

KEY DRIVERS OF PURCHASE INTENTION AMONG UNDERGRADUATE STUDENTS A PERSPECTIVE OF ONLINE SHOPPING

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Abstract

Electronic commerce is gaining attention among the university students. The aim of this research is to study the key drivers of online shopping intention among undergraduate students in Malaysia. Several factors such as perceived convenience, website attractiveness, perceived riskiness and initial trust were analyzed. The number of respondents consisted of 220 which were randomly chosen from the higher learning institutions in Kedah and Perlis, Malaysia but only 200 questionnaires were obtained. The results indicated that perceived convenience, website attractiveness and perceived riskiness were found significantly influence online shopping intention but initial trust is not significantly influence online shopping intention. It was suggested that future research can be done in larger sample size which allowed for statistical analyses and models such as Technology Acceptance Model (TAM) or behavioral model could also be included in future research.

Keywords: perceived convenience, website attractiveness, perceived riskiness, initial trust, purchase intention, TAM

INTRODUCTION

In this technology era, internet is growing its roles in affecting both local and international organization to achieve its business success. Therefore, many companies caught on this popular trend and started to develop marketing strategies that can make profit and in the same time, increase companies' sales. This supported study by Wong (2014) and Waters (2014) which indicated that the main concerns of online business are to boost the online sales and getting traffic to the e-store.

Consumers that able to access to the internet can shop online wherever they are. A related study by Hana, Mike and Parvaneh (2013) showed that global online retail sales were increased 17 percent annually from year 2007 to 2012. Moreover, busy lifestyle forces the consumers to go online to purchase goods in some ways. Thus, in order to meet with the customers' busy lifestyle, many companies attempt to expand their business to electronic platform that able to access to large group of customers compared to invest in the physical store which facilitating only local customers to visit the store.

According to Yulihasri, Islam and Daud (2011), Internet is an alternative platform which is more convenient compared to conventional shopping which usually induced to anxious, traffic jam, time consuming, limited parking space and long counter queue. In Malaysia, government put many efforts to promote e-commerce to Malaysian. Among the efforts was providing broadband to all new residences (Performance Management & Delivery Unit, 2010), one tele-centre in each sub-district (Economic Planning Unit, 2010) and ICT training workshops (Malaysian Communications and Multimedia Commission, 2012).

Furthermore, university students are those have higher education, expose more to technology and full of curiosity (Peng, Wang, & Cai, 2008). Moreover, university students are occupying large proportion of internet users compared to other group of consumers. A related study by Wan, Nakayama, & Sutcliffe (2012) indicated that older generation probably do not purchase online as they are less familiar and slower in adaption to the online environment compared to younger generation.

In that sense, the researchers chose to conduct a study on university students' purchase intention towards online shopping as they usually perform what they intend to do. Drivers of purchase intention towards online shopping among the university students are important to know as companies can predict how the prospect customers think of e-commerce before implement the marketing strategies and the companies can target on specific group of customers rather than broader group of customers which required huge investment.

In addition, companies can adjust their marketing strategies in tandem with the predictor that drive university students to shop online. Consequently, the researchers will focus in several

factors which are perceived convenience, website attractiveness, perceived riskiness and initial trust and study on how these factors influence purchase intention among university students in Malaysia. This study is expected to provide useful insights to both the local and international companies to better understand their prospect customer particularly in Malaysia and as a guideline to the consumers before perform online shopping.

LITERATURE REVIEW

Purchase Intention

Purchase intention may precede future purchase behaviour (Afendi, Azizan, & Darami, 2014). It was gauged by the possibility or likelihood that consumers would engender a specific purchasing behavior either purchase or not purchase the brand (Perner, 2008; Wu et al, 2014). Online retailers can develop effective and efficient marketing strategies to attract new and potential customers if they identify the factors that drive purchase intention (Thamizhvanan & Xavier, 2013). Purchase intention can be directly and indirectly influenced by perceived convenience (Sultan & Uddin, 2011; Chang, Han, & Yan, 2009), website attractiveness (Lee, Yurchisin, & Lin, 2010; Cao, Zhang, & Seydel, 2005; Alam, Bakar, Ismail, & Ahsan, 2008; Hu, 2010; Sultan & Uddin, 2011), perceived riskiness (Peng, Wang, & Cai, 2008; Heijden, Verhagen, & Creemers, 2003; Hidayanto, Saifulhaq, & Handayani, 2012; Lai & Wang, 2012), initial trust (Eastlick & Lotz, 2011)(Chen & Barnes, 2007).

Perceived Convenience and Purchase Intention

Perceived convenience when shopping online refers to how likely the customers can access the website to search for the product information, purchase a product with less physical effort and flexibility of patronize period (Sultan & Uddin, 2011). Rohm and Swaminathan (2004) asserted that online shopping saved time during the purchasing of goods and it can eliminate the travelling time required to go to the traditional store. This statement was supported by Atcharyachanvanich, Okada, & Sonehara (2007) that consumers can save time by shopping through the website. Furthermore, the way of receiving goods and delivery speed are also the important elements to describe perceived convenience of online shopping. According to Chang, Han and Yan (2009), perceived convenience has significant influence on online purchase intention. This supported statement is proven by Sultan and Uddin (2011) that convenience was one of the important reasons for Gotland consumers to perform online shopping. Thus, hypothesis is proposed as below:

H₁: Perceived convenience has a significant influence to purchase intention toward online shopping among undergraduate students.

Website Attractiveness and Purchase Intention

Website attractiveness comprised of the issues of whether the web pages are interesting, informative and high in website quality (Cao, Zhang, & Seydel, 2005). Website quality had profound influence on the purchase intention toward online shopping (Kim & Jones, 2009; Hu, 2010). Website design, website reliability, website customer service and website security were the most attractive features which influenced the perception of the consumers toward online shopping (Shergill & Zhaobin, 2005). A related finding by Kamariah and Salwani (2005) showed that the higher the website quality, the higher consumer intended to shop from internet. A supported statement by Lee, Yurchisin, & Lin (2010) found that website attractiveness indirectly influenced online purchase intention by the mediating effect of website identification and website trust. However, there were evidence showed that Malaysian young consumers who were browsing internet perceived attractiveness of online website as less important factor that would likely to influence their online shopping behaviour (Alam, Bakar, Ismail, & Ahsan, 2008). But since the study in Malaysia was conducted on online shopping behavior, the results may be different for online shopping intention in current year. Therefore, hypothesis is proposed as follow:

H₂: Website attractiveness has a significant influence to purchase intention toward online shopping among undergraduate students.

Perceived Riskiness and Purchase Intention

Previous literature showed that perceived riskiness is a key determinant that influenced online purchase intention (Lwin & Williams, 2006). Perceived riskiness refers to the risk that a customer assumed that will influence their purchase intention and decision process. Perceived riskiness is an important element that determined the customers' decision making process (Peng, Wang, & Cai, 2008). A related study by Tan (1999) showed that customers purchase from an online environment is of higher risk than in the physical environment. Most of the study showed that perceived riskiness negatively influence online purchase intention (Peng, Wang, & Cai, 2008; Heijden, Verhagen, & Creemers, 2003; Hidayanto, Saifulhaq, & Handayani, 2012; Lai & Wang, 2012). By referring to previous researches, the higher the risk of online shopping, the lower the intention to purchase online and adversely, the lower the risk of online shopping, the higher intention to purchase online. Therefore, hypothesis is presented as below:

H₃: Perceived riskiness has a significant influence to purchase intention toward online shopping among undergraduate students.

Initial Trust and Purchase Intention

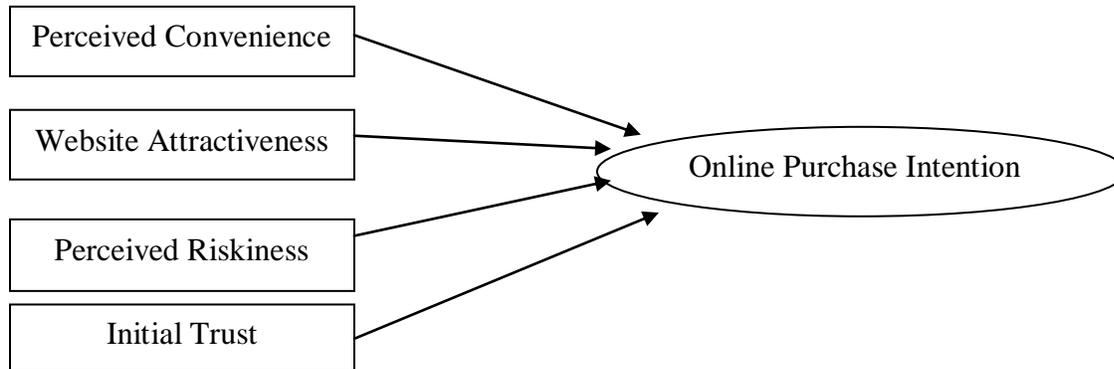
In the online environment, trust was built primarily in a person-to-website manner rather than person-to-person communication, mediated through technology (Limbu et al, 2012). Consumers that become more aware and conscious towards the online fraudulence tend to questioning and avoiding goods that sold in online platform. Finding by civil consulting reported that prevention of fraudulent by online sellers is a must to boost the confidence among online shoppers to shop online (Civil Consulting, 2011). Hence, online sellers have to ensure the buying process is safe and secure to their potential customers. Both initial trusting beliefs and intentions led to greater online purchase intention (Eastlick & Lotz, 2011). The consumer's perception of an online shopping website's integrity is thought to be another important antecedent of trust (Jiang, Chen, & Wang, 2008). According to Limbu et al (2012), trust promoted the relationship process and affect customers' tendency to respond positively to a service provider that will then encouraged their purchase intention to the web-store. A related finding by Chen & Barnes (2007), Heijden, Verhagen, & Creemers (2003) and Thamizhvanan & Xavier (2013) showed that initial trust had positive impact on online purchase intention. Therefore, hypothesis is presented as below:

H₄: Initial trust has significant influence to purchase intention toward online shopping among undergraduate students.

RESEARCH METHODOLOGY

The proposed research method involved a survey of undergraduate students in Malaysia to investigate how perceived convenience, website attractiveness, perceived riskiness and initial trust influence online purchase intention. Quantitative research by distributed questionnaires is conducted by asking the respondents how the factors influence on their online purchase intention. The close-ended questionnaires were randomly distributed to selected Internet users both experienced and no experienced online shoppers to collect the information needed in the study. Convenience sampling is used because it involved drawing samples that are easily accessible and willing to participate in a study (Charles & Fen, 2007). The number of the sample taken from the undergraduate students is consisted of 220 respondents which were randomly chosen from the higher learning institutions. 120 sets of questionnaires were distributed to the university students in University Malaysia Perlis (UniMAP) and University Utara Malaysia (UUM) but only 100 sets were successfully collected back. Another 100 sets were distributed by sending a link to the questionnaire through social networking sites. The research used five-point Likert scale where the respondents were presented with a continuous scale, whereby 1 was strongly disagree to 5 was strongly agree in stating their responses.

Figure 1: Theoretical Framework



ANALYSIS & FINDINGS

A total of 220 questionnaires were distributed and 200 questionnaires were received yielding 91 percents of response rates. Among the respondents, there were 79(39.5%) of male respondents and 121 (60.5%) of female respondents, ethnic group which presented 65 (32.5%) of Malay, 113 (56.5%) of Chinese, 16 (8.0%) of Indian and 6 (3%) of others including Siamese and other international students

Table 1: Demographic profile

Variables	Categories	Frequency	Percentage (%)
Gender	Male	79	39.5
	Female	121	60.5
Ethnic	Malay	65	32.5
	Chinese	113	56.5
	Indian	16	8.0
	Others	6	3.0
Year of Study	First	18	9.0
	Second	40	20.0
	Third	124	62.0
	Forth	18	9.0
Experience in Online Shopping	Yes	137	68.5
	No	63	31.5

The results showed that respondents were consists of 18 (9.0%) first year students, 40 (20%) second year students, 124 (62%) third year students and 18 (9.0%) forth year students. Furthermore, a sizeable number 137 (68.5%) of the respondents are involved in the online shopping while the other 63 (31.5%) of the respondents never involved in the online shopping.

Descriptive Statistics

Table 2 shows the mean for all variables which ranged between 3.2558 and 3.8483. Mean for online purchase intention is 3.2558, perceived convenience is 3.8483, website attractiveness is 3.7783, perceived riskiness is 3.6975 and initial trust is 3.7450 indicates the respondents average agreed with the questions in general.

The standard deviation value for online purchase intention is 0.78028, which is large from mean value and this indicates standard deviation for online purchase intention is less concentrate. Meanwhile, standard deviation for perceived convenience is 0.65296, website attractiveness is 0.62698, perceived riskiness is 0.59028 and initial trust is 0.56031. For that value, responses from respondent are less concentrate because mean is around 0.369 to 3.8483.

Table 2: Descriptive Analysis

Factors	Mean	Standard Deviation
Online Purchase Intention	3.2558	0.78028
Perceived convenience	3.8483	0.65296
Website Attractiveness	3.7783	0.62698
Perceived Riskiness	3.6975	0.59028
Initial Trust	3.7450	0.56031

Reliability Analysis

The number items of each variables and the Conbach Alpha were showing in Table 3. In this study, any item that was not significant will be deleted in order to obtain the highest reliability of the measurement. The reliability coefficient is suggested to be 0.70 or higher (Wells & Wollack, 2003; Lehman, 2005).

Thus, all variables were accepted according to Table 3, which ranging from 0.703 to 0.881 which the dependent variable (Online purchase intention) obtained the highest reliability coefficient.

Table 3: Results of Reliability Analysis

Variables	Number of Items	Cronbach Alpha
Online Purchase Intention	6	0.881
Perceived convenience	6	0.825
Website Attractiveness	6	0.790
Perceived Riskiness	6	0.798
Initial Trust	5	0.703

Regression Analysis

As shown in Table 4, the standardized coefficient is 0.448 for perceived convenience, website attractiveness is 0.213, perceived riskiness is -0.191, and initial trust is -0.001. The value of R-Square indicates that 33% of the variance in online purchase intention can be predicted from the variables of perceived convenience, website attractiveness, perceived riskiness and initial trust. The significant F value of 0.000 which is significant at $\alpha = 0.05$. The Durbin-Watson value is shows more than two (2.136) indicated that there was no auto correlation problem of error terms here. From table 4, perceived convenience $t = 6.798$, $p = 0.000$ is significant, website attractiveness $t = 3.253$, $p < 0.05$ is significant, perceived riskiness $t = -2.852$, $p < 0.05$ is significant and initial trust $t = -0.021$, $p > 0.05$ is not significant as $\alpha = 0.05$ will be used throughout this study.

As the conclusion, perceived convenience, website attractiveness and perceived riskiness have significant influence on online purchase intention except initial trust.

Table 4: Result of Regression Analysis (Dependent variable: Purchase Intention)

Variables	Beta	t-Ratio	Sig.t
Perceived convenience	0.448	6.798	0.000
Website Attractiveness	0.213	3.253	0.001
Perceived Riskiness	-0.191	-2.852	0.005
Initial Trust	-0.001	-0.021	0.983
R Square = 0.333			
Durbin-Watson =2.136			
F = 24.301			
Sig.F = 0.000			

Table 5: Summary of hypotheses testing

No of Hypothesis	Statement of Hypothesis	Results
H1	Perceived convenience has a significant influence to purchase intention toward online shopping among undergraduate students.	Accepted
H2	Attractiveness has a significant influence to purchase intention toward online shopping among undergraduate students.	Accepted
H3	Perceived riskiness has a significant influence to purchase intention toward online shopping among undergraduate students.	Accepted
H4	Initial trust has a significant influence to purchase intention toward online shopping among undergraduate students.	Rejected

DISCUSSION AND CONCLUSION

From the finding of the study (see Table 5), perceived convenience has a significant influence towards online purchase intention among undergraduate students. The result was supported by Chang, Han and Yan (2009) which proposed that perceived convenience has significant influence on online purchase intention and Sultan and Uddin (2011) demonstrated that perceived convenience was one of the important reasons for Gotland consumers to perform online shopping. The result showed that there is also significant influence of website attractiveness towards online purchase intention. This finding is in accordance with some previous studies by Kim & Jones (2009), Hu (2010) and Kamariah and Salwani (2005) that website quality had significant influence on online purchase intention. Website quality is one of the important criteria for the website to become attractive (Cao, Zhang & Seydel, 2005).

Another result indicated that perceived riskiness has significant effect to purchase intention toward online shopping was accepted as previous studies found that perceived riskiness has significant influence on online shopping intention (Lwin & Williams, 2006; Peng, Wang & Cai, 2008). However, initial trust is not significant to influence the purchase intention toward online shopping among the undergraduate students. The result is opposed to the previous research that found initial trust as important factor that could influence online purchase intention (Eastlick & Lotz, 2011; Limbu et al, 2012; Heijden, Verhagen & Creemers, 2003; Thamizhvanan & Xavier, 2013). It could be due to cultural differences of different countries as the Malaysian is averse to change (Harn, Khatibi, & Ismail, 2006). Thus, they will maintain on what they normally adopt to do shopping at the physical store compared to online store that is more risky.

LIMITATIONS

There are some limitations in this research including the sample size itself is relatively small and a larger sample size is desirable to accurately evaluate the perception of the Malaysia's undergraduate students towards online shopping. Therefore, it is suggested that future research can be done in larger sample size that allows higher response rate for more robust statistical analyses including structural equation modeling. Moreover, to clarify the factors influence online shopping decision process, some model such as Technology Acceptance Model (TAM) or behavioral model could also be used in future study. Despite the limitation of the study, the findings from this study can be used as a useful guideline to better understand the online shopping phenomenon in Malaysia.

REFERENCES

- Afendi, N. A., Azizan, F. L., & Darami, A. I. (2014). Determinants of Halal Purchase Intention: Case in Perlis. *International Journal of Business and Social Research*, 4(5), 118-123.
- Alam, S. S., Bakar, Z., Ismail, H. b., & Ahsan, N. (2008). Young Consumers Online Shopping: An Empirical Study. *Journal of International Business*, 5(1), 81-98.
- Atcharyachanvanich, K., Okada, H., & Sonehara, N. (2007). Factors Affecting Customers' Intention to Repurchase in Internet Shopping: Extrinsic Benefits and Intrinsic Benefits. 3457.
- Cao, M., Zhang, Q., & Seydel, J. (2005). B2C e-Commerce Web Site Quality: An Empirical Examination. *Industrial Management & Data Systems*, 105(5), 645-661.
- Chang, Y., Han, D., & Yan, J. (2009). The Impact of B2C Website Design Features on Consumers' Purchase Intention. *2009 International Conference on Networks Security, Wireless Communications and Trusted Computing* (pp. 17-20). Wuhan: Institute of Electrical and Electronics Engineers.
- Charles, T., & Fen, Y. (2007, January). Mixed Methods Sampling A typology With Examples. *Journal of Mixed Methods Research*, 1(1), 77-100.
- Chen, Y.-H., & Barnes, S. (2007). Initial Trust and Online Buyer Behavior. *Industrial Management & Data Systems*, 107(1), 21-36.
- Civil Consulting. (2011). *Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods*. Berlin: Civil Consulting.
- Eastlick, M. A., & Lotz, S. (2011). Cognitive and institutional predictors of initial trust toward an online retailer. *International Journal of Retail & Distribution Management*, 39(4), 234 - 255.
- Economic Planning Unit. (2010). *Tenth Malaysia Plan 2011-2015*. Putrajaya: Economic Planning Unit.
- Hana, B.-S., Mike, M., & Parvaneh, N. (2013). *The 2013 Global Retail E-Commerce Index: Online Retail is Front and Center in the Quest for Growth*. New York: ATKearney.
- Harn, A. C., Khatibi, A., & Ismail, H. (2006). E-Commerce: A Study on Online Shopping in Malaysia. *Journal of Social Science*, 13(3), 231-242.
- Heijden, H. v., Verhagen, T., & Creemers, M. (2003). Understanding Online Purchase Intentions: Contribution from Technology and Trust Perspectives. *European Journal of Information Systems*, 48.
- Hidayanto, A. N., Saifulhaq, H., & Handayani, P. W. (2012). Do Consumers Really Care on Risks in Online Shopping? An Analysis from Indonesian Online Consumers. *International Conference on Management of Innovation and Technology* (pp. 331 - 336). Sanur Bali: Institute of Electrical and Electronics Engineers.
- Hu, Y. (2010). An Investigation on the Linkage between Purchase Intention and Service Quality in the E-commerce Context. *2010 International Conference on Innovative Computing and Communication and 2010 Asia-Pacific Conference on Information Technology and Ocean Engineering* (pp. 304-307). Macao: Institute of Electrical and Electronics Engineers.
- Jiang, J.-C., Chen, C.-A., & Wang, C.-C. (2008). Knowledge and Trust in E-Consumers' Online Shopping Behavior. *International Symposium on electronic Commerce and Security* (pp. 652-656). IEEE Computer Society.
- Kim, S., & Jones, C. (2009). Online Shopping and Moderating Role of Offline Brand Trust. *International Journal of Direct Marketing*, 282-300.
- Lai, E., & Wang, Z. (2012). An Empirical Research on Factors Affecting Customer Purchasing Behavior Tendency During Online Shopping. (pp. 583-586). Institute of Electrical and Electronics Engineers.
- Lee, Z. C., Yurchisin, J., & Lin, C. T. (2010). The Impact of Website Attractiveness, Consumer-Website Identification, and Website Trustworthiness on Purchase Intention. *9th IEEE/ACIS International Conference on Computer and Information Science* (pp. 301-306). Yamagata: Institution of Electrical and Electronics Engineers.

- Lehman, A. (2005). *JMP for Basic Univariate and Multivariate Statistics: A Step-by-step Guide*. SAS Institute.
- Limbu, Y. B., Wolf, M., & Lunsford, D. (2012). Perceived Ethics of Online Retailers and Consumer Behavioral Intentions: The Mediating Roles of Trust and Attitude. *Journal of Research in Interactive Marketing*, 6(2), 133-154.
- Lwin, M. O., & Williams, J. D. (2006). Promises, Promises: How Consumers Respond to Warranties in Internet Retailing. *Journal of Consumer Affairs*, 40(2), 236-260.
- Malaysian Communications and Multimedia Commission. (2012). *Annual Report 2012*. Cyberjaya: Malaysian Communications and Multimedia Commission.
- Nik Kamariah, M. N., & Siti Salwani, A. M. (2005). Determinants of Online Shopping Intention. 167-172.
- Peng, H., Wang, C., & Cai, J. (2008). An empirical investigation on the adoption of online hopping of university students in China. *International Seminar on Business and Information Management* (pp. 498-501). Wuhan: Wuhan University.
- Performance Management & Delivery Unit. (2010). *Chapter 13: Communications Content and Infrastructure-Driving the Transition to a Knowledge-Based Society*. PEMANDU.
- Perner, L. (2008). *Consumer Behavior: The Psychology of Marketing*. Retrieved from Consumer Psychologist Website: <http://www.consumerpsychologist.com/index.html>
- Rohm, A. J., & Swaminathan, V. (2004). A Typology of Online Shoppers based on Shopping Motivation. *Journal of Business Research*, 748-757.
- Shergill, G. S., & Zhaobin, C. (2005). Web-based shopping: Consumers' Attitudes towards Online Shopping in New Zealand. *Journal of Electronic Commerce Research*, 6(2), 79-94.
- Sultan, M. U., & Uddin, M. N. (2011). Consumers' Attitude towards Online Shopping: Factors Influencing Gotland Consumers to Shop Online.
- Tan, S. J. (1999). Strategies for reducing consumers' risk aversion in Internet shopping. *Journal of Consumer Marketing*, 16(2), 163-180.
- Thamizhvanan, A., & Xavier, M. (2013). Determinants of Customers' Online Purchase Intention: An Empirical Study In India. *Journal of Indian Business Research*, 5(1), 17-32.
- Wan, Y., Nakayama, M., & Sutcliffe, N. (2012). The Impact of Age and Shopping Experiences on the Classification of Search, Experience, And Credence Goods in Online Shopping. *Information Systems and eBusiness Management*, 1-18.
- Waters, S. (2014). *10 Internet Marketing Tips for Retailers*. Retrieved from About.com Retailing Website: <http://retail.about.com/od/ecommerce/tp/internet-marketing-tips.htm>
- Wells, C. S., & Wollack, J. A. (2003, November). An Instructor's Guide to Understanding Test Reliability. 1-7.
- Wong, C. (2014, March 19). *Understanding Online Merchants in Malaysia*. Retrieved May 18, 2015, from ecommercemilo: <http://www.ecommercemilo.com/2014/03/ecommerce-infographic-malaysia-understanding-online-merchants.html#.U3mTA9KSznh>
- Wu, W.-Y., Lee, C.-L., Fu, C.-S., & Wang, H.-C. (2014). How Can Online Store Layout Design and Atmosphere influence Consumer Shopping Intention on Website. *International Journal of Retail & Distribution Management*, 42(1), 4-24.
- Yulihhasri, Ku Amir, K. D., & Md. Aminul, I. (2011, February). Factors that influence Customers' Buying Intention on Shopping Online. *International Journal of Marketing Studies*, 3(1), 128-139.