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RELATIONSHIP BETWEEN TECHNOLOGY ACCEPTANCE MODEL (TAM) AND ONLINE SHOPPING ADOPTION: A CASE STUDY IN BERJAYA UNIVERSITY COLLEGE OF HOSPITALITY

Sandy Rata Dasan
BERJAYA University College of Hospitality Malaysia
Saintdeez88@gmail.com

Chung Jee Fenn
BERJAYA University College of Hospitality, Malaysia.
Chung.jeefenn@berjaya.edu.my

ABSTRACT

The purpose of this study is to understand relationships between factors of Technology Acceptance Model (TAM) and online shopping adoption in Malaysia, by focusing on BERJAYA University College of Hospitality as a study field. Specifically, the original Technology Acceptance Model is extended by applying new constructs, demographic, trust and perceived risk. The model is used to investigate relationships across the targeted samples, provided that they are current Internet subscribers. A total of 127 Questionnaires were distributed among students and staffs at the study field using convenience sampling approach. The data gathered was tabulated using SPSS version 17. Three types of analysis; T-Test, One-Way ANOVA, and Pearson Coefficient Correlation were administrated. The findings of this study support previous literatures in regards to demographic, perceived ease of use and perceived usefulness; but differ in regards to trust and perceived risk.

***Keywords**: Online shopping adoption, demographic, trust, perceived risk, perceived ease of use, perceived usefulness.*

INTRODUCTION

Background of the Study

According to Wong (2010) in Hassan, Zambri, Kasiran, Mahli, Ghani, and Muhammad (2012), thousands of online stores are mushrooming locally, such example include using blog as an online shopping platform. Blog, nonetheless, is not the only platform used to engage in such activity. As stated before, the globalisation and development in information technology (Ramayah and Ignatius, 2005 in Ibrahim, Khan, Rahman and Ramezanie, 2013) allows Internet subscribers to defy spatial and temporal separations (Mayayise and Osunmakinde, 2014); enabling them to shop online at their most convenient times and places from different vendors. With that being said, there are a few websites that gather vendors either locals or internationals with offerings of clothes, shoes, watches and more such as, Zalora.com.my, Lazada.com.my, or Ebay.com.my.

The growing trend of e-commerce evolves not only in the Western countries, but it gives significant changes in Malaysia's e-commerce environment as well (Shahida and Khairuddin, 2008 in Hassan et al., 2012). It has transformed into potential business avenue, now commonly known as online shopping (Hassan et al., 2012). Such claim is probably accurate backed with the figures from two surveys conducted by PayPal, which indicate an increment in e-commerce expenditure by 9 percent from RM1.8 billion in year 2010 to RM1.97 billion in year 2011 (Junn, 2012). Corresponding to its own survey report, PayPal noted that Malaysians are moving in line with the online shopping trend (Junn, 2012).

Meanwhile, in relation to this, Malaysian Communications and Multimedia Commission (2011) (hereafter MCMC) in its report named Household Use of Internet Survey 2011, 98.4 percent of its respondents were Malaysians whereas 1.6 percent were other nationalities. Out of 6,144 respondents in the survey, 24.5 percent of them used Internet as a platform for online shopping with getting information being the highest, standing at 88.3 percent (Refer to Appendix 1, page 28). In the following year, as MCMC (2012) reported in its Internet Users Survey 2012, there were 18.6 million of Internet subscribers in Malaysia. Local Internet subscribers accounted at 94.3 percent, whereas the balance of 5.7 percent were those of foreign nationalities. However, there is no figure from the aforementioned report that indicates the purpose of Internet usage.

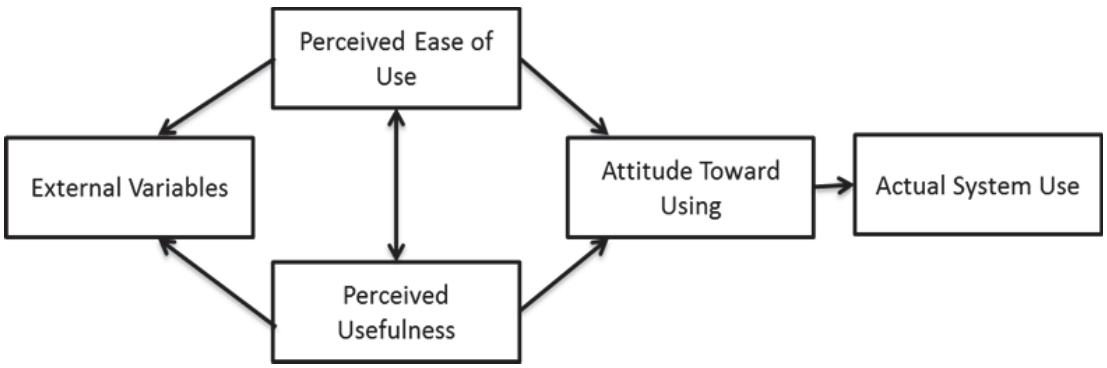
To date, regardless of nationality, the number of Internet users in Malaysia is 19,132,300 out of the total population of 30,278,000 for year 2014 (Euromonitor, 2014). According to Ueno (2013) in Teng (2013), e-commerce revenue is expected to surpass RM1.72 billion in year 2017. In another study, Trend Micro identified eight out of ten Internet users in Malaysia involve in online shopping (Digital News Asia, 2013). This suggests that there is a potential that Internet growth parallel with e-commerce growth. Yet, despite the growth, academic researches on online shopping does not appear to move at similar pace as there is a scarcity of resources available on Malaysian context (Mohammed, Hussein, Zamzuri and Hagshenas, 2014).

In addition, local retailers are still reluctant to market their goods and services via online shopping channel as the online shopping patterns of their target markets are still unknown and uncertain (Cheng and Ken, 2010 in Rezaei, Amin and Khairuzzaman, 2014). Moreover, the original TAM and other relating theories, nonetheless, tested and applied particularly to study online consumers in the developed countries such as in the United Kingdom and the United States of America (Tong, 2009). Despite being used frequently in academic studies to understand online shopping (Venkatesh and Davis, 1996; Venkatesh and Davis, 2000; Venkatesh and Bala, 2008; Yusoff, Muhammad, Zahari, Pasah and Robert, 2009 in Kershawarni and Bisht, 2012), the result of the studies and cannot be used to generalised online shopping environment in the Asian countries (Tong, 2009) particularly Malaysia (Karim, Kumar and Rahman, 2013).

By conducting this study, researcher concentrate on Internet subscribers in a smaller sample with an attempt to study the factors affecting only shopping between both online shoppers and non-online shoppers; regardless whether they had make any purchase or not before. Therefore, using the original TAM as theoretical base for this study, researcher incorporates three new independent variables into the original TAM and one dependent variable to fit the studied environment. Those variables namely are demographic, perceived risks, trust in online retailers and online shopping adoption. These new independent variables are relevant to the study as previous researches suggested that perceived risks is regarded as a barrier to successful adoption of online shopping (Forsythe and Shi, 2003 in Hsu, Chuang and Hsu, 2014; Bauer, 1960 in Kershawarni and Bisht, 2012; Murphy and Enis, 1986 in Ling, Daud, Piew, Keoy and Hassan, 2011); whereas demographic serves the purpose of explaining innovative behaviour with respect to interactive communication technologies and services (Roger, 1991 in Karayanni, 2003; Im, Bayus and Mason, 2003; Meuter, Bitner, Ostrom and Brown, 2005 in Lee, Cho, Hsu and Fairhurst, 2010) and trust being the most cited reason for not adopting online shopping (Lee and Turban, 2001 in Monsuwe, Dellaert and Ruyter, 2004).

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) proposed by Fred Davis in 1989 is used as theoretical base for this study (without the attitude towards using construct) with inclusion of three new independent variables into the original TAM and one dependent variable to fit the studied environment. Those independent variables namely are demographic, perceived risk and trust, whereas the dependent variable is online shopping adoption. TAM (Refer to Figure 2.1) has been applied successfully to understand online shopping (Gefen and Straub, 1997; Koufaris, 2002; Lin and Lu, 2000; Liu, Tucker, Koh and Kappelman, 2003; O'Cass and Fenech, 2003; Vijayasarathy, 2004; in Lee, Fiore and Kim, 2006).



Source: Davis (1989) in Chuttur (2009)

Figure 1: **Technology Acceptance Model (TAM)**

Demographic

Five demographic characteristics suggested in this study are; age, gender, education level, occupation and income level. These characteristics have been found to be highly appealing for researchers due to their measurability (Prakash and Munson, 1985; Kotler, Armstrong, Saunders and Wong, 1999 in Piercy, 2012). Demographic has been used to explain purchasing behaviour across traditional retail and internet markets (Piercy, 2012), exploration of shopping orientations and online purchase (Brown, Pope and Voges, 2003), and internet shopping adoption (Vrechopoulos, Siomkos and Doukidis, 2001). Previous research relates a relationship between demographic characteristics and shopping environment; suggesting that shoppers' demographic influence their shopping behaviour (Carpenter, 2008). Nonetheless, some researchers disputed demographic provide a minimal understanding of purchasing behaviour (Karjaluoto, Mattila and Pento, 2002; Bellman, Lohse and Johnson, 1999; Modahl, 2000; Bhatnagar and Ghose, 2004; in Piercy, 2012). The results as seen in study by Konus, Verhoef and Neslin (2008), did not provide consistent pattern of behaviour, often conflicting and known to be less influential (Piercy, 2010).

Gender has been advocated as playing a role with regards to shopping channel selection, switching and retribution behaviours (Funches, Markley and Davis, 2009 in Piercy, 2012). Wood (2002) suggested that regardless of gender, younger adult shoppers are more interested to shop online shopping technology in order to find information of new goods and services, compare and assess available alternatives (Monsuwe, Dellaert and Ruyter, 2004). Similarly, Sorce, Perotti and Widrick (2005) in Allred, Smith and Swinyard (2006) reported that older shoppers as compared to younger shoppers, search for fewer good and services online; adding that both younger and older shoppers purchase goods and services just as much as one another. According to Donthu and Garcia (1999) and Korgaonkar and Wolin (1999) in Brown, Pope and Voges (2003), online shoppers are most likely to be older and of higher incomes, contrary with the study by Ratchford, Talukdar and Lee (2001) in Monsuwe, Dellaert and Ruyter (2004) that suggested older shoppers perceive online shopping as less beneficial and therefore avoid online shopping at all cost.

In regards to gender, online shoppers are slightly more to be male rather than female (Korgaonkar and Wolin, 1999 in Brown, Pope and Voges, 2003). Lu, Yu, Liu and Yao (2003) conversely, stated that those who adopt online technology are generally young and male shoppers (Lee, Cho, Xu and Fairhurst, 2010). This is consistent with other findings that reported online shoppers are likely to be males with high knowledge of the Internet, greater education and higher incomes (Li, Kuo and Russell, 1999; Sin and Tse, 2002; Swinyard and Smith, 2003; in Allred, Smith and Swinyard, 2006). Im, Bayus and Mason (2003) denoted similar premise, but without gender specification (Lassar, Manolis and Lassar, 2005).

However, Otnes and McGrath (2001) in Karim, Kumar and Rahman (2013) argued that shopping is predominantly regarded as a feminine activity. Women seek information more actively in comparison to men and shop online more frequently than men do (Zeithaml, 1985 in Karim, Kumar and Rahman, 2013; Burke, 2002; Li, Kuo and Russell, 1999 in Monsuwe, Dellaert and Ruyter, 2004). Therefore, changes in gender profiles over online shopping make it unclear as to whether these findings (highlighted above) still representative (Vuori and Homlund-Rytokonon, 2005 in Piercy, 2012).

As for education, it has been positively correlated with Internet knowledge according to Li, Kuo and Russell (1999) in Monsuwe, Dellaert and Ruyter (2004). Well educated shoppers equipped with Internet literacy are more comfortable purchasing goods and services online (Burke, 2004 in Monsuwe, Dellaert and Ruyter, 2004). They often look forward to expand their knowledge and to discover new things in their lives (Karim, Kumar and Rahman, 2013). Porter and Donthu (2006) suggested that insufficient knowledge is one of the reasons why less educated shoppers choose not to adopt online shopping (Lee, Cho, Xu and Fairhurst, 2010). Online shoppers with higher incomes have the tendency to shop more compared to those who have lower incomes (Monsuwe, Dellaert and Ruyter, 2004). The more money one has, the more likely he or she to shop online (Karim, Kumar and Rahman, 2013). The lack of consistency in evidences made it impossible for researchers to develop precise and direct hypotheses (Piercy, 2012). Therefore, as a conclusion, the addition of demographic factor is relevant to this study based on the arguments above, demographic still plays an important role in online shopping behaviour.

Trust

Absence of trust has been cited frequently as a reason for not engaging in online shopping (Lee and Turban, 2001 in Monsuwe, Dellaert and Ruyter, 2004). Trust has been pointed as a major obstacle to growth and adoption of online shopping (Gefen, Karahanna and Straub, 2003; Yousafzai, Pallister and Foxall, 2005; in Barnes, Bauer and Neumann, 2007; Komiak and Benbasat, 2006; in Weisberg, Te'eni and Arman, 2011; Hsu, Chuang and Hsu, 2014). Without trust, commercial transactions will not take place between both parties. Absence of trust could delay and deter the growth of e-commerce or online retailing if not addressed properly (Mayayise and Osunmakinde, 2014). Mayer, Davis and Schoorman (1995) defined trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustee, irrespective of the ability to monitor or control that other party" (Hsu, Chuang and Hsu, 2014). Rousseau, Sitkin, Burt and Camerer (1998) defined trust as "a psychological state comprising the intention to accept susceptibility based upon positive expectations of the intentions or behaviour of another" (Weisberg, Te'eni and Arman, 2011).

Reason for not engaging in online shopping is also due to lack of trust by online shoppers upon the channel used and the online retailers who sell their goods and services over the Internet (Barnes, Bauer and Neumann, 2007). Trust in online retailers has been identified to have been influencing purchase intentions (McCole, Ramsey and Williams, 2010 in Constanza & Andrews, 2012). To be precise, trust in online shopping environment is important due to its complexity and possibilities of insincerity and unpredictable behaviour (Gefen and Straub, 2003 in Weisberg, Te'eni and Arman, 2011). According to Gefen, Karahanna and Straub (2003) in Fang, Chiu and Wang (2011), in general, online shoppers will avoid purchasing from the online retailers whom they do not trust, or they assume that the online retailers will not be ethical and behave in an appropriate way. When online shoppers trust online retailers to act as anticipated, the complexity of trust is reduced (Kershawarni and Bisht, 2012). Trust must exist between both parties provided that online retailers do not misuse their websites for unfair pricing, misleading information, and violating security and privacy (Weisberg, Te'eni and Arman, 2011).

Hence, trust reduces perceived risk (Kershawarni and Bisht, 2012). Violation of online shoppers' trust in terms of security and privacy, negatively impact purchase intention and consequently leads to reluctance in online shopping adoption (Monsuwe, Dellaert and Ruyter, 2004). In addition, for a continuous successful online shopping adoption, trust needs to be stimulated between online shoppers and online retailers (Gefen, Karahanna, 2003 in Fang, Chiu and Wang, 2011).

Perceived Risks

It has been supported that perceived risk exist in online shopping transactions (Pope, Brown and Forrest, 1999 in Brown, Pope and Voges, 2003; Lee and Turban, 2001 in Monsuwe, Dellaert and Ruyter, 2004). Perceived risk is regarded as a barrier to a successful adoption as they engage in online shopping activity (Forsythe and Shi, 2003 in Hsu, Chuang and Hsu, 2014). It negatively influences shoppers' intention to shop online (Bhatnagar, Misra and Rao, 2000; Park, Lee and Ahn, 2004; in Tong, 2009; Swinyard and Smith, 2003 in Black, 2005). According to Murphy and Enis (1986) in Ling, Daud, Piew, Keoy and Hassan (2011), perceived risk is encountered by online shoppers in purchasing transaction due to their fault and inappropriate decisions from their personal valuations during decision making process. Likewise, perceived risk is defined as online shoppers' belief with regards to potential negative outcomes from engaging in online shopping activity (Kim, Ferrin and Rao, 2007 in Ling et al., 2011; Kim, Ferrin and Rao, 2008 in Constanza & Andrews, 2012).

Bhatnagar and Ghose (2004) in Allred, Smith and Swinyard, (2006) stated that shoppers perceived risks decline along with their age and experience in online shopping. Evidences suggested shoppers continue to perceive online shopping activity as risky (Bourlakis, Papagiannidis and Fox, 2008; Drennan, Sullivan Mort and Previte, 2006; Ha and Coghill, 2008; Kuhlmeier and Knight, 2005; McCole, Ramsey and Williams, 2010 in Constanza & Andrews, 2012). Despite having been purchasing goods and services online, this perception can have substantial and opposite relationship with attitudes and intentions (Andrews and Boyle, 2008; Forsythe, Liu, Shannon and Gardner, 2006 in Constanza & Andrews, 2012). In online shopping environment, when online shoppers perceived online shopping activity as risky, they tend to be show negativity towards purchase decisions (Hsu, Chuang and Hsu, 2014; Kershawarni and Bisht, 2012). In contrast, when online shoppers' perceived risk is low, their purchase decisions is highly positive (Jarvenpaa and Tractinsky, 1999 in Liu, Brock, Shi, Chu and Tseng, 2013). The nature of online shopping environment (without spatial and temporal

separations) causing high degree of perceived risk thus generates uncertainty (Shim and Lee, 2011; Al-Gahtani, 2011 in Kershawarni and Bisht, 2012).

There are two types of risk that are thought to be predominant; privacy risk and security risk (Rust, Kannan and Peng, 2002; Zeithaml, Parasuraman and Malhotra, 2002 in Black, 2005; Chen and Barnes, 2007; Murkherjee and Nath, 2007; in Ling, Daud, Piew, Keoy and Hassan, 2011; Runyan, Smith and Smith, 2008 in Mayayise and Osunmakinde, 2014). In similar premise, Miyazaki and Fernandez (2001) identified risk as privacy and security having association with online shopping behaviour (Liu, Brock, Shi, Chu and Tseng, 2013). Security risk refers to the safety of credit card and personal information (Bart, Shankar, Sultan and Urban 2005 in Ling et al., 2011). The risk with regards to credit card theft or misuse personal information, influence shoppers' purchasing decisions (Malhotra, Kim and Agarwal, 2004; Forsythe and Shi, 2003; in Coker, Asshil and Hope, 2011).

Privacy risk is the shoppers' ability to control the distribution of information provided during the online transactions and the ability to control the presence of other people in the environment during the online transaction (Goodwin, 1991 in Ling et al., 2011). Garbarino and Strahilevitz (2004) concluded privacy risk as having one's personal information made public (Coker, Asshil and Hope, 2011). Hacking and phishing attempts to personal and sensitive credentials stored in credit card, has been found to push online shoppers participation in online shopping adoption (Gerrard, Cunningham and Devlin, 2006; Ndubisi and Jantan, 2003; Nor and Pearson, 2008; Polasik and Wisniewski, 2009; in Kershawarni and Bisht, 2012). Credit card fraud on the other hand, does not necessarily related to the purchase amount of goods and services, but risk of losing money in online shoppers' bank accounts (Andrews and Boyle, 2008; Bhatnagar, Ghose and Rao, 2000; Biswas and Biswas, 2004; in Constanza & Andrews, 2012). In order for transactions to take place, online shoppers must provide information about themselves such as credit card credentials and other relevant data (Eastlick and Lotz, 2011).

Due to absence of salesperson and direct interactions (Black, 2005), online shoppers were unable to physically monitor security and privacy while entering personal credentials during online transactions (Lee and Turban, 2001 in Monsuwe, Dellaert and Ruyter, 2004). Ultimately, the higher degree of perceived risk, the fewer likely shoppers to purchase goods and services online (Kuhlmeier and Knight, 2005). When online shoppers feel secured and confident that their privacy is protected, their level of trust will improved subsequently (Hsu, Chuang and Hsu, 2014).

Perceived Ease of Use

Perceived ease of use (PEOU) is an individual's evaluation of the mental capacity involved in using new technology or system (Davis, 1989 in Kershawarni and Bisht, 2012). According to Gefen (2000) in Ling, Daud, Piew, Keoy and Hassan (2011) is also defined as indicator of cognitive effort to learn and to utilise new information technology. It is regarded as vital in Internet applications (King and He, 2006 in Mohammed, Hussein, Zamzuri and Hagshenas, 2014). David (1989) refers to it as individual's perception that using new technology is mentally free of effort (Monsuwe, Dellaert and Ruyter, 2004). In the context of online shopping, perceived ease of use refers to process leading to the final online shopping outcome (Monsuwe, Dellaert and Ruyter, 2004).

In previous studies, it has been found to positively relates to purchase intentions in online shopping (Ramayah and Ignatius, 2005; Shang, Chen and Shen, 2005) and associates with trusts and perceived usefulness (Wen, Prybutok, Xu, 2011) (Mohammed, Hussein, Zamzuri and Hagshenas, 2014). Davis (1986, 1989) pointed that perceived usefulness influenced by perceived ease of use because the easier the technology is, the more useful it can be (Kershawarni and Bisht, 2012). When purchasing goods and services is perceived as easy to understand and do, they will continue to interact with that site (Barkhi and Wallace, 2007 in Tong, 2009). Once consumers have the required level of knowledge and skills to shop on the Internet, this will attenuate the relationship between "ease of use" and "usefulness" and their attitude toward online shopping, because these factors are then of less influence to them in forming a positive attitude toward shopping on the Internet (Monsuwe, Dellaert and Ruyter, 2004).

Perceived Usefulness

Perceived usefulness (PU), on the other, is the degree of individual's belief that in electronic commerce context refers to online shoppers' perceptions that using the internet as a shopping medium enhance the outcomes of the shopping experience (Monsuwe, Dellaert and Ruyter, 2004). Many empirical evidences found that perceived usefulness to be significant and positively affect attitudes towards using a technology (Venkatesh and Bala, 2008; Davis, 1989; Venkatesh and Davis, 2000; in Kershawarni and Bisht, 2012). On the other side, both perceived ease of use and perceived usefulness partly influences online purchase intention (Gefen, Karahanna and Straub, 2003; Kamarulzaman, 2007; Ha and Stoel, 2008; in Ling, Daud, Piew, Keoy and Hassan, 2011). Studies by Ramayah and Ignatius (2005) and Shang, Chen and Shen (2005), however, did not find relationship between perceived usefulness and intention to shop online (Mohammed, Hussein, Zamzuri and Hagshenas, 2014).

Online Shopping Adoption

Adoption and acceptance vary from one another. According to Hernandez, Himenez and Martin (2009), adoption of online shopping coming from potential online shoppers, whereas acceptance coming from experienced online shoppers. Simply put, when a system or technology is introduced in the market, potential online shoppers who intend to make purchase means they adopt the system, whereas experienced online shoppers who intend to repeat using the system means they accept the system (Vrechopoulos, Siomkos and Doukidis, 2001). However, the interest of this study takes into account factors affecting both shoppers, disregarding whether they have never or have made a purchase before. Therefore, based on the above arguments (trust, perceived risk, perceived ease of use, perceived usefulness), the following hypothesis is proposed;

METHODOLOGY

This research is a quantitative study that emphasise on objective measurements and numerical analysis. The research instrument used in this study is a self-administered Questionnaire consisting two sections. The first section is Demographic. The second section is Trust, Perceived Risk, Perceived Ease of Use, Perceived Usefulness and Online Shopping Adoption. Questions are developed based on previous researches, with some amendments made to fit the study environment. All twenty one Likert Scale questions ranging between 0.7 to 0.94 in Cronbach's Alpha readings, which means they are reliable and consistent to use.

Targeted sample was 127 respondents. A key criterion of a respondent is that he or she must be an internet subscriber, does not necessarily have experience in online shopping. The distribution of the Questionnaire is based on convenience sampling method. The same approach has been used prior to research in online shopping (Ramayah and Ignatius, 2005 in Mohammed, Hussein, Zamzuri and Hagshenas, 2014).

Once primary data is obtained through survey questionnaire, the data is then tabulated and analysed through statistical software called SPSS version 17. A total of 127 Questionnaires were distributed to 127 respondents. Descriptive analysis and inferential analysis are used to explain the data. Secondary sources such as journals and books are used to support the findings.

FINDINGS

Demographic and Online Shopping Adoption

Gender

Out of total 127 respondents in this study, there are 64 male respondents which are accounted to 50.4 percent, whereas 63 female respondents are accounted to 49.6 percent. The independent t-test result in Table 1 indicates that mean scores were significantly higher for female (M = 11.08, SD = 1.05) than male (M = 9.63, SD = 0.87). The t-value for female is -8.449 whereas male is -8.461. The significance value in the result is 0.00, which is less than 0.05. Therefore, it is concluded that there is a significant difference of gender in online shopping adoption.

Table 1: Mean Scores and T-Values Deference of Gender in Online Shopping Adoption

Gender	n	Mean (M)	Std. Deviation (SD)	Std. Error Mean	t	Sig.
Male	64	9.6367	.87052	.10881	-8.461	.000
Female	63	11.0873	1.05414	.13281	-8.449	.000

Significant at P < 0.05

Age

The respondents' age varies between two groups. The first group, 61.4 percent of them are between 18 years old to 24 years old, whereas the other 38.6 percent are between 25 years old to 34 years old. There are more respondents from the first age group, which are 78 of them. There remaining 49 respondents are coming from the second age group. The independent t-test result in Table 2 indicates that mean scores were significantly higher for group age between 18 to 24 years old (M = 10.04, SD = 1.10, t = -3.86) than group age between 25 to 34 years old (M = 9.63, SD = 0.87, t = -3.78). The significance value is 0.00. The value is less than 0.05. Therefore, based on the result, it is concluded that there is a significant difference of age in online shopping adoption.

Table 2: Mean Scores and T-Values Deference of Age in Online Shopping Adoption

Age	n	Mean (M)	Std. Deviation (SD)	Std. Error Mean	t	Sig.
18 to 24 years old	78	10.0449	1.10397	.12500	-3.868	.000
25 to 34 years old	49	10.8520	1.20753	.17250	-3.789	.000

Significant at P < 0.05

Education Level

There are three tier education level used to segregate the respondents; High School, Diploma and Degree. 76 respondents or 59.8 percent of them are high school leavers who study at the university; 45 respondents or 35.4 percent of them are Diploma holders; and 6 respondents or 4.7 percent of them are Degree holder. One-way ANOVA test comparing the education level and online shopping adoption indicates that there is no significant difference for the three levels (high school, diploma and degree); F (2, 124) = 0.207 and p = 0.813. The result is presented in Table 3.

Table 3: Mean Scores and F-Values Deference of Education Level in Online Shopping Adoption

	Sum of Squares	*df*	Mean Square	F	Sig.
Between Groups	.611	2	.305	.207	.813
Within Groups	182.829	124	1.474		
Total	183.440	126			

Significant at P < 0.05

Employment Status

As for employment status, there are 101 student respondents, which are equivalent to 79.5 percent, whereas staffs are amounted to 26 respondents, which are 20.5 percent. The independent t-test result indicates that mean scores were significantly higher for staff (M = 10.58, t = -1.154) than students (M = 10.29, t = -1.092). Refer to

Table 4, the standard deviation for staff, however, is lower (SD = 1.11) whereas student is higher (SD = 1.22). The significance value is greater than 0.05. Student p = 0.227 and staff p = 0.255. Therefore, based on the result, it is concluded that there is no significant difference between employment status and online shopping adoption.

Table 4: Mean Scores and T-Values Deference of Employment Status in Online Shopping Adoption

Employment Status	N	Mean (M)	Std. Deviation (SD)	Std. Error Mean	t	Sig.
Student	101	10.2970	1.22664	.12206	-1.092	.277
Staff	26	10.5865	1.11790	.21924	-1.154	.255

Significant at P < 0.05

Income Level

Income level is categorised into two; no answer and RM24,000 to RM36,000. A total of 124 respondents responded to no answer, and 3 respondents responded to RM24,000 to RM36,000. The independent t-test result in Table 5 indicates that mean scores for respondents who have no answer is M = 10.33, SD = 1.20, t = -1.302 whereas those who responded to income level between RM24000 to RM36000 is M = 11.25, SD = 1.29, t = -1.208. The significance value is greater than 0.05, which is 0.195. Therefore, based on the result, it is concluded that there is no significant difference between income level and online shopping adoption.

Table 5: Mean Scores and T-Values Deference of Income Level in Online Shopping Adoption

Income Level	N	Mean (M)	Std. Deviation (SD)	Std. Error Mean	t	Sig.
No answer	124	10.3347	1.20166	.10791	-1.302	.195
RM24,000 to RM36,000	3	11.2500	1.29904	.75000	-1.208	.346

Significant at P < 0.05

Trust and Online Shopping Adoption

The Pearson Coefficient Correlation Test result indicates that the r value of 0.606 denotes a positive and strong correlation between trust and online shopping adoption. Hence, it is concluded that as the value of trust increase, it will resulted in increase in online shopping adoption as well. The p value is 0.00 which is less than 0.05. It indicates that there is a significant relationship between trust and online shopping adoption.

Table 6: Correlation between Trust and Online Shopping Adoption

		TRUST	ONLINE SHOPPING ADOPTION
TRUST	**Pearson Correlation (*r*)**	1	.606**
	Sig. (2-tailed)		.000
	N	127	127
ONLINE SHOPPING ADOPTION	**Pearson Correlation (*r*)**	.606**	1
	Sig. (2-tailed)	.000	
	N	127	127

***. Correlation is significant at the 0.01 level (2-tailed).*

Perceived Risk and Online Shopping Adoption

The test result for perceived risk and online shopping adoption indicates that there is a positive and moderate correlation between these two variables. The r value is equals to 0.574 which means any increase in the value of perceived risk will result in increase in online shopping adoption as well. The p value is 0.00 which is less than 0.05. It indicates that there is a significant relationship between perceived risk and online shopping adoption.

Table 7: Correlation between Perceived Risk and Online Shopping Adoption

		PERCEIVED RISK	ONLINE SHOPPING ADOPTION
PERCEIVED RISK	Pearson Correlation *(r)*	1	.574**
	Sig. (2-tailed)		.000
	N	127	127
ONLINE SHOPPING ADOPTION	Pearson Correlation *(r)*	.574**	1
	Sig. (2-tailed)	.000	
	N	127	127

**. *Correlation is significant at the 0.01 level (2-tailed).*

Perceived Ease of Use and Online Shopping Adoption

Based on the result below, perceived ease of use (PEOU) and online shopping adoption indicates a positive and moderate correlation, with r value of 0.575. Based on this number, any increase of perceived ease of use will increase online shopping adoption. Meanwhile, the p value is 0.00 which is less than 0.05. It indicates that there is a significant relationship between perceived ease of use and online shopping adoption.

Table 8: Correlation between Perceived Ease of Use and Online Shopping Adoption

		PEOU	ONLINE SHOPPING ADOPTION
PEOU	Pearson Correlation (*r*)	1	.575**
	Sig. (2-tailed)		.000
	N	127	127
ONLINE SHOPPING ADOPTION	Pearson Correlation (*r*)	.575**	1
	Sig. (2-tailed)	.000	
	N	127	127

**. *Correlation is significant at the 0.01 level (2-tailed).*

Perceived Usefulness and Online Shopping Adoption

Table 9 indicates that there is a strong correlation between perceived usefulness and online shopping adoption. The r value is equals to 0.782. Based on this number, increase value of perceived usefulness will increase online shopping adoption as well. The significance value is 0.00. It indicates that there is a significant relationship between perceived usefulness and online shopping adoption.

Table 9: Correlation between Perceived Usefulness and Online Shopping Adoption

		PERCEIVED USEFULNESS	ONLINE SHOPPING ADOPTION
PERCEIVED USEFULNESS	**Pearson Correlation (*r*)**	1	.782**
	Sig. (2-tailed)		.000
	N	127	127
ONLINE SHOPPING ADOPTION	**Pearson Correlation (*r*)**	.782**	1
	Sig. (2-tailed)	.000	
	N	127	127

***. Correlation is significant at the 0.01 level (2-tailed).*

CONCLUSION AND RECOMMENDATIONS

In BERJAYA University College of Hospitality, online shopping adoption is most likely to be adopted by young shoppers. The young age group is between 18 years old to 24 years old, whereas the older age group is between 25 years old to 34 years old. Both age groups differ in terms of education; which are high school, diploma and degree. Note that this study is conducted in a university context; hence, those who fall under the high school do not imply that they are still in high school. It implies that they are pursuing higher education at the university, either taking diploma or degree. Students are also prone to be the subject of the study as they are more approachable in the areas of the university. The staffs, however, are more likely to be in the office, beyond the reach of the researcher. To conclude, the result of this study supports previous research by Vrechopoulos, Siomkos and Doukidis (2001) whereby online shopping adoption are most likely to be adopted by young male shoppers.

Literature suggests that trust has been pointed as a major obstacle to growth and adoption of online shopping (Gefen, Karahanna and Straub, 2003; Yousafzai, Pallister and Foxall, 2005; in Barnes, Bauer and Neumann, 2007; Komiak and Benbasat, 2006; in Weisberg, Te'eni and Arman, 2011; Hsu, Chuang and Hsu, 2014). Potential online shoppers or present online shoppers will only engage in online shopping provided that the online retailers are trustworthy, keep their promises and be committed, and behave according to their expectations. The result of this study differ from previous study by Hsu, Chuang and Hsu (2014) whereby online shopping adopters in BERJAYA University College of Hospitality have ample amount of trust that influence their decisions to adopt online shopping.

Perceived risk, likewise, is also regarded as a barrier to a successful adoption as they engage in online shopping activity (Forsythe and Shi, 2003 in Hsu, Chuang and Hsu, 2014). The result of this study denotes a relationship between perceived risk and online shopping adoption. Should online shoppers perceive online shopping adoption as risky and that they will incur loss during transaction, they will not adopt online shopping. On the contrary, they will adopt if they feel all that all security and privacy measurements have been implemented accordingly. Based on the result, it differs with previous study by Hsu, Chuang and Hsu (2014). One plausible for this might be that these potential and present online shoppers in BERJAYA University have little perception in risk on online shopping adoption.

Meanwhile, perceived ease of use demonstrates to have a relationship with online shopping adoption. Previous research by Davis (1989) and Davis, Bargozzi and Warshaw (1989) indicate that greater perceived ease of use in new technology or system contributes to greater adoption (Mohammed, Hussein, Zamzuri and Hagshenas, 2014). The finding of this study indicates that online shopping adopters find online shopping website as easy to use to search for information they desire. This finding is consistent with King and He (2006), Ramayah and Ignatius (2005) in Mohammed, Hussein, Zamzuri and Hagshenas (2014), and with Mohammed, Hussein, Zamzuri and Hagshenas (2014) as well.

While perceived usefulness shows a relationship with online shopping adoption which is consistent with previous literatures (Bhattacherjee, 2001; Koufaris, 2002; Al-Maghrabi and Dennis, 2010; Mohammed,

Hussein, Zamzuri and Hagshenas, 2014), Online shoppers adopt online shopping because they feel that shopping through online websites will increase their shopping performance, productivity and effectiveness. The plausible explanation to this might be because online website reduces the time constraint whereby they have to balance between work and personal life. Hence, using online shopping websites enables them to shop at any convenient time and place.

Nonetheless, the findings are useful for the management of the university. Based on the findings, trust, perceived risk, perceived ease of use and perceived usefulness shows a positive relationship towards online shopping. Online shopping website and university website differs only in its purpose of use. Both however, still fall under internet technology or system. The findings can be used and adapted to improvise the university's websites. For example, internet users who are looking for university placement can browse the university's corporate website to obtain the updated and relevant information they need (such as course duration, course fees, course syllabus, contact information, university location, and many more) in the website itself without having to refer to other websites. Another example is, current university's students and staffs can refer to the university's portal website to obtain exam schedule, course fees status, subjects status and many more, without having to refer to separate departments at the university (I.e.: Registrar Department, Marketing Department, Finance Department) to get the information they desire. The more useful the website, the more likely internet users will use the website to find the information they need.

Researchers who intend to conduct research on online shopping adoption should consider conducting the study in larger scales; for example comparing two different universities in Klang Valley. In addition, future researcher may want to employ a different type of sampling; for example random sampling. This approach enables each member of the studied population to have an equal chance of being selected. Each selected respondent will not affect the next respondent. Researcher will be able to categorise the studied population based on the similarity of their characteristics; young, old, educated or uneducated and many more (Cohen, Manion and Morrison, 2007).

Besides that, present online shoppers who shopped through online websites previously may differ in perceptions compared to those who never shop online. The finding of this study takes into account of the relationship between factors of TAM and online shopping adoption from perception of both groups. Therefore, it is highly suggested that future researcher to focus on one group only; either on potential or present online shoppers. With this approach, future researcher will be able to identify and differentiate the factors that prevent potential online shoppers from adopting online shopping; and factors that influence present online shoppers to continue to shop online.

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