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Hanaysha, Jalal Rajeh, Chen, Cheah Lee, Abdul Rahim, Noor Fareen, Salamzadeh, Yashar and Hasouneh, Lana Omar (2023) Determinants of Online Purchase Intention Toward Life Insurance in Malaysia: Moderating Role of Trust. *Jindal Journal of Business Research*, 12 (2). pp. 233-250. ISSN 2278-6821

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Determinants of Online Purchase Intention Toward Life Insurance in Malaysia: Moderating Role of Trust

Abstract

This article focuses on examining the impact of web skills, perceived usefulness, subjective norms, perceived web security, and perceived ease of use on online purchase intention. It was also designed to verify the moderating effect of trust among them. Required data was gathered from customers of insurance companies in Malaysia via an online questionnaire. SmartPLS was used to conduct statistical analyses and verify research hypotheses. The findings showed that subjective norms, perceived usefulness, perceived ease of use, and perceived web security are positively associated with online purchase intention. However, the effect of web skills on online purchase intention was not supported. In other words, customers tend to purchase an online life insurance if they believe the process will be easy, safe, and convenient for them. The results also showed that trust moderates the association among subjective norms and intent to buy life insurance online.

Keywords: Malaysia, Online purchase, Insurance, Trust, Purchase intention, Customer purchase behavior, Technology Acceptance Model

1. Introduction

Human beings striving hard to fulfilling various needs in life, two of them are physiological needs and safety needs. Insurance is considered one of the safeties needs nowadays. Buying insurance is a long-term contract, involving understanding, comparing and considering processes prior to making right purchasing decision. According to Mishra & Bedi (2010), insurance is a cooperative practice of transferring the loss caused by a particular risk over a number of individuals who are exposed to the same risk and agreed to insure themselves against it.

Generally, insurance can be divided into two sectors; general (non-life) and life, whereby the Malaysian insurance industry is governed by the Insurance Act 1996 under the supervision of Bank Negara Malaysia (BNM, 2018). General insurance is an insurance product that does not cover the life of an insured. On the other hand, LIAM (2018) defines life insurance as a huge number of people (policyholders) collectively pay certain amount of money (premiums) into a pool fund managed by the insurer to ease the hardships faced by its members due to death, disability or critical illness. Generally, in the past to purchase life insurance, consumers tend to have face-to-face interaction with their insurance agent in delivering messages, products and services which in a way more traditional-oriented or offline mode. This is consistent with the Central Bank of Malaysia's 2017 Financial Stability and Payment Systems Report (BNM, 2018a) shows more than 80 percent is contribution from the agency and banc assurance channels, while other distribution channels such as internet is still new and in its infant stage, only account for small market share of less than 1 percent of the total new premiums of life insurance sector as a result of slow focus of the service provider in the industry.

However in the long term to penetrate into wider range of insurance market, Peterson, Balasubramanian, & Bronnenberg (1997) infer that internet is the most suited distribution channel when the core essence of the product is of an intangible and informative nature. Internet allows for considerable decreases operating costs, facilitates more efficient transactions, interactivity, customer support and fosters relationships (Khare, Dixit, Chaudhary, Kochhar & Mishra, 2012). Statistic by Life Insurance Marketing Research Association (LIMRA, 2013) shows that about 64 percent respondents' ages between 18 and 75 preferred face-to-face interactions from an insurance agent to purchasing online as compared to 80 percent in 1996. The number of respondents whom preferred face-to-face interaction is then dropped to 50 percent for the same survey carried out in 2013 (LIMRA, 2011 & 2013). As more information are gradually migrating to online services, part of the intermediaries involve physical interaction of face-to-face has been removed through the process called disintermediation (G Eysenbach, 2008). Disintermediation takes place when consumers started to search huge amounts of online information on their own based on their best knowledge and past experiences. For instance, consumers purchase life insurance online based on product disclosure information portrayed on insurers' website and trustworthiness belief on life insurers without assistance from the insurance

agents throughout the entire purchasing process. Through the presence of web, internet has provides an efficient channel for marketing, selling, advertising and direct distribution of certain types of goods and services and act as a support channel for customer feedback (D. L. Hoffman & Novak A Gary Anderson, 2009).

Besides that, the online insurance purchases are relatively small in the market as a result of slow focus of the service providers in the industry. The Malaysian life insurance penetration rate has remained stagnant at about 56 percent over the past few years, increases by merely 1.1 percent a year between 2014 and 2017 (BNM, 2018), which means almost half of the Malaysian population is not covered under insurance protection. In view of this, the insurers have started taking steps to further improve the overall industry performance and there is a positive tendency to purchase insurance online in a relatively more matured market due to higher level of insurance awareness (Dr Schanz, 2018). Therefore, the way forward would be to create better understanding and awareness of insurance products.

Previous studies were directed towards understanding consumers purchasing drivers and determinants of purchase intention, including intrinsic characteristics of the products and services. In Technology Acceptance Model (TAM and TAM 2), the determinant of trust was not widely incorporated into the existing factors namely perceived ease of use, perceived usefulness, social influence process (subjective norm, image and voluntariness) and cognitive instrument process (perceived ease of use, job relevance, output quality and result demonstrability) (Venkatesh & Davis, 2000b) that influencing customers' behavioral intention to purchase online, prior to model proposed to integrate determinants of trust and perceived risk (Pavlou & Fygenson, 2006) into the uncertainty of virtual online environment. Online insurance requires buyer (policyholder) to perform all actions from acquiring information, selecting suitable insurance plans, clearing doubts to making purchase decision over the internet platform developed by the seller (insurer). Consumers' willingness to purchase online most likely influenced by their intention and attitudes towards using the new technology based on the acceptance and availability of the system in place.

Hence, this study examines the influence of subjective norms, web skills, perceived usefulness, perceived ease of use and perceived web security on purchase intention of life

insurance through online. This study also aims to fill two gaps in literature review. First, there is a gap to extend the exploration of the moderating effect of trust on purchase intention, and second, to encourage the use of multi-channel distribution to purchase life insurance over the convenience of internet. Overall, this study aims to address research questions:

- I. Are there effects of subjective norms, web skills, perceived usefulness, perceived ease of use and perceived web security on purchase intention of life insurance through online?
- II. Is there an effect of purchase intention on customer purchase behavior of life insurance through online?
- III. Does trust moderates the relationships between subjective norms, web skills, perceived usefulness, perceived ease of use and perceived web security and purchase intention of life insurance through online?

2. Literature Review

2.1 Subjective Norms

Subjective norm explains external elements such as perceived social pressure to encourage consumers to perform a specific behavior that leads to sustainable purchases or consumptions (Liobikienė, Mandravickaitė, & Bernatoniene, 2016). An individual's behavior is often correlated to his or her social contacts such as friends and family members. This would result in users purchasing products that are similar to those purchased by their friends or family members in online shopping (Kooti et al., 2015). Darsono Gunawan & Huarng (2015) advocate the degree to which subjective norms influence behavioral intentions may subject to different variables such as type of behaviors under consideration, type of individual involves or other related factors. There are two components of subjective norms including injunctive and descriptive norms cited by Fishbein & Ajzen (2011) where descriptive norm extends the normative belief to contain social pressure of belonging to a particular group who may or may not perform the behavior (Yadav & Pathak, 2016). In the context of life insurance online, consumers will have greater intention to purchase insurance online if they believe that significant others consider life insurance products are good to them, in consistent with Awan & Nabeel (2015) subjective norm is the most influential driver of purchase intention in halal food sector, in green products

(Chaudhary & Bisai, 2018) and in medical tourism industry (Na et al., 2017). Previous studies figure out insurers need to enhance the intangible components of services through online channel apart from the tangible services offered. Users' online service experience influence their expectation and likelihood towards recommending and continuance using of online service (Méndez-Aparicio, Izquierdo-Yusta, & Jiménez-Zarco, 2017). Many studies also reveal that subjective norms are important predictors of intention to purchase financial services products through online, such as life insurance, credit cards and financing facilities including Islamic home financing (Abduh & Science, 2012; Md Husin, Ismail, & Ab Rahman, 2016). A finding by Awan & Nabeel (2015) postulate subjective norms does not significantly influence actual purchases but has profound significant effect on purchase intention through online. Moreover, He, Lu, & Zhou (2008) hypothesized recommendations by third parties (subjective norms) significantly influence customers purchase intention through online, supported by Aqila Hasbullah et al., (2016); H. Awan & AN Siddiquei (2015) that subjective norms has direct significant effect on purchase intention towards online shopping. The conclusion is applicable in the Malaysia context whereby Malaysians are more directed towards culture-bounded and averse to change (Sinniah et al., 2018; Lim et al., 2016). However, some may not find subjective norm has significant effect on behavioral intention towards purchasing which expected to vary across behaviors and dimensions, as Mahon, Cowan, & McCarthy (2006) posit subjective norm is important for ready meals but not for takeaway meals in the consumption in Great Britain. Therefore, first hypothesis is proposed:

H1: There is a positive significant relationship between subjective norms and purchase intentions of life insurance through online.

2.2 Web Skills

Correa (2015) defines web skills as one's own perception of his or her capability and ability to locate web content efficiently and effectively. There are 4 types of skills; information skill, strategic skill, formal skill and operational skill, in which information and operational skills are more directed towards self reported level of skills (Litt, 2013). Among others, web skills pose the largest impact on the number of activities transacted in the web (Livingstone & Helsper, 2007) and become the most significant antecedents of flow when accessing to new technology

(Webster, Trevino, & Ryan, 1993; Ghani, Supnick, & Rooney, 1991). Liu, Pu, Guan, & Yang (2016) posit skills are from the users' perception, not by observation or judgment; it is more towards computer self-efficacy of the users, in other words, consumers are more likely to embrace new technology and poses favorable cognitive reaction if they perceived to have higher web skills in them. Thus, likelihood of purchase intention through online is higher when customers pose higher level of web skills (Jee & Lee, 2002). In contrast, Van Deursen, Van Dijk, & Ten Klooster (2015) figure out users who have lower levels of education and income typically as well have relatively lower web skills however tend to use web more frequently for activities other than capital gaining such as gaming, Facebooking and other social interactions, as compared to them with higher socio-economic status in a study on usage patterns (age, gender, education and income) of various types of internet activities carried out among Dutch population from 2010 to 2013. Therefore, hypothesis 2 is proposed:

H2: There is a positive significant relationship between web skills and purchase intentions of life insurance through online.

2.3 Perceived Ease of Use

Ozturk, Bilgihan, Nusair, & Okumus (2016) associate perceived ease of use with the degree to which a person believes would be without physical and mental efforts of shopping online. Aqila Hasbullah et al., (2016) posit perceived ease of use is the extent to which consumers perceive insurers' website is easy to learn, to operate, to navigate, to use and the interactivity with the website is clear and understandable. Technology Acceptance Model first employed two beliefs of perceived ease of use and perceived usefulness of the technology systems. In Technology Acceptance Model 2, Davis (1989) maintains perceived ease of use as a direct key determinant of perceived usefulness. According to Technology Acceptance Model, perceived ease of use has dual effect (direct and indirect) on purchase intention through online. The indirect effect on purchase intention occurs through perceived usefulness as the easier a technology is to use, the more useful it can be (Alcoba et al., 2018). In applying perceived ease of use in the context of online shopping, it becomes perceived ease of navigating, whereby it refers to the degree to which navigating insurers' website is perceived to be free of effort (Salisbury, Pearson, Pearson, & Miller, 2001). Many studies tested there are evidence that perceived ease of use is linked

significantly to purchase intention by examining its direct impacts on how easy internet is to use as a medium to do purchase on internet such as; in green purchase intention of electric motorcycle market (Wu, Wu, Lee, & Lee, 2014) and utilizing near field communication (NFC) mobile payment technology in hotels (Morosan & DeFranco, 2016). Therefore, the lesser effort the system is to use, the greater it can enhance task performance hence user of the technology system may find it useful to perform the transactions online. Thus, hypothesis 3 is proposed:

H3: There is a positive significant relationship between perceived ease of use and purchase intentions of life insurance through online.

2.4 Perceived usefulness

Davis, Bagozzi, & Warshaw (1992) refer perceived usefulness as the degree to which a person believes would be increasing his or her job performance of using a specific system. Perceived usefulness could also be defined as the extent to which consumers feel the online website provides value-added and efficacy to them when performing shopping online (Lim et al., 2016). Previous studies (Joo & Sang, 2013; N. Park, Kim, Shon, & Shim, 2013) have copied Technology Acceptance Model that states perceived usefulness is a good predictor of intention to use internet to improve user acceptance of insurance online (F. D. Davis, 1993). Internet users perceived efficiency of the content and search engine on insurers' website to be useful to them when they require less effort and ease of website use tend to lead to higher intention to purchase when performing shopping online (Moslehpour, Pham, Wong, & İ Bilgiçli, 2018). Previous studies on perceived usefulness were mostly conducted in developing countries like Malaysia (Mazzini Rohani Salwana Hassan, 2016; Abd Hamid, Zaidi Abdul Razak, Abu Bakar, & Salihin Wong Abdullah, 2016), China (Zhang, Schmöcker, Fujii, & Yang, 2016; He et al., 2008) and India (Roy, Balaji, Kesharwani, & Sekhon, 2017; Deb & Agrawal, 2017), however only a small percentage conducted in developed countries such as Taiwan (Chang, Chou, Yeh, & Tseng, 2016; Wu, Wu, Lee, & Lee, 2014) and Spain (Escobar-Rodríguez & Bonsón-Fernández, 2017; Matute, Polo-Redondo, & Utrillas, 2016). This is due to developing countries are still in the infant stage of technology adoption as compared to developed countries that are more advanced in technology usage (Kant Srivastava Jindal, Kant Srivastava, & Kumar Panigrahi, 2016). Other studies by Y. Joo & Park (2018); Özbek, Alnıaçık, Koc, Emin Akkılıç, & Kaş (2014); Yoon &

Barker Steege (2013) also claim perceived usefulness has causality relationship with purchase intention as broken links on websites demotivate customers from visiting the websites thus decreasing their intention to purchase. To further support the variable, YA Nugroho (2016) advocates 5 indicators in measuring perceived usefulness, including usefulness for the user, productivity enhancement, transaction speed, transaction effectiveness and improvement of the transaction effectiveness. Therefore, hypothesis 4 is proposed:

H4: There is a positive significant relationship between perceived usefulness and purchase intentions of life insurance through online.

2.5 Perceived web security

Security is one of the fundamental concerns when performing transactions online. The security of consumers' financial accounts and the prevention of fraudulent monetary transactions play a pivotal role in increasing consumer confidence in online transaction system usage (Chandio, Irani, Zeki, Shah, & Shah, 2017). Shin & Shin (2011) define perceived web security as the degree to which a person believes would be secured of using a specific system in the virtual online environment. Informative-based website provides predefined publicly available marketing information including product and services offered by insurers. Whereas, interactive-based website provides for transaction to be executed such as soliciting insurance proposal, purchase and renewal of policies that may or may not involve payments through online (BNM, 2018b). Perceived web security could also be defined as ones belief that World Wide Web is secure for transmitting sensitive information (Salisbury, Pearson, Pearson, & Miller, 2001). Arpaci, Cetin, & Turetken (2015) claim perceived security existed in the Technology Acceptance Model to examine effect of perceived web security on intention to purchase through insurers' website. Salisbury et al., (2001) and Carlos Roca, José García, & José de la Vega (2009) regard individual's awareness of web security has great impact on purchase intentions through online. Consumers tend to believe they are able to transact securely in the web system when insurers implemented security mechanisms is important to safeguard and maintain privacy of their sensitive personal information such as credit card number and other important financial information transmitting via internet (Arpaci, Cetin, et al., 2015). Previous studies found perceived web security positively affect intention to purchase through online as posit by Bonsón Ponte, Carvajal-Trujillo, & Escobar-Rodríguez (2015) on the intention to purchase travel online

in the tourism industry, Chandio, Irani, Zeki, Shah, & Shah (2017) in online banking facilities and Arpaci et al., (2015) on organizational adoption of mobile telecommunication technologies specifically Smartphone. Moreover, Hussain Chandio, Irani, Abbasi, & Nizamani (2013) claim one of the barriers that hinder consumers from making online financial transactions is the absence of trust in web-based system. The perception of low level of website security can increase the technological risk of adopting these technologies in insurance companies when it involves technology system. Thus, Arpaci, Kilicer, & Bardakci (2015) bring to light that perceived web security positively influence intention to purchase life insurance through online. Therefore, hypothesis 5 is proposed:

H5: There is a positive significant relationship between perceived web security and purchase intentions of life insurance through online.

2.6 Trust as Moderator

Trust in general is an important factor in many social interactions involving uncertainty and dependency (Al-Debei, Akroush, & Ashouri, 2015). In a functional aspect, trust can be seen as a mechanism that diminishes the complexity of human conduct in situations of uncertainty (T. W. Yu, & Chen, 2018). Online trust specifically essential in e-commerce as consumers are in doubt to purchase online if they do not consider the seller's website to be reliable (Bonsón Ponte et al., 2015). Hong (2018) theorizes trust as the understanding of willingness and confidence towards the reliability and integrity of an object. On the other hand, Hershberger (2012) theorizes trust as a moderator that obstructs cognitive variables from constituting attitude toward insurance through online. Cognitive responses involves the process of retention, structures of knowledge and awareness, illustration, beliefs, and thought (J. Park, Stoel, & Lennon, 2008). Hence, trust is the center point of the relationship between the buyer and seller or service provider directly affecting users' behavioral intention (Lien, Wen, Huang, & Wu, 2015) in any forms of transactions carried out, usually applied in related with trust in marketer, security of payment transactions, trust in online banking and customers' privacy for personal information (P. L. Yu, Balaji, & Khong, 2015). It is due to spatial and temporal separation which will affects consumers' purchase intention as posit by that high degree of consumer trust boost purchase intention through online (Gefen, 2000) and help retain customers (Reichheld & Schefter, 2000).

Metzger & Flanagan (2013) define trust in life insurance through online as the extent to which consumers confident and accept the information provided by the insurers. People tend to have minimal uncertainty towards credibility on a particular matter such as looking up for information through traditional way of through insurance intermediaries and subjective judgment (Hilligoss & Rieh, 2008) based on personal knowledge pertaining to trustworthiness of sources of the information obtained which is useful in guiding them for purchasing decisions. If consumers' trust belief that life insurer's website is trustworthy, this may likely affect their intention to purchase through online.

In addition, trust can be seen as an important element of moderator in many other fields among them are: the moderating effect of trust in the employer on the relationship between human resource management practices, organization performance and well being in order to engaged employees to their work (Alfes, Shantz, & Truss, 2012); trust in short food supply chains (Giampietri, Verneau, Del Giudice, Carfora, & Finco, 2018), trust as a mechanism to overcome institutional distance and cross border knowledge acquisition in international buyers and suppliers relationships (Ho, Ghauri, & Larimo, 2018); the moderating role of trust in head nurses to the effect of organizational changes on nursing job stress in learning hospitals (Ho et al., 2018); trust moderates the relationships between social media brand engagement and brand equity in multi-national corporations (Chahal & Rani, 2017) and trust as moderator in many more virtual online environments posit by Jarvenpaa, Cantu, & SY Lim (2017). Therefore, hypotheses 6 to 10 are proposed:

H6: Trust moderates the relationship between subjective norms and purchase intention of life insurance through online.

H7: Trust moderates the relationship between web skills and purchase intention of life insurance through online.

H8: Trust moderates the relationship between perceived ease of use and purchase intention of life insurance through online.

H9: Trust moderates the relationship between perceived usefulness and purchase intention of life insurance through online.

H10: Trust moderates the relationship between perceived web security and purchase intention of life insurance through online.

2.7 Purchase Intention

As internet use has spread, it has become a prevalent marketing channel for businesses to perform transactions online. Shah et al., (2012) explain purchase intention involves an individual's conscious plan in decision making process that studies the reason of a consumer to buy a specific brand or product, consistent with Mirabi, Akbariyeh, & H Tahmasebifard (2015) purchase intention is a situation where consumers tend to purchase a specific brand of product under certain circumstances in which, it often related to internal and external motivations, attitude, behavior and perception of the consumers in the complex purchasing process. Pavlou (2003) considers online transaction as a process of information retrieval and transfer and which product purchase are taken place. However, Rajesh (2018) posits that brand has influence on the individual action proneness which has no connection to attitudes. In certain scenarios, purchase intention can be a vital indicator to better predict consumer purchase behavior (Mohamed Busen, Su Mustaffa, & Bahtiar, 2016; Kanimozhi & Revathy, 2016) such as searching for product information on the internet that can translate into money and time spent of consumer actual purchases for goods and services. Ettis & Haddad (2019) posit perceived hedonic and utilitarian benefits have series of positive effect to attitude towards online insurance and tend to accept these online services that would result in more intention to purchase insurance through online. According to Laohapensang (2009) in the theory of planned behavior applied on Thai consumers implies that intention to shop online is most likely influenced by perceived behavioral control, subjective norms and attitudes of people surrounding them. Since these factors could influence consumer purchase intention, thus influencing their behavioral towards online shopping and eventually leads to actual shopping action (Lim et al., 2016). This is supported by Ali & Ahmad (2012) purchase intention has positive effect on the likelihood to make purchase decision of buying green products. To add on, an individual's willingness to purchase life insurance is most likely triggered by the technology usage whereby, it infers that the perception of the consumer may influence the decision of to purchase or not to purchase (Venkatesh & Davis, 2000). Therefore, hypothesis 11 is proposed:

H11: There is a positive significant relationship between purchase intention and customer purchase behavior of life insurance through online.

2.8 Customer Purchase Behavior

K. D. Hoffman & Turley (2002) elucidate purchase behavior is the act of an individual's direct involvement in acquiring, using and disposing of economic goods and services and the decision process that led to these acts. Lee & Yun (2015) examine purchase intentions along with other attitudinal dimensions used to predict actual usage purchase behavior. Xu et al., (2017) also explain informational incentives and social influence are the two crucial preconditions that affect customer purchase behavior during Alibaba's annual global online shopping carnival held in China every 11th November. Previous studies theorized differently on the factors affect customer purchase behavior; effect on Taobao shops' online reviews on customer purchase behavior (Li & Fan, 2015) and effect of social network marketing on customer purchase behavior through customer engagement (Barhemmati & Ahmad, 2015). Furthermore, Teng & Lu (2016) also justify in Social Exchange Theory (SET) on the relationships between customer purchase behavior and uncertainty level; reduction in uncertainty level will negatively affect the likelihood of customer purchase behavior of organic products.

3. Theoretical Models

Several studies have brought the attention on the importance of elucidating consumers purchase intention towards use of internet (Salisbury, Pearson, Pearson, & Miller, 2001; Goldsmith, 2002; Michelle Bobbitt & Dabholkar, 2001). These are then further supported by various theoretical models such as Technology Acceptance Model (TAM; Davis, 1989) and its predecessor the Theory of Reasoned Action (TRA; M Fishbein & I Ajzen, 1975) actual behavior is more likely influenced by behavioral intention. Each of these studies examines different effects on the structure of beliefs on ease of use, usefulness, internet security, innovativeness and so on.

Technology Acceptance Model 1 (TAM 1) was first proposed by F. Davis (1986) is one of the most widely used theories to examine actual usage behavior and potential acceptance or rejection of a new technology. This theory satisfies the theoretical characteristics including simplicity, verifiability and generalizability (W Verbeke, 2005) that it is simple, supported by

most data and is able to run prediction of the acceptance and actual usage behavior of new computer technologies in various areas of interest. Technology Acceptance Model (1989) however theorizes an individual's attitude and behavioral intention (not objects) to internet adoption is determined by two factors; perceived ease of use and perceived usefulness based on the Reasoned Action Theory. With the increasing use of computer system to enhance online experience and better understand main key driver of usage intention, Technology Acceptance Model extended its existing key determinants to include factors such as social influence process and cognitive instrumental process which linked to perceived usefulness that reflected in Technology Acceptance Model 2 (TAM 2) (Venkatesh & Davis, 2000). These two additional theoretical constructs incorporated in Technology Acceptance Model 2 to better reflect the causal impacts of the inter-related social forces that enabling greater user experience and actual usage of new technology systems in the information system fields such as social networking site, websites, customer relationship management (CRM), online shopping and so on (Pavlou, 2003; Vella & Caruana, 2012). In short, TAM 1 and TAM 2 are the two underlying models used in this study whereby Technology Acceptance Model elucidates the purpose of conducting online transactions from a technology point of view; first emphasizing the importance of network usability and usefulness and secondly, portraying hedonic characteristics such as pleasure-seeking (Brown, 2016) of the technology to influence consumers purchase intention and behavior of purchasing online.

Based on the literature reviews and Technology Acceptance Model, the theoretical framework is developed to examine the effects of 5 variables (subjective norms, web skills, perceived usefulness, perceived ease of use and perceived web security) and moderating effect of trust on purchase intention of life insurance through online. The relationship between purchase intention and customers purchase behavior is also examined in the study, as shown in Figure 1.

[Please Insert Figure 1 Here]

4. Research Methodology

4.1 Constructs Measurement

All variables in the survey questionnaire are measured using the five-point Likert scales ranging from (1) “Strongly Disagree to (5) “Strongly Agree”. Sources of different constructs used in questionnaires are presented in Table 1 below. All definitions of the key constructs and instrument items are explained in Appendix I.

[Please insert table 1 here]

4.2 Data Collection and Sampling

The population in this study consists of consumers over 18 years old from all states in Malaysia. This cross-sectional design approach is conducted on a convenience sampling using snowball sampling method as the respondents are geographically dispersed and this method requires relatively lower cost of obtaining responses. Based on the rule of thumb, at least 110 (11 predictors times 10) sample sizes is needed to run the analysis. However according to the statistical power analyses software G*Power 3.1.9.2, total sample size should be 178 and number of surveys sent out need to be increased by 20 percent as a buffer for incomplete and non-response survey, therefore 210 questionnaires were sent out via social media of Facebook to anyone in the researcher’s network, but only 146 surveys are returned and usable, indicating 82 percent response rate. Survey sent out through Facebook as it is the world’s largest social networking service and it is viable for social research due to its heterogeneous increasingly to produce results that can be generalized to a larger population (Rife, Cate, Kosinski, & Stillwell, 2017). Subsequently, the primary data collected is analyzed to test the research hypothesis through quantitative approach.

4.3 Analysis

Smart Partial Least Squares (SmartPLS3.0) software is used for statistical testing of the hypothesis and relationship between the variables drawn in the theoretical framework. This study adopted a two-step Structural Equation Modeling (SEM) analysis approach by first, examines the reflective measurement model to test reliability and validity, followed by research hypothesis and model fitness testing to assess structural model (Hair, Ringle, & Sarstedt, 2011). The online survey questionnaire contains total 44 items. There are 5 sections in the survey questionnaire;

Section A comprises of 7 questions based on the socio-demographic of the respondents containing descriptive information such as gender, age, marital status, education level, region of origin, type of employment and income group. 22 items on Section B that measures independent variables, 5 items on Section C tests dependent variables, 5 items on Section D about the moderating effect and Section E consists of 5 items to measure purchase intention. The sample questionnaire is attached at Appendix I of the study.

5. Results Analysis

All Demographic information of our respondents are presented in table 2.

[Please insert table 2 here]

5.1 Reliability and Validity Analysis

Factor analysis is conducted to assess reliability and validity of the instruments. Validity assessment of reflective measurement model focuses on convergent validity and discriminant validity (Hair et al., 2011). For convergent validity, average variance extracted (AVE) is examined. Table 2 shows composite reliability (CR) above 0.7, average variance extracted (AVE) above 0.5 and factor loadings exceed 0.4, all are above the recommended benchmark (Abd Ghani, Mohd Yasin, & Alnaser, 2017; Sarstedt & Ringle, 2017; F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014) which implies adequate reliability of all the constructs and results from the factor analysis can be used for further analysis.

[Please insert table 3 here]

Whereas, assessment of discriminant validity evaluates relationship between measures of the potential overlapping constructs through Heterotrait-Monotrait Ratio (HTMT) approach. The exact threshold level of HTMT is debatable. Kline (2015) and Henseler, Ringle, & Sarstedt (2015) suggest a threshold of 0.85, whereas Rahi & Mark (2016) and Segarra-Moliner & Moliner-Tena (2016) propose a value of 0.9 is also valid. Thus, all HTMT values as shown in table 3 are below the threshold value of 0.9, indicating the constructs are statistically independent and discriminant validity is valid.

[Please insert table 4 here]

5.2 Model Test

As shown in table 4 to examine the relevancy of structural model relationship using bootstrapping technique, 6 out of 11 hypotheses are supported by the data. Hypothesis paths from subjective norms, perceived ease of use, perceived usefulness, perceived web security and trust in online insurance towards purchase intention are all supported and validating H1, H3, H4, H5 and H6 respectively. H6 demonstrates the moderating effect of trust is statistically significant in the relationship between subjective norms and purchase intention shown in Figure 2 below, indicates customers with high level of trust experience higher intention to purchase insurance online as their level of subjective norms increases. The relationship between purchase intention and customer purchase behavior validating H11 that shows positive and significant effect on both the variables. To assess effect size, Coefficient of Determination (R^2) is used to combine effect of exogenous variables on endogenous variables (Abd Ghani, Mohd Yasin, & Alnaser, 2017b; F. Hair Jr et al., 2014) which R^2 for purchase intention is 0.699 and customer purchase behavior 0.652. $R^2 = 0.699$ for purchase intention implies that about 70 percent of the variance in purchase intention can be explained by the 5 variables of subjective norms, web skills, perceived ease of use, perceived usefulness and perceived web security. The judgment of what R^2 level is high depends on the specific research discipline; R^2 results of 0.20 are considered high in discipline such as customer behavior and R^2 values of 0.75 can described as substantial for endogenous latent variables in the structural model in marketing research studies. As for Cross-validated Redundancy (Q^2), it measures the effect of endogenous variables that have reflective measurements using blindfolding technique. Both purchase intention (0.443) and customer purchase behavior (0.467) give Q^2 value greater than 0 indicating the relevancy of the model is present for a endogenous construct and shows the overall model fitness.

[Please insert table 5 here]

[Please insert figure 2 here]

6. Discussion and Conclusion

Davis's Technology Acceptance Model is used as the guiding theory in this study that aims to examine three components of Technology Acceptance Model (TAM 1 and TAM 2); perceived ease of use, perceived usefulness and subjective norms. Results is supported by H3 and in tandem with the findings from Wu, Wu, Lee, & Lee (2014) and Morosan & DeFranco (2016) demonstrate that customers who perceived higher degree of ease of using insurers' website tend to pose greater intention to purchase life insurance online. Likewise, customers who perceived higher degree of subjective norms and usefulness of the website created by insurers tend to have higher intention to purchase life insurance over the convenience of internet, which supported by H1 and H4 respectively. This implies that by enhancing perceived ease of use and perceived usefulness by improving functionality of the website and speed of data transferring, customers is more intent to purchase life insurance online. In addition, this study seeks to extend framework of Technology Acceptance Model to integrate determinants of perceived web security and trust proposed by Pavlou & Fyngson (2006) is also validated by H5 and H6 in the present study. Perceived web security positively affect intention to purchase online supported by H5, consistent with study by Arpaci, Kilicer, & Bardakci (2015); Salisbury et al., (2001); Carlos Roca, José García, & José de la Vega (2009) that the higher level of perceived web security tend to have higher purchase intention through online among customers. Therefore, life insurers should take enough security measures to mitigate security risk by strengthening their network and website security level to better protect customers' personal and sensitive financial information such as credit card number that transmitted through insurer's website. By providing secure access to the website, customers feel secured and thus have relatively lower perceived web risk that can increase their purchase intention through online and purchase behavior that helps insurers draw in more sales through online distribution channel. Furthermore, the connection between purchase intention and customer purchase behavior validating H11 shows the strongest relationship. The high effect of purchase intention towards customer purchase behavior is consistent with previous studies (Kanimozhi & Revathy, 2016; Mohamed Busen, Su Mustaffa, & Bahtiar, 2016; Lim et al., 2016; Ali & Ahmad, 2012) that intention is the salient predictor of actual purchase behavior to purchase life insurance online. On the other hand, trust as moderator has partially influence purchase intention through online, which validating H6 that customers' trust on insurers' website only moderates relationship between subjective norms and purchase intention through online.

Thus, it infers customers' trust in people such as friends and family members whose opinions they value can increase their intention to purchase life insurance online according to their level of trust. The conclusion is applicable in the Malaysia context whereby Malaysian consumers are generally conservative; more directed towards culture-bounded and averse to change (Sinniah et al., 2018; Lim et al., 2016; Yi Jin, Bin Osman, & Suberi Bin ABHalim, 2014). Besides that, there is no evidence to support H2 in this study albeit Jee & Lee (2002) claim web skills have significant effect on purchase intention through online in the previous studies. However, it is reasonable for the insignificant effect between web skills and purchase intention through online as theorized by Liu, Pu, Guan, & Yang (2016) and Van Deursen, Van Dijk, & Ten Klooster (2015) as web skills is a must, easy to learn and therefore less important and thus purchase intention through online tends to be more driven by other variables such as perceived privacy and perceived risk factors than web skills.

From the theoretical point of view, this study provides several contributions to the literature. First, this study confirms Technology Acceptance Model is valid for internet adoption of intention to purchase life insurance online where it reveals a strong positive relationship between the three theoretical constructs of perceived ease of use, perceived usefulness and subjective norms, yet Technology Acceptance Model should include additional constructs such as perceived risk factors in various studies on internet adoption. This study also helps extend previous studies by including the moderating effect of trust although trust has significantly moderated only the relationship between subjective norms and purchase intention. Despite, it is crucial to examine the determinants of consumer purchase intention through online specifically in the context of Malaysia as Rezaei, Amin, Khairuzzaman, & Ismail (2014) claim that most of the theories and constructs on purchase intention through online have been developed and tested merely in developed countries like South Korea, Turkey, Spain and the United States.

Whereas on the practical front, this study is anticipated to be useful for life insurers in evaluating their customers' purchase intention while encouraging the use of multi-channel distribution to purchase life insurance over the convenience of the internet. Life insurers are to continuously make certain of their website remain easy, useful and secured to their customers to enhance customers' level of trust. It is always suggested for insurers to be diligent by enhancing

contents richness, website usability and functionality to ensure good customers' navigation experience through online. Moreover, insurers are to adopt more stringent security measures includes working towards a sound risk management framework (RMF) to address security risks involving data integrity, users' authentication, data privacy and confidentiality of information and transactions, as well as other potential risks may arise from the internet technology to continuously meet security needs appropriate to customers. In view of this, support and supervision from the Malaysian government plays a pivotal role in ensuring life insurers are adhere to the regulations at all times. All these measures in place within insurers' website show user-friendly image and good perception among customers. Thus, this would most likely affect the people whose opinions they value to increase their intention to purchase life insurance online if their level of trust to website is increases.

Similarly, to all other studies, this study has several limitations to be addressed by future researches. First, this study limited to respondents in Malaysia and the findings cannot be generalized to all other developing countries, thus the sample is not representative of the entire population. It is suggested to test this model in other developing countries in Asia such as China, Thailand and India to gain more insights related to intention to purchase life insurance online. Secondly, only people who had access to internet participate in this study. Therefore, collecting survey through online and offline methods can be employed in future research. Furthermore, the variables that have been identified in this study may not be enough therefore more variables to be considered in future research. It is suggested to integrate perceived benefits, perceived risk factors and perceived privacy in addition to Technology Acceptance Model in the future research. Lastly, further research may be carried out to examine the moderating role of trust in relation between the other four constructs and purchase intention through online by using a more representative sample.

In conclusion, this study shows a positive significant relationship between subjective norms, perceived ease of use, perceived usefulness and perceived web security and purchase intention of life insurance through online. This study also shows an increased explanatory power of purchase intention compared to previous researches whereby the finding reveals strong relationship between purchase intention and customer purchase behavior and trust moderates the relationship

between subjective norms and purchase intention of life insurance through online. By building online trust and understanding its relationship to purchase intention through online is crucial to life insurers if they are to diversify their currently available distribution channel to meet various target customers groups. Life insurers are recommended to better strategize and constantly develop and implement effective risk management program in identifying, monitoring, controlling and mitigating potential risks such as data integrity risk, authentication of users' risk, data privacy and confidentiality risk of information and transactions arise from the internet technology. Hence, it is necessary for life insurers to understand how customers perceive insurance industry in the context of Malaysia in order to comprehend customers' intention to purchase as this will positively or negatively affect their attitude towards using online insurers' website that would ultimately convert their potential customers to actual ones, at the same time to address the gaps in literature to increase life insurance penetration rate in Malaysia to minimum 75% by year 2020. It is believed that this would provide a guideline for future research and the literature review and theoretical framework would highly contribute to the understanding of customers' purchase intention through online in the life insurance industry.

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Appendix I: Measurements instrument of all constructs in survey questionnaire

Subjective norms	Strongly Disagree			Strongly Agree	
	1	2	3	4	5
1 Most people that important to me think that I should purchase insurance through insurers' website.	1	2	3	4	5
2 People who are important to me want me to purchase insurance through insurers' website.	1	2	3	4	5
3 The people in my life whose opinions I value purchase insurance through insurers' website.	1	2	3	4	5
4 Most of my family members or friends purchase life insurance through insurers' website.	1	2	3	4	5
Web skills	Strongly Disagree			Strongly Agree	
1 I how to complete online forms available on insurers' website myself	1	2	3	4	5
2 I know how to find what I want with a search engine.	1	2	3	4	5
3 I am very skilled at using insurers' website.	1	2	3	4	5
4 I considered myself knowledgeable about good search techniques on insurers' website.	1	2	3	4	5
Perceived ease of use	Strongly Disagree			Strongly Agree	
1 Learning to use insurers' website is easy.	1	2	3	4	5
2 I find it easy to locate information that I need in insurers' website.	1	2	3	4	5

3	My interactions with insurers' website are clear and understandable.	1	2	3	4	5
4	My interactions with insurers' website do not require a lot of mental effort.	1	2	3	4	5
Perceived usefulness		Strongly Disagree			Strongly Agree	
1	Insurers' website is functional.	1	2	3	4	5
2	Insurers' website is useful to purchase life insurance.	1	2	3	4	5
3	Contents on insurers' website are useful to me.	1	2	3	4	5
4	The online purchasing process of insurers' website is fast.	1	2	3	4	5
5	Advantages of purchasing life insurance through insurers' website will outweigh the disadvantages.	1	2	3	4	5
Perceived web security		Strongly Disagree			Strongly Agree	
1	I feel secure sending personal and financial information through insurers' website.	1	2	3	4	5
2	Insurers' websites have enough security measures to protect my personal and financial information.	1	2	3	4	5
3	I think insurers' website have sufficient technical capacity to ensure no other organizations will supplant its identity on the internet.	1	2	3	4	5
4	When I send data to insurers' website, I am sure they will not be intercepted by unauthorized third parties.	1	2	3	4	5
5	I feel the risk associated with online purchase is low.	1	2	3	4	5
Purchase intention		Strongly Disagree			Strongly Agree	
1	I intend to purchase life insurance through insurers' website.	1	2	3	4	5
2	I plan to purchase life insurance through insurers' website when I need to.	1	2	3	4	5

3	I intend to purchase life insurance through insurers' website in the future.	1	2	3	4	5
4	I intend to keep purchasing life insurance through insurers' website.	1	2	3	4	5
5	Overall, I would purchase life insurance that I need through insurers' website.	1	2	3	4	5
Customer Purchase behavior		Strongly Disagree			Strongly Agree	
1	I can purchase life insurance through insurers' website.	1	2	3	4	5
2	I would spend to purchase life insurance through insurers' website.	1	2	3	4	5
3	I will continue to purchase life insurance through insurers' website.	1	2	3	4	5
4	I will recommend others to purchase life insurance through insurers' website.	1	2	3	4	5
5	Overall, I would spend to purchase life insurance that I intend to through insurers' website.	1	2	3	4	5
Trust		Strongly Disagree			Strongly Agree	
1	Insurers' website is trustworthy.	1	2	3	4	5
2	Insurers' website is one that keeps promises and obligations.	1	2	3	4	5
3	Insurers' website offers secure personal privacy.	1	2	3	4	5
4	I trust insurers' website because it keeps my best interests in mind.	1	2	3	4	5
5	Overall, I trust insurers' website for life insurance purchasing.	1	2	3	4	5