications such as SNSs.

Online purchasing has consistently been a highly prevalent socio-economic activity performed through the Internet. Consumers have consistently experienced higher levels of efficiency and responsiveness, businesses have enjoyed lower operational costs, and new entrepreneurs have been able to extend the reach of their businesses further than was possible before the advent of the Internet and the technology for online business transactions was available. Furthermore, online retail benefits consumers with a more diverse variety of available consumer goods, specialized products, comprehensive product information, lower costs, and more responsive services (Guo et al., 2011; Rachagan, 1997). These developments are indicative of the possibilities made available through the implementation of the Web 2.0 platform, which has enabled global instant communication, enhancing the ability to effectively share information from any location, quickly and at low costs.

The significance of recent developments in online retail marketing is exemplified by the estimated $2.69 billion in sales reportedly earned directly through social media networks by 500 online vendors in 2013 (Dusto, 2014). Many social networking sites (SNSs) offer ad units on a regular basis that can be used by vendors to target consumers with their marketing content, which has resulted in continued increases in ad spending. Marketers increased spending for ads on social networking platforms by 37.3% in 2013 and 27.3% in 2014, while it was estimated that this spending increased by 25.4% in 2015 (Dusto, 2014). The total worldwide sales for e-commerce vendors was estimated to have been $1.7 trillion for the year 2015 (e-Marketers, 2014).
As Malaysia has the goal of establishing a significant e-commerce/digital economy by the year 2020, the factors influencing individual consumers’ online purchasing behaviour have been investigated in past research (Chin, Wafa, & Ooi, 2009; Delafrooz, Paim, & Khatibi, 2010; Haque, Sadeghzadeh, & Khatibi, 2011), focusing mostly on rather conventional methods of e-commerce. Research done in Malaysia has not typically explored factors that affect consumer purchases through SNSs in spite of the continued increase in shopping via SNSs (Khong, Onyemeh, & Chong, 2013; Lee, Khong, & Hong, 2014; Sharifi fard, Tamam, Hj Hassan, Waheed, & Zaremohzzabieh, 2016).

Previous research has found that online shopping habits may be effective in determining online purchasing intentions (Khalifa & Liu, 2007). The moderating effect of habit on the relationship between repeat purchase intention and trust has been explored through empirical analyses (Chiu, Hsu, Lai, & Chang, 2012; Hsu, Chang, & Chuang, 2015). In consideration of the important relationship between online purchasing behaviour and e-commerce development, the Extended Unified Theory of Acceptance and Use of Technology (UTAUT2) was adopted as the theoretical model for this study and was modified by adding factors associated with SNS purchasing intentions, including trust in SNSs. The UTAUT2 postulates that the intention to use technology and the subsequent use of it are influenced by habit. However, few studies have been conducted on habit or similar related factors as influencing constructs in relation to technology use in Malaysia. Previous research has found that user acceptance of new information technology may be influenced by hedonic and utilitarian motivation (Davis & Venkatesh, 2004; Escobar-Rodríguez & Carvajal-Trujillo, 2013; Kim & Malhotra, 2005; Kim, Malhotra, & Narasimuthu, 2005; Limayem, Hirt, & Cheung, 2007; Venkatesh, Thong, & Xu, 2012; Wang, Park, Chung, & Choi, 2014; Baptista, & Oliveira, 2015); therefore, this study includes habit in the UTAUT2 to determine if this factor has moderating effects on the relationship between purchase intention and its determinants.

The exploration of the factors identified as motivating consumer SNS behaviour may inform academics and practitioners on possible methods for the promotion of customer repeat purchase intention. In line with the above theoretical bases, this study hypothesizes that performance expectancy (considered a utilitarian motivation in the research), hedonic motivation, and habit are associated with consumers’ online purchase intentions.

**Literature Review**

Previous research has provided various conceptual models on the antecedents of technology adoption and use. The Diffusion of Innovation Theory (Rogers, 1983) was one of the first of these frameworks, which was intended for investigating the characteristics of innovation influencing technology adoption. The Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), holds that the main predictor of human behaviour is behavioural intention. The TRA was subsequently extended with the technology acceptance model (TAM) (Davis, Bagozzi, & Warshaw, 1989), which is concerned with technology acceptance and use within organizations, and the theory of planned behaviour (TPB) (Ajzen, 1991), which includes additional variables related to users’ internal control (perceived behavioural control). The motivational model (MM) developed by Davis, Bagozzi, and Warshaw (1992) was used to
examine motivations explaining user behaviour.

In order to provide an integrated theoretical perspective, Venkatesh, Morris, Davis, and Davis (2003) created the unified theory of acceptance and use of technology (UTAUT), which combines the previous acceptance models. The UTAUT identifies effort expectancy, performance expectancy, social influence, and facilitating conditions as factors influencing acceptance and use behaviour, and the moderating effects of gender, age, experience, and voluntariness on the adoption process are also considered.

The UTAUT2 is a revised version of the UTAUT adapted by Venkatesh, Thong, and Xu (2012) for research on consumer services, which includes three additional factors: hedonic motivations, cost, and habit (Figure.1). Although few studies have referred to the UTAUT2, research has validated the influence of hedonic motivations on purchase intention using enjoyment as a similar factor (Ha & Stoel, 2009). Although the inclusion of habit as a factor affecting purchase intention in the UTAUT2 has been regarded as problematic, Venkatesh et al. (2012) found support for this in research conducted by Limayem, Hirt, and Cheung (2007). Limayem et al. (2007), however, described habit as not directly producing an effect on behaviour, but rather as having a complex, moderating role in the relationship between intention and actual behaviour. Similarly, regarding online shopping behaviour, the UTAUT2 does not include the variable price value, which is because a clear, specific cost is not implicated in the use of e-commerce facilities. This is because consumers consider Internet access as inclusive of e-commerce facilities and, therefore, online shopping does not involve any additional cost (Yu, 2012). It is also important to note that previous research has validated the variables included in the UTAUT as well as perceived risk (Lin, Wang, & Hwang, 2010; Pavlou, 2003) and perceived trust (Chang, 2010; Chen & Dhillon, 2003) as predictors of online purchase intention.

The UTAUT2 model was further extended by Escobar-Rodríguez and Carvajal-Trujillo (2014) in the investigation of the purchase and use of airline tickets with the inclusion of innovation in new technology, trust with three dimensions of perceived security, perceived privacy, and information quality constructs. Their study’s findings for that context indicated that online purchase intention was most strongly predicted by the effect of consumer trust. It may thus be concluded from these results that when consumers trust a website, they have a stronger intention to purchase from that website. The most important factors related to online shopping from the UTAUT2 were online purchase intentions, habit, and effort expectancy, while the facilitating condition variable was not found to be a predictor of technology acceptance. Similarly, Pascual-Miguel, Agudo-Peregrina, and Chaparro-Peláez (2015) conducted a study that examined gender differences in purchasing behaviour among consumers who purchased digital and non-digital merchandise. Employing empirical methods, the authors added the perceived risk and trust e-commerce variables to the UTAUT2. The study found four significant predictors of purchase intention for male shoppers: facilitating conditions, performance expectancy, perceived trust, and perceived risk. The study also examined the differences in the results with regard to purchases of digital and non-digital product types, finding smaller gender differences between purchases of digital and non-digital goods, which contrasted with results from early e-commerce studies.
A final consideration in applying the UTAUT2 model is that habit with regard to technology has not been explored as a moderating variable although a few studies found habit to have such a moderating effect in the e-commerce context (Chiu, Hsu, Lai, & Chang, 2012). Verplanken et al. (1997) described the moderating role of habit as being manifested through ‘learned sequences of acts that have become automatic responses to specific situations, which may be functional in obtaining certain goals or end states’ (p. 539). Khalifa and Liu (2007) defined habit as a behavioural tendency resulting from previous experience. Habit was also defined by Hsu et al. (2015) in their research in the online shopping context as ‘an automatic behavioural reaction that is stimulated by a condition/environment cause without a thinking or conscious mental process due to the cumulative past experience connection between the shopping behaviour and satisfactory results’ (p. 49). Chiu et al. (2012) found that habit and intention are related to purchase intention and subsumed them under two categories: habit directly affecting the intention to purchase online and habit as a moderating variable influencing the relationship between purchase intention and its determinants.

Since previous studies have empirically tested the direct influence of habit on online purchase intention (e.g., Chiu et al., 2012; Khalifa & Liu, 2007), this study focuses on the moderating role of habit under the assumption that investigating changes in the influence of the antecedents of purchase intention may explain the role of habit in the contexts being considered (Khalifa & Liu, 2007). Although Hsu et al. (2015) reported habit as moderating the effects of trust and satisfaction on intention to purchase, this does not necessarily imply that intention to purchase will result from consumer satisfaction without the formation of the online shopping habit (Khalifa & Liu, 2007). The effect of satisfaction on customer loyalty is lowered by habit (Anderson & Srinivasan, 2003); therefore, the influences of the antecedents of online purchase intention could depend on the formation of the online shopping habit (Khalifa & Liu, 2007).

The version of the UTAUT2 adapted for the present study incorporates the factors discussed above into a single model (Figure 2).

**Research Hypotheses**

The seven research hypotheses developed for this study are as follows:

H1: Utilitarian motivation (PE) has a significant positive relationship with purchase intention (PI) through SNSs.

H2: Hedonic motivation (EE) has a significant positive relationship with purchase intention (PI) through SNSs.

H3: Trust to SNSs (SI) has a significant positive relationship with purchase intention (PI) through SNSs.

H4: Habit (HAB) has a significant positive relationship with purchase intention (PI) through SNSs.
H5: Habit moderates the relationship between utilitarian motivation and purchase intention through SNSs.

H6: Habit moderates the relationship between hedonic motivation and purchase intention through SNSs.

H7: Habit moderates the relationship between trust in SNSs and purchase intention through SNSs.

Methodology
The survey was conducted among students who were studying in universities in the Klang Valley, Malaysia. These students were considered appropriate as samples for the study as the Malaysian university student population is known for their high usage of technology and particularly for their SNS activity and attitudes toward online shopping (Sharifi fard et al., 2016). The multistage cluster sampling method was employed to select students from four Malaysian universities (two public and two private universities). The questionnaire respondents comprised 370 students out of the 434 initially surveyed. This was more than sufficient for the sample size for the structural equation modelling used in the subsequent data analysis as the sample is recommended to comprise at least 200 subjects to avoid convergence failure and inappropriate solution problems (Kline, 2005). Thus, the utilization of a respondent-driven method of sample selection provided an adequate sample size for the methodological requirements of the study.

The survey questionnaire comprised 27 items adapted from the UTAUT and UTAUT2, studies on the adoption of e-commerce and other theories relevant to the research parameters (Table 1). Measurements of the adapted constructs were obtained through multi-item responses in seven-point Likert-scale format ranging from 1 (strongly disagree) to 7 (strongly agree).

Analysis of the obtained data relied on structural equation modelling (SEM). Measurement modelling for the study was accomplished through several statistical procedures, including confirmatory factor analysis (CFA) and goodness-of-fit tests as well as assessment of construct validity, convergent validity, and discriminant validity. The analytical procedures and their results are discussed in detail in the following section along with the resultant structural model and overall moderating model of the study.

Results
Measurement Model
The first step in structural equation modelling (SEM), confirmatory factor analysis (CFA), is used in the preparation of data to access the measurement instrument’s validity by testing the relationships between latent variables and observed measures, thus focussing on the relationships between constructs and their latent variables. According to Byrne (2010), the second step in SEM analysis is measurement modelling, which is used to discover the relationships between latent variables and their observed measures obtained through CFA (Byrne, 2010). The measurement model comprises the rules explaining the measurement of
latent variables based on the observed variables, including the measurement properties of the observed variables (Ho, 2006). The measurement model, therefore, explains the links between the latent and observed variables. The degree to which the proposed model predicts (fits) the observed covariance matrix is determined by goodness-of-fit indices (Ho, 2006). These fit indices include several absolute fit indices, such as Chi-square/CMIN (with value > 0.05), GFI (with value > 0.9), RAMSE (with value < 0.08), and RMR incremental fit indices, such as CFI, TLI and IFI (with values > 0.9).

The measurement model for this study is presented in Figure 3, which was produced following adjustments to the first- and second-order confirmatory factor analyses (CFAs). The model perfectly fits the data, with a Chi-square value of 1.67 (less than the recommended value of 5) and IFI, TLI, and CFI values of more than 0.9 (0.94, 0.93, and 0.94, respectively). The model also fit the data at an acceptable level based on the RMSEA value of 0.05 (less than the recommended value of 0.08). According to Hair, Black, Babin, Anderson, and Tatham (2010), if any two or three goodness-of-fit indices meet a study’s requirements, the model is confirmed as an acceptable measurement or structural model. Therefore, based on the above results, the researcher concluded that the goodness-of-fit indices confirmed the model fit for this study.

Construct Validity
Assessment of a proposed measurement theory’s construct validity is one of the greatest advantages of SEM (Hair et al., 2010). The degree to which the measurement of social reality matches the constructs (data) of the research is addressed through assessment of construct validity. Construct validity is of two types: convergent validity and discriminant validity (Hair et al., 2010).

Convergent Validity
Convergent validity has been defined as ‘the degree to which individual items reflecting a construct converge in comparison to items measuring different constructs’ (Urbach & Ahlemann, 2010). Dunn (2001) explains that convergent validity testing assesses the level to which a measurement or variable is predictably related to other variables. The hypothesis of convergent validity is tested through CFA (Kline, 2005) using pre-specified dimensions and associated measurement items (Hair et al., 2010; Lien, McCann, Ruthruff, & Proctor, 2005). Standardized factor loadings and average variance extracted (AVE) are used in this analysis. A standardized factor loading value ( ) of • 0.5 (Byrne, 2010; Hair et al., 2010) is recommended for each, and high convergent validity is indicated by high factor loadings on a factor (Hair et al., 2010). Although Byrne (2010) stipulated the exclusion of standardized regression weights or factor loadings of less than 0.50, according to Hair et al. (2010), the data may be retained without affecting the model fit. This study, however, considered items with factor loadings higher than 0.5.

The AVE was used as the basis for assessment of the convergent validity. The minimum criterion for convergent validity of 0.50 was exceeded for all the constructs, which indicated that the constructs explained the majority of variance (Hair et al., 2006). Additionally, the result of the construct reliability (CR) assessment determined that all constructs were reliable with values higher than the recommended value of 0.7.
Discriminant Validity
Discriminant validity in this study was determined based on the extent to which items were distinct from others (Schumacker & Lomax, 2010), or the extent of the distinctions between constructs (Hair et al., 2010). Fornell and Larcker’s (1981) technique is considered the best method for the assessment of discriminant validity (Farrell & Rudd, 2009). In accordance with this technique, support for discriminant validity is determined through comparison of the square root of the AVE for individual constructs with the correlations between pairs of two exogenous constructs (Hair et al., 2006, p. 778). The square root of the AVE should have a value higher than the absolute values of the correlations between the two constructs.

The factor correlation matrix presented in Table 2 shows that the absolute values of the correlations were all lower than the square root of the AVE. Therefore, the discriminant validity of the model had no issues, thus establishing the discriminant validity of the study’s measurement model.

Structural Model
Subsequent to obtaining the successful results from the measurement model evaluation, the researchers then evaluated the structural model for testing H1 through H7. Examination of the structural model fit utilized the goodness-of-fit indices, which were obtained with the recommended values: Chi-square of 1306.156 with 307 degrees of freedom and normed Chi-square of 4.255 (Table 3). The goodness-of-fit index (GFI) was 0.934, the adjusted goodness-of-fit index (AGFI) was 0.913, the normed fit index (NFI) was 0.963, the root mean square error of approximation (RMSEA) was 0.049, and the comparative fit index (CFI) was 0.972. These results indicated the structural model’s acceptability (Table 3).

The results for H1 yielded $\beta = .184$, CR = 3.732, $P < .05$. The results provided support for H1. Each one-point increase in utilitarian motivation was related with a 0.18-point increase in purchase intention through SNSs. The results for H2 yielded $\beta = .299$, CR 3.747, $P < .05$. The results provided support for H2 with an alpha level of 0.05 ($P = .000$). Each one-point increase in hedonic motivation was related with a 0.30-point increase in intention to purchase through SNSs. The results for H3 yielded $\beta = .206$, CR = 3.611, $P < .05$. The results provided support for H3. Each one-point increase in trust to SNSs was associated with a .18-point increase in purchase intention through SNSs. The results for H4 yielded $\beta = .381$, CR = 5.036, $p < .05$. The results provided support for H4. Each one-point increase in Habit was associated with a 0.38-point increase in intention to purchase through SNSs. The relationships between the constructs are summarized in Figure 3 and in Table 4.

Moderator of Habit
The next procedural step was testing the moderation effect on individual paths using multi-group analysis. In this study, the groups divided into two subgroups, high-habit and low-habit using the median (Chiu et al., 2012). The criteria for this from Hair et al. (2010) are that a moderator is determined as moderating a path if the beta for the first group is significant while the beta for the second group is non-significant, or the beta is found to be significant for both groups when one has a positive value and the other negative.

Overall Moderating Model
Thus, after evaluating the goodness-of-fit indices based on the structural model, the moderation effect of habit on SNSs was performed via AMOS software in two steps. First of all, the moderation impact of trust on SNSs was examined on the overall structural model of the study, and then, in the next stage, the moderation impact of habit on SNSs was examined on the single paths.

The result of testing for an overall moderating effect from habit, which is provided below, shows that the measurement residual $\chi^2$ was greater than the unconstrained $\chi^2$ based on $\Delta \chi^2 = 137.739$ with 348 degrees of freedom. The significant difference at the 0.05 level ($p < .05$) is indicative of some type of moderation effect from habit on the overall model Table 5.

(Criteria) Unconstrained > Measurement Residuals ($\chi^2$ is smaller)
$\Delta \chi^2 = 137.739$ (634.285-496.546); df = 348 (372-324); p = .000

Individual Paths
The moderation impact on individual paths was next examined utilising multi-group analysis. Hair et al.’s (2010) criteria stipulate that a path is moderated if the beta for the first group is significant but the second group’s beta is non-significant or the beta values for both groups are significant with one being positive and the other negative Table 6.

**H5:** Habit (low level and high level) moderates the relationship between utilitarian motivation and purchase intention through social networking websites.

The results show that the relationship between utilitarian motivation and purchase intention for respondents with low level of habit was significant ($\beta = .339$) (Table 6). Nonetheless, the path hypothesis for respondents with high levels of habit was not significant ($\beta = .052$) (Table 6). Therefore, the moderation effect of habit on the path relationship between utilitarian motivation and purchase intention was supported.

**H6:** Habit (low level and high level) moderates the relationship between hedonic motivation and purchase intention through social networking websites.

The results display a significant relationship between hedonic motivation and purchase intention for respondents with high levels of habit ($\beta = .552$) (Table 6); furthermore, the path hypothesis for respondents with low levels habit was significant as well ($\beta = .364$) (Table 6). Therefore, the moderation effect of habit on the path relationship between hedonic motivation and purchase intention was not supported.

**H7:** Habit (low level and high level) moderates the relationship between trust and purchase intention through social networking websites.

The results show that the relationship between trust and purchase intention through social networking websites for respondents with high levels of habit was significant ($\beta = .196$); likewise, the path hypothesis for respondents with low levels of habit was significant ($\beta = .204$) (Table 6). Therefore, the moderation effect of habit on the path relationship between trust and purchase intention was not supported.

Discussion
As expected, the findings confirmed that the performance expectancy construct positively affected purchase intention. Consumers who had high performance expectancy also had high
levels of intention to purchase goods online through SNSs. These findings agree with those of studies conducted by Escobar-Rodriguez and Carvajal-Trujillo, (2013, 2014), Pascual-Miguel et al. (2015), San Martín and Herrero (2012), and Venkatesh et al. (2012), which found that performance expectancy significantly influenced intentions to utilize new technology. This may imply that the expected benefits obtained from shopping through social media-based e-commerce sites likely influence consumers to have stronger intentions to purchase goods online. This may be explained by Deci’s (1975) Motivational Theory, which postulates that extrinsic and intrinsic motivation are determiners of user acceptance. System external benefits associated with product use are effective in extrinsic motivation, while users are intrinsically motivated when the use of a system is likely to be a source of enjoyment. The Motivational Theory combines the PE and HM constructs of the UTAUT2 with the extrinsic motivational factor emulating PE, while HM is complemented by the intrinsic driver (Venkatesh et al., 2012). It was thus expected that consumers would be more likely to use social media for personal purposes if they perceived their experience with it as beneficial and pleasurable.

Correlational analysis showed that hedonic motivation was the second most important predictor of behavioural intention after habit. According to Baptista and Oliveira (2015), customer intention to use mobile banking was positively affected by the utilitarian or transactional orientation of current mobile banking services, which were perceived as enjoyable, producing positive emotional responses such as personal satisfaction and a shared sense of purpose. Consumer motivation to search for and purchase products through SNSs may be more entertainment-oriented given that SNS usage is voluntary and hedonic. The significant effect perceived enjoyment (hedonic motivation) has on intention to purchase online supports this notion. The fact that the respondents of this study had intrinsic or hedonic motivations for using websites is in agreement with other studies that found causal relationships between intrinsic or hedonic motivation and behavioural intentions. It may thus be concluded that individuals who perceive that they will experience utilitarian and hedonic benefits will be positively influenced regarding online purchase intention.

In this research, it was also found that trust has a positive influence on online purchasing through SNSs. The relationships among variables discussed above have been reported in previous research (Escobar-Rodriguez & Carvajal-Trujillo, 2014; Pascual-Miguel et al., 2015); however, they have not all been explored using the same model. The research also found that in the context of SNSs, the strongest predictor of online purchase intention was habit. This finding is in agreement with those of several other studies (Escobar-Rodriguez & Carvajal-Trujillo, 2013; Escobar-Rodriguez & Carvajal-Trujillo, 2014; Pascual-Miguel et al., 2015; San Martín & Herrero, 2012; Venkatesh et al., 2012). Escobar-Rodriguez and Carvajal-Trujillo (2013), for example, found that habit had a strong effect on individuals’ levels of purchase intention and probability of purchasing and using airline tickets from airline company websites. In addition to this study’s finding on the affective influence of habit

The present study contributes toward the understanding of the moderating effects of habit on utilitarian and hedonic motivation and trust in SNSs in online purchasing behaviour. The research has also verified that the relationship between utilitarian motivation and intention is moderated by the strength of habit. Furthermore, utilitarian motivations influence consumers
with lower levels of habit to stay with online shopping sites.

Although the UTAUT2 is considered ‘an important model in ICT literature, it has not been tested in many different settings and contexts yet’ (Raman & Don, 2013). More information is needed on the various possible applications of the UTAUT2 model for evaluation of the model’s capacity in explaining and predicting intention and use behaviour in the adoption process, which was a goal of the present study. While previous research in this area has been conducted on the bases of rather general technology acceptance models (e.g., TAM), the analysis of purchase intention in relation to SNS technology adoption involves specific variation requiring a deliberate departure from these norms. This research provides much needed information on technology acceptance and use with regard to consumer online purchasing in the social media context. This study theoretically contributes to the general knowledge regarding potential mechanisms of SNSs by establishing a framework for increasing consumer purchase intentions situated in the Malaysian context. The proposed theoretical model consider habit as a moderator variable in UTAUT2. The integrated model clarifies the roles of utilitarian motivation, hedonic motivation, trust to SNSs and habit in SNSs online purchase intentions. The study makes important contributions to the literature pertaining to intentions to purchase through SNSs by providing potentially generalizable quantitative data. Further, while most of the past literature on social media in the marketing domain rarely applies the theoretical work of Venkatesh et al. (2012), this research integrated the applicability of the theory for studying intentions to purchase through SNSs.

Aside from the theoretical implications of this research, the findings may also benefit marketers with a clearer understanding of consumer behaviour within SNS contexts. Social media operatives should also examine the significance of their social and instructive capacities to give some extra help to key capacities through their web design. Moreover, operators must guarantee that this online tool offer, relevance, credibility and the ability to evoke empathy through word of mouth (WOM) communication. By making good advance in our understanding of customers, online traders and entrepreneurs would be encourage to improve more effective online marketing operations, which meet the expectations and requirements of new online shopping customers. Although government has made a few key steps in supporting and advancing the development of SNSs as an online business platform in the nation the current policies should also promote the use of SNSs among Malaysian businesses.

The more practical results revealed that habit, hedonic motivation, performance expectancy, and trust in SNSs are significant factors influencing successful online transactions involving products sold through SNSs.

**Limitations and Recommendations for Future Research**

Further research should be conducted with regard to several aspects of this study. As the research model adapted for this study is in essence a product of continuously evolving research conducted to expand the knowledge available about online purchase intentions, researchers should consider the inclusion of other variables and modifications to extend it for the purposes of their research. The location of this study, Klang Valley, Malaysia has its own unique characteristics, which could have contributed to results that are not replicable in other
geographical or social settings. The homogeneity of the study’s respondents, who were university students studying in the research location, could represent a lack of representativeness necessary to provide results generalizable to the rest of Malaysia or perhaps other locales or target populations. This could be somewhat remedied in future research by including more representative variation in the sample groups for age and social factors or by expanding the study to cover more of the general population and geographical locations. Young consumers expressing being addicted to social networking websites stated that its use felt natural. Since this research was conducted through a quantitative approach, qualitative methodology could be used in studies that are similar in scope to provide other perspectives on this area of research or which could be used to confirm the findings of this study. Finally, even though the study has used the UTAUT2 as a basic guiding theory, actual usage has not been considered as a dependent variable in this research. The future study should also research actual usage as a dependent variable.

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Figures and Tables

**Figure 1.** Extended Unified Theory of Acceptance and Use of Technology Model
Figure 2. Research Model
Chi-square (df) = 531.995 (263); P value = .000; Relative Chi-Square = 2.023; AGFI = .873; GFI = .897; CFI = .940; IFI = .941; TLI (>= .9) = .932; RMSEA = .053
(Standardized estimates)

Note: UM = Utilitarian Motivation; HM = Hedonic Motivation; H = Habit; TR = Trust; PI = Purchase Intention

Figure 3. Measurement Model of the Study
Chi-square (df) = 531.995 (263); P value = .000; Relative Chi-Sq = 2.023; AGFI = .873; GFI = .897; CFI = .940; IFI= .941; TLI (>=0.9) = .932; RMSEA = .053 (Standardized estimates)

Note: UM = Utilitarian Motivation; HM = Hedonic Motivation; H = Habit; TR = Trust; PI = Purchase Intention

Figure 4. Structural Model of the Study
Table 1: Standardized Factor Loading, Average Variance Extracted (AVE), and Construct Reliability (CR) for the Variables

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<tr>
<th>Scale Items</th>
<th>Factor Loading</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utilitarian Motivation (UM)</strong></td>
<td></td>
<td>0.530</td>
</tr>
<tr>
<td>(Composite Reliability) = 0.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find social networking websites useful in the purchasing process.</td>
<td>PE 1 Deleted</td>
<td></td>
</tr>
<tr>
<td>Using social networking websites increases my chances of achieving things that are important to me in the purchasing process.</td>
<td>PE 2 .68</td>
<td></td>
</tr>
<tr>
<td>Using social networking websites helps me accomplish things more quickly in the purchasing process.</td>
<td>PE 3 .69</td>
<td></td>
</tr>
<tr>
<td>I can save time when I use social networking websites for my purchases.</td>
<td>PE 4 .76</td>
<td></td>
</tr>
<tr>
<td>The social networking websites made it easier to search for and purchase products.</td>
<td>PE 5 .71</td>
<td></td>
</tr>
<tr>
<td><strong>Hedonic Motivation (HM)</strong></td>
<td></td>
<td>0.548</td>
</tr>
<tr>
<td>(Composite Reliability) = 0.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchasing via social networking sites is fun for its own sake.</td>
<td>HM1 .58</td>
<td></td>
</tr>
<tr>
<td>Purchasing via social networking sites makes me feel good.</td>
<td>HM2 deleted</td>
<td></td>
</tr>
<tr>
<td>Purchasing via social networking sites would be boring.</td>
<td>HM3 72</td>
<td></td>
</tr>
<tr>
<td>Purchasing via social networking sites is enjoyable.</td>
<td>HM4 84</td>
<td></td>
</tr>
<tr>
<td>Purchasing via social networking sites is entertaining.</td>
<td>HM 79</td>
<td></td>
</tr>
<tr>
<td><strong>Trust (TR)</strong> (Composite Reliability) = 0.887</td>
<td></td>
<td>0.530</td>
</tr>
<tr>
<td>Based on my experience with the social networking website, it is honest.</td>
<td>TR1 61</td>
<td></td>
</tr>
<tr>
<td>Based on my experience with the social networking website, I know it cares about customers.</td>
<td>TR2 77</td>
<td></td>
</tr>
<tr>
<td>Based on my experience with the social networking website, I know it understands its</td>
<td>TR3 76</td>
<td></td>
</tr>
</tbody>
</table>
Based on my experience with the social networking website, I know it is not opportunistic.

Based on my experience with the social networking website, I know it provides good service.

Based on my experience with the social networking website, I know it is predictable.

Based on my experience with the social networking website, I know it is trustworthy.

**Purchase Intention (PI)** = Purchase composite reliability) = 0.873

- I intend to continue using social networking sites in the future to purchase products and services. PI1 = 78
- I will always try to use social networking sites as a purchasing platform in my daily life. PI2 = 74
- I plan to continue using social networking sites to make frequent purchases. PI3 = 77
- I predict that I will continue to use social networking websites for purchases in the future. PI4 = 84
- I will recommend others to use social networking websites to purchase products and services. PI = 68

**Habit (H)** = (Composite Reliability) = 846

- The use of social networking websites to purchase products and services has become a habit for me. H1 = 73
- I am addicted to using social networking websites to make purchases. H2 = 77
- I must use social networking websites for my purchases. H3 = 71
- Using social networking websites to purchase products and services has become natural to me. H4 = 76
Using social networking websites as a purchasing platform is something I do without thinking

Table 2. Average Variance Extracted (on the Diagonal) and Squared Correlation Coefficients (on the Off-Diagonal) for Study Instruments

<table>
<thead>
<tr>
<th>Construct</th>
<th>CR</th>
<th>AVE</th>
<th>PI</th>
<th>H</th>
<th>HM</th>
<th>TR</th>
<th>UM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention (PI)</td>
<td>0.873</td>
<td>0.580</td>
<td>0.762</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habit (H)</td>
<td>0.846</td>
<td>0.525</td>
<td>0.644</td>
<td>0.724</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedonic Motivation (HM)</td>
<td>0.826</td>
<td>0.548</td>
<td>0.664</td>
<td>0.667</td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in SNSs (TR)</td>
<td>0.887</td>
<td>0.530</td>
<td>0.505</td>
<td>0.375</td>
<td>0.541</td>
<td>0.728</td>
<td></td>
</tr>
<tr>
<td>Utilitarian Motivation (PE)</td>
<td>0.802</td>
<td>0.504</td>
<td>0.151</td>
<td>-0.072</td>
<td>0.003</td>
<td>-0.030</td>
<td>0.710</td>
</tr>
</tbody>
</table>

Note: Diagonal elements (bold) are the square root of AVE. Off-diagonal components are the correlations among concepts. For discriminant validity, diagonal components should be larger than off-diagonal components. UM = Utilitarian Motivation; TR = Trust; PI = Purchase Intention; HM = Hedonic Motivation.

Table 3. Model fit criteria

<table>
<thead>
<tr>
<th>Goodness of Fit Indices</th>
<th>Authors</th>
<th>Accepted Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square ($\chi^2$)</td>
<td>Tabachnik and Fidell (2007)</td>
<td>Smaller, the better</td>
</tr>
<tr>
<td>Degree of freedom (df)</td>
<td>Tabachnik and Fidell (2007)</td>
<td>Bigger, the better</td>
</tr>
<tr>
<td>CMIN/df Relative ($\chi^2$)</td>
<td>Marsh and Hocevar (1985); Bentler (1990)</td>
<td>&lt; 5.0</td>
</tr>
<tr>
<td>GFI (Goodness of Fit Indices)</td>
<td>Chau (1997); Segars and Grover (1993)</td>
<td>&lt; 0.90</td>
</tr>
<tr>
<td>CFI (Comparative Fit Indices)</td>
<td>Bentler (1990); Hatcher (1994)</td>
<td>&lt; 0.90</td>
</tr>
<tr>
<td>IFI (Incriminate Fit Indices)</td>
<td>Bentler and Bonett (1980)</td>
<td>&lt; 0.90</td>
</tr>
<tr>
<td>RMSEA (Root Mean Squared of Estimation Approximation)</td>
<td>Byrne (2001); Hu and Bentler (1999)</td>
<td>&lt; 0.08</td>
</tr>
<tr>
<td>RMSR (Root Mean Squared Residual)</td>
<td>Hu and Bentler (1999)</td>
<td>&lt; 0.08</td>
</tr>
</tbody>
</table>
Table 4. Results of Regression Weight on Effect of Predictors on Purchase Intention

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Estimate</th>
<th>S.E.</th>
<th>β</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilitarian Motivation</td>
<td>.195</td>
<td>.052</td>
<td>.184</td>
<td>3.732</td>
<td>***</td>
</tr>
<tr>
<td>Hedonic Motivation</td>
<td>.333</td>
<td>.089</td>
<td>.299</td>
<td>3.747</td>
<td>***</td>
</tr>
<tr>
<td>Habit</td>
<td>.318</td>
<td>.063</td>
<td>.381</td>
<td>5.036</td>
<td>***</td>
</tr>
<tr>
<td>Trust to SNSs</td>
<td>.221</td>
<td>.061</td>
<td>.206</td>
<td>3.611</td>
<td>***</td>
</tr>
</tbody>
</table>

Table 5. The Goodness-of-Fit Statistics for the Variant and Invariant Models

<table>
<thead>
<tr>
<th>Model</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconstrained Measurement Residuals</td>
<td>496.546</td>
<td>324</td>
<td>000</td>
<td>1.533</td>
</tr>
<tr>
<td></td>
<td>634.285</td>
<td>372</td>
<td>000</td>
<td>1.678</td>
</tr>
</tbody>
</table>

Table 6. Results of the Moderation Test of Habit on the Relationship between Predictors and Purchase Intention

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Estimate</th>
<th>P</th>
<th>CR for Differences</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>UM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>.051</td>
<td>.052</td>
<td>.469</td>
<td>.723</td>
</tr>
<tr>
<td>Low</td>
<td>.339</td>
<td>.265</td>
<td>.002*</td>
<td>3.100</td>
</tr>
<tr>
<td>TR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>.220</td>
<td>.196</td>
<td>.031*</td>
<td>2.151</td>
</tr>
<tr>
<td>Low</td>
<td>.261</td>
<td>.204</td>
<td>.018*</td>
<td>2.360</td>
</tr>
<tr>
<td>HM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>.809</td>
<td>.552</td>
<td>***</td>
<td>4.957</td>
</tr>
<tr>
<td>Low</td>
<td>.538</td>
<td>.364</td>
<td>***</td>
<td>3.879</td>
</tr>
</tbody>
</table>

Note: Results of the Hypothesis Test: Path Coefficients (β), Critical Ratios (CR), and Significance Levels. *p < .05; UM = Utilitarian Motivation; HM = Hedonic Motivation; TR = Trust; PI = Purchase Intention
Public Interest Statement

As in many other countries, social media has today become one of the fastest and strongest networking and communication tools in Malaysia. This has facilitated the growth of online marketing and online shopping in the country. Realizing this development, companies have to undertake into the world of social media. Identifying the factors influencing consumer online purchase intentions through social networking sites (SNSs) is essential in advancing online shopping via SNSs. This study in an attempt to investigate how the proposed model provides better explanation of the factors affecting purchase intention in the use of SNSs.

Saeideh Sharifi Fard, Ph.D in Mass Communication from University Putra Malaysia. Her research interest are in media, marketing communication, sociology and gender studies. This paper is part of her Ph.D thesis and she did not receive any found for the research.