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# Internet Shopping: How the Consumer Purchase Behaviour is Impacted by Risk Perception

Nik Alif Amri Nik Hashim<sup>\*1</sup>, Shah Iskandar Fahmie Ramlee<sup>2</sup>, Abdullah Muhammed Yusoff<sup>1</sup>, Normaizana Mat Nawi<sup>1</sup>, Zaimatul Awang<sup>1</sup>, Siti Afiqah Zainuddin<sup>2</sup>, Tahirah Abdullah<sup>2</sup>, Ghazali Ahmad<sup>1</sup> & Marlisa Abdul Rahim<sup>1</sup> & Boyd Sun Fatt<sup>3</sup>

<sup>1</sup>Faculty of Hospitality, Tourism & Wellness, Universiti Malaysia Kelantan

\*nikalifamri@gmail.com, abdullah.my@umk.edu.my,

maizana.mn@umk.edu.my, zaimatul@umk.edu.my, ghazali@umk.edu.my, marlisa@umk.edu.my

<sup>2</sup>Faculty of Entrepreneurship & Business, Universiti Malaysia Kelantan

shah@umk.edu.my, sitiafiqah@umk.edu.my, tahirah@umk.edu.my

<sup>3</sup>Faculty of Hotel & Tourism Management, Universiti Teknologi MARA

boyds156@uitm.edu.my

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## Abstract

Online shopping is popular nowadays because consumers feel comfortable purchasing products from their home or office. One of the major reasons for the consumers internet-shopping excitement is when the peak season arrives; they are not required to wait in long queues in a physical store to purchase product and services since the consumer can directly purchase the product through online facilities. With technology advancement, past scholars have identified what consumers consider to be risk, their primary concern in the decision-making process when purchasing through internet shopping as in shopping online. The relationship between consumer risk perceptions and internet shopping intentions is not widely explored, particularly in the context of Malaysia, but current studies have suggested that there is a close link between them. This study aims to study the influence of consumer risk perception towards internet-shopping purchase behaviour to purchase products and services in Malaysia. A total of 138 valid responses from the samples have been obtained. The convenience sampling technique has been adapted for the young consumer in this study. The data collection instrument is a questionnaire that adopts a self-administered distribution technique. Structural Equation Model Partial Least Square (SEM-PLS) version 3.0 has been used to analyse the data. The findings of Partial Least Square have confirmed model fitness in the studied population. Similarly, the findings from path analysis have found that consumer risk perception of functional risk has influenced their internet shopping intention in purchasing the product and services.

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## 1. INTRODUCTION

Online shopping is a priority for customers as the internet has become an essential tool for communication and business worldwide. According to the Internet World Stats (2018), in 2017, there were more than four billion internet users and a growing of 57.7% compared to internet users in 2000. The Asian region captures 49.2 % of the total internet users. In addition, approximately 1.66 billion people worldwide had purchased online in 2017 which generated \$2.3 million in sales from the internet. As stated by Statista (2018), the projections demonstration a growing up to \$4.48 million by year 2021 which represents a huge surge in online shopping (Paynter& Lim, 2001). This shows that the internet has revolutionized businesses for online shopping (BourlakisPapagiannidis& Fox, 2008). With access to internet-connected computers, as well as mobile computers and tablets, whether at workplaces, home or through facilities like cybercafes, cafes and libraries, today this shopping trend has become a regular style of transaction. Despite the fast development in e-commerce and online shopping, these exciting developments has led to several new problems and challenges involving major internet users' data protection, payments security, and enforcement, information disclosure, e-contract validity, acceptable product enforcement and quality (Paynter& Lim, 2001).

The risk perceived by consumers to purchase online has become an important issue for research as it will impact directly to the attitude of customers to purchase online, and their attitude will have a major impact on the behaviour of online shopping (Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014). As mentioned by Almousa (2011), the risk

perceived in shopping online negatively affects the intention to buy the product online. Consumers might possibly experience a certain level of risk when they intend to spend over the internet. Yet, the perceived risks of online shopping are not fully identified as a whole since there are many online retailers that still pose a threat to online business, and this may affect retailers' transactions and performance. An understanding on the broader perception of young consumer risk will help marketers and retailers to bring about a positive image for consumers to participate in online shopping. To address these gaps, this paper studies the effects of consumer risk on online purchasing behaviour. Such an approach can assist to improve a more effective reduction plan in response to potential threats.

## 2. LITERATURE REVIEW

### 2.1 Risk Perception

Risk perception or perceived risk is an expectation of loss (Schierz, Schilke&Wirtz, 2010). The bigger the expected loss is, the higher the level of risk a user will see. Laroche, McDougall & Bergeron (2005) have stated that risk could be known as a negative impact on the expected and changed outcome of the purchased product. Meanwhile, Ko, Jung, Kim & Shim (2004) have defined risk as the consumer's perception of outcomes that are variable and contrary to the purchase of a product or service. The concept is comprised of two elements, namely uncertainty and consequence. Uncertainty can be known as the probability of an unfavourable outcome and consequently is defined as the benefit of the loss (Laroche *et al.*, 2005). Kim, Kim & Kumar (2003) add that the confidences of customers on the changes are derived from the transactions of online shopping. The

perception of risk plays an important role in determining the purchase intentions of consumers. Perceptions of consumer risk are important in determining their valuation and purchasing behaviour (Koet *al.*, 2004). Previous studies have shown that consumer perceived risk can negatively impact online consumer purchase intentions for apparel (Almoussa, 2011; Meskaran, Ismail & Shanmugam, 2013; Zhang, Tan, Xu & Tan, 2012). The greater the risk perception among consumers, the more it dissuades consumers from their buying intentions. As mentioned by Lee & Tan (2003), consumers at higher risk are less likely to buy products or services online. In conclusion, perceived risks have a negative impact on consumers' intention to buy over the internet (Liu & Wei, 2003). As Kim & Lennon (2013) point out, the higher the risk that online retailers are seeing, the less likely they are to persuade consumers towards online retailers. On the other hand, Masoud's (2013) study on the impact of perceived risk on online shopping intentions toward online shoppers in Jordan pertained to time risk, financial risk, information security risk, delivery risk and product risk. Correspondingly, the results of this study shown that product, information security, financial and delivery risk negatively affect online shopping intentions. It can be concluded that online sellers should be alert of the risk perception of their customers, and strategies need to be implemented to avoid these risks. In addition, Akhlaq & Ahmed (2015) have found that perceived risk has a negative effect on consumer intentions to purchase online. This indicates that the consumers' intention to buy online is suppressed when consumers realize the transaction is at risk (Akhlaq & Ahmed, 2015). In this regard, consumers will

have positive online shopping experience if they have lower risk levels on the internet. In the upcoming, the growth in purchase intentions will happen if lower levels of risk are perceived. Based on the literature, the theoretical framework for this study will be conceptualized based on the above outcomes, using financial risk, physical risk, time risk, social risk and functional risk. This is because variables that are widely recognized as consumer risk variables that hinder the intent of online purchases and experts in this field mostly study these variables. Therefore, the variables are suitable for this study.

## **2.2 Internet Shopping Behaviour**

Internet shopping behaviour is a type of attitude that involves the customers browsing the web to find, select and purchase goods and services, to meet their needs and wants. It comprises the responses and choices of consumer decisions. According to Close & Kukar-Kinney (2010), online purchase intent comes from the intention to purchase. Online purchase intention is the willingness of customers to buy over the internet (Meskaran *et al.*, 2013). The consumers' willingness to purchase products or services through the internet shop is defined as the intention to purchase online (Li & Zhang, 2002). In general, the behaviour of online shopping in a positive way will lead to the success of e-commerce transactions. Online shopping has become a new type of retail shopping worldwide. This is because customers will find it very easy, it has a wider selection, a very competitive price, better product information (including people reviews) and it is very easy to find a product. In the online store, consumers might develop little confidence and consider online shopping

to be high risk because of the less of face to face communication. Researchers recognize that the consumer's confidence in the ability of companies to meet their needs and wants is more than just believing, it is also the goodwill to influence the purchase intention of consumers.

### 3. CONCEPTUAL FRAMEWORK

The conceptual framework in Figure 1 is proposed according to past literature reviews. Past studies have indicated that risk perception plays a vital role in understanding the consumer's purchase intentions. Although lots of studies have been conducted in this context, many studies have been solved in their approach. Therefore, there is a need to understand the impact of perception of risk on the intention of buying through internet shopping. This study examines the influence of perceptions of young consumers risk perception on internet shopping to buy products and services in Malaysia. Based on the literature review of research variables and conceptual frameworks, the following hypotheses have been developed:

H1: Financial risk perception affects the internet shopping purchase behaviour of young consumer.

H2: Physical risk perception affects the internet shopping purchase behaviour of young consumer.

H3: Time risk perception affects the internet shopping purchase behaviour of young consumer.

H4: Functional risk perception affects the internet shopping purchase behaviour of young consumer.

H5: Social risk perception affects the internet shopping purchase behaviour of young consumer.

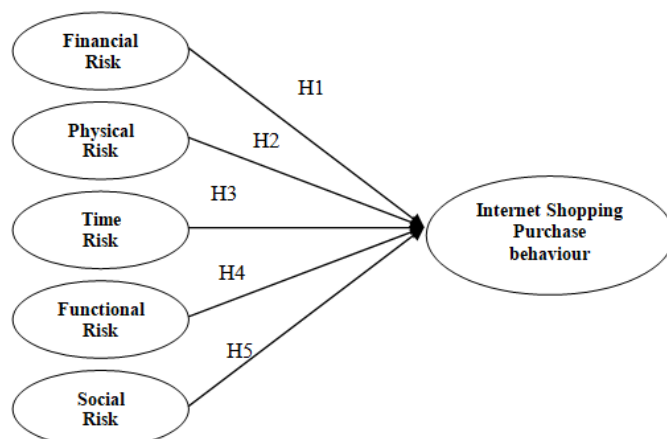


Figure 1: A conceptual framework

### 4. RESEARCH METHODOLOGY

#### 4.1 Methodology

A quantitative approach method was used for this study. This study engaged with a young consumer population aged 18-35 years old. Samples had been selected to meet certain criteria, for example, young users must be skilled in using internet-shopping to buy their products. The process of data collection was conducted in Kota Bharu Kelantan over the weekend. Young internet-shopping users were approached, and a total of 138 responses had been obtained using GPower sample size (Faul, Erdfelder, Lang, & Buchner, 2007). After data was collected, the data were analysed via partial least squares structural equation model (SEM-PLS). The detail of the data collection procedure is listed in table 1.

Table 1: Procedure of Data Collection

Population	Young Consumer
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<b>Size of Sampling</b>	138 Young Consumer
<b>Sampling Method</b>	Convenience Sampling
<b>Research Approach</b>	Quantitative Technique
<b>Data collection</b>	Self-Administered distribution of a questionnaire
<b>Data Analysis</b>	Smart-PLS Version 3

## 4.2 Instrumentation

The four sections of the questionnaire have been developed to gather data from young consumers. Part A of the questionnaire is the screening questions, part B's questions relate to the perceived tourist risk of the destination, and section C pertains to questions that are related to online purchasing behaviour. Last but not least section D is about demographic questions. The instrumentation for perceived risk and intention are adopted and adapted from prior studies, for instance Ariffin, Mohan&Goh (2018);Lim, Osman, Salahuddin, Romli&Abdullah (2016);and NikHashim, Yusoff, Awang, Aziz, Ramlee, Bakar, Noor andFatt (2019). A seven-point Likert scale has been used for this item to ensure that the research would gain in-depth info, ranging from (1 = very strongly disagree to 7 = very strongly agree).

## 4.3 Reliability and Validity

The study was testing the reliability and validity prior to the actual data collection process. The purpose of carrying out a reliability analysis was to examine the consistency and stability of the reactions from the respondents. According to Sekaran&Bougie (2016), there are four criteria that researchers can follow in improving reliability: (1) configuring all construction, (2) refining measurement, (3)

using several indicators, and (4) conducting pilot test.If the value exceeds0.7, it can be assumed that the items in the questionnaire are reliably measuring the constructs that are needed. Hence, the higher the score, the higher is the reliability of the scale that is generated. In relation to the validity of the content, the academic staff in technology from Universiti Malaysia Kelantan (UMK) was contacted to check the validity of the content. Table 2showsthe rules of thumb of the Cronbach's Alpha Coefficient Size.

Table 2: Rules of Thumb of Cronbach's Alpha Coefficient Size

Coefficient Alpha Range	Strength of Association
>0.90	Excellent
0.80 to < 0.90	Very Good
0.70 to < 0.80	Good
0.60 to < 0.70	Moderate
< 0.60	Poor

(Hair, Hult, Ringle, &Sarstedt, 2017).

## 5. FINDING AND DISCUSSION

### 5.1 Profile of Respondent

The demographics of the respondents are depicted in table 3. About 78 respondents were female (56.5%), and 60 respondents were male (44.4%). Pertaining to age, more than half of respondents were between 26 and 30 years old (63.8%), approximately 23.9% were 21-25 years old, and 7.9% were under 20 years old. Nearly more than 60% of the respondents are bachelor degree holders, followed byrespondents who hold a diploma or STPM (23.9%). Furthermore, 8% of the respondents are SPM holders and smaller percentages (4.3%) of respondents have a Bachelor's degree education background. The majority of the respondents were students (73.9%), followed by those who were self-employed(13.8%), the

professionals and those who were in management (7.2%). A minority of the respondents were housewives(5.0%).

Table 3: Demographics of consumer (n = 138).

Variables	Category	Frequency	Percentage (%)
Gender	Male	60	44.4
	Female	78	56.5
Age	18- 20	11	7.9
	21-25	33	23.9
	26-30	88	63.8
	31-35	6	4.3
Education	SPM	11	8.0
	Diploma/STPM	33	23.9
	Bachelor Degree	88	63.8
	Mater Degree	6	4.3
Occupation	Student	102	73.9
	Self-Employment	19	13.8
	Professional & Management	10	7.2
	Housewife	7	5.0

## 5.2 Hypotheses Testing and Path Analysis

Table 4 demonstrates the  $\beta$  coefficients of all the relationships between the model variables. Using the Partial least square, it is shown that only the H4 hypothesis is supported whereas the hypotheses H1, H2, H3, and H5 has been rejected. Financial, physical, time, functional and social risks are independent variables and online shopping purchase behaviour are dependent variables. As depicted in figure 2, functional risk has a major influence on online purchase behaviour ( $\beta = -0.459$ ,  $p < 0.05$ ), a P value less than 0.05. As a result, hypothesis 4 is supported. Furthermore, the results indicate that the sum of the effects on financial risk (H1), physical risk (H2), time risk (H3) and social risk (H5) is insignificant for online purchasing behaviour. The results of the

structural relationships and the importance of the path,  $\beta$ -values and their importance, p-values are presented in table 4.

Table 4: Hypothesis Testing Results

Hypothesis	Relationship	Beta Value ( $\beta$ )	p-value	Significant level	Result
H1	FR => IPB	-0.054	0.532	ns	Not Supported
H2	PR => RI	0.41	0.098	ns	Not Supported
H3	TR => RI	-0.142	0.197	ns	Not Supported
H4	FNR => RI	-0.459	0.0059	**	Supported
H5	SR => RI	0.113	0.187	ns	Not Supported

Note: Significant level = \*\*  $p \leq 0.05$ ; ns = not significant; FR = Financial Risk; PR = Physical Risk; TR = Time Risk; FNR = Functional Risk; SR = Social Risk.

## 6. CONCLUSION

In conclusion, previous studies have shown that perceptions of consumer risk are complex and multidimensional. The results from this study indicate that customers are at risk when they want to buy online; a number of samples- of financial, physical, time, social and functional risks, in this study confirm this. Meanwhile, the four risk factors that are found to be insignificant are financial, physical, time and social risk. Amongst these factors, functional risk is a

major contributor to consumers' cancellation of their online purchases. The results demonstrate that it is important to understand the factors that influence risk perception purchase intention of online users because they provide valuable information to online retailers in e-commerce activities. To enhance the generalisability of the findings replicated studies are proposed in future studies, where this study can be carried out with similar model studies between different settings, such as those that are unique in other countries and not just in the context of Kelantan. It is more beneficial to have a sufficient number of respondents per respondent. This study's emphasis is to present the different perceptions of the national group of consumers. In addition, the existing study has not been precisely designed to assess factors that are related to moderators and mediators of the perceptions of risk perception, and the intention to buy online. Upcoming studies may consist of the effects toward personality traits and previous experience in the model to understanding what way the variables can affect the simplification of both independent and dependent variables. The role of mediation, such as trust is also recommended for upcoming study. In short, it is hoped that the results will provide info and knowledge to Malaysian online retail participants, in particular, in designing their marketing strategies to attract consumers. For instance, the results of a upcoming study may show online stores where they can offer comprehensive info about their business and considerations of their safety policies, in order to prevent cyber scam. Online vendors may decrease the financial and other related risks that are involved by acknowledging

those risks and offering a trading plan for inappropriate products.

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## REFERENCES

- [1] Almousa, M. (2011), "Perceived risk in apparel online shopping: a multi-dimensional perspective", *Canada Social Science*, 7(2), 23-21.
- [2] Akhlaq, A. & Ahmed, E. (2015), "Digital commerce in emerging economies: factors associated with online shopping intentions in Pakistan", *International Journal of Emerging Markets*, 10(4), 634-647.
- [3] Ariff, M.S.M., Sylvester, M., Zakuan, N., Ismail, K. and Ali, K.M. (2014), "Consumer perceived risk, attitude and online shopping behaviour; empirical evidence from Malaysia", *IOP Conference Series: Materials Science and Engineering*, 58(1), IOP Publishing.
- [4] Ariffin, S.K., Mohan, T., & Goh, Y.N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, 12(3), 309-327
- [5] Bourlakis, M., Papagiannidis, S. & Fox, H. (2008), "E-consumer behaviour: past, present and future trajectories of an evolving retail revolution", *International Journal of E-Business Research*, 4(3), 64-76.
- [6] Close, A.G. & Kukar-Kinney, M. (2010), "Beyond buying: motivations behind consumers' online shopping cart use", *Journal of Business Research*, 63 (9/10), 986-992
- [7] Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research Methods*, 39(2), 175-191.



- [8] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling*. 2nd Ed. Thousand Oaks: Sage.
- [9] Internet World Stats (2018), "Internet usage in Asia", available at: [www.internetworldstats.com/stats3.htm](http://www.internetworldstats.com/stats3.htm)
- [10] Kim, J. & Lennon, S.J. (2013), "Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: based on the stimulus-organism-response model", *Journal of Research in Interactive Marketing*, 7(1), 33-56.
- [11] Kim, Y.K., Kim, E.Y. and Kumar, S. (2003) Testing the Behavioral Intentions Model of Online Shopping for Clothing. *Clothing and Textiles Research Journal*, 21, 32-40.
- [12] Ko, H.J., Jung, J.M., Kim, J.Y. and Shim, S.W. (2004), "Cross-cultural differences in perceived risk of online shopping", *Journal of Interactive Advertising*, 4(2), 20-29.
- [13] Laroche, M., Yang, Z., McDougall, G.H.G. & Bergeron, J. (2005), "Internet versus bricks-and-mortar retailers: an investigation into intangibility and its consequences", *Journal of Retailing*, 81(4), 251-267.
- [14] Lee, K.S. & Tan, S.J. (2003), "E-retailing versus physical retailing: a theoretical model and empirical test of consumer choice", *Journal of Business Research*, 56(11), 877-885.
- [15] Li, N. & Zhang, P. (2002), "Consumer online shopping attitudes and behavior: an assessment of research", *AMCIS 2002 Proceedings*, 74.
- [16] Lim, Y.J., Osman, A., Salahuddin, S.N., Romli, A.R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention, *Procedia Economics and Finance*, 35, 401 – 410
- [17] Liu, X. & Wei, K.K. (2003), "An empirical study of product differences in consumers; e-commerce adoption behaviour", *Electronic Commerce Research and Applications*, 2(3), 229-239.
- [18] Masoud, E.Y. (2013), "The effect of perceived risk on online shopping in Jordan", *European Journal of Business and Management*, 5(6), 76-87.
- [19] NikHashim, N.A.A., Yusoff, A.M., Awang, Z., Aziz, R.C., Ramlee, S.I.F., Bakar, N. A., Noor & Fatt, B.S. (2019). The Effect of Domestic Tourist Perceived Risk on Revisit Intention in Malaysia. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(10), 4591-4596
- [20] Meskaran, F., Ismail, Z. & Shanmugam, B. (2013), "Online purchase intention: effects of trust and security perception", *Australian Journal of Basic and Applied Sciences*, 7(6), 307-315.
- [21] Paynter, J. & Lim, J. (2001), "Drivers and impediments to e-commerce in Malaysia", *Malaysian Journal of Library and Information Science*, 6(2), 1-9.
- [22] Schierz, P.G., Schilke, O. & Wirtz, B.W. (2010), "Understanding consumer acceptance of mobile payment services: an empirical analysis", *Electronic Commerce Research and Applications*, 9(3), 209-216.
- [23] Sekaran, U., Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach*. United Kingdom: John Wiley & Sons, Ltd, Publication.
- [24] Statista (2018), "E-commerce worldwide. Statistics and facts", available at [www.statista.com/topics/871/online-shopping/](http://www.statista.com/topics/871/online-shopping/)
- [25] Zhang, L., Tan, W., Xu, Y. & Tan, G. (2012), "Dimensions of consumers' perceived risk and their influences on online consumers' purchasing behaviour", *Communications in Information Science and Management Engineering*, 2(7), 8-14.