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Factors Affecting Attitude Towards Online Shopping: A Case Study Among TVET University Students in The Southern Region of Malaysia

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Abstract: The development of the online shopping in Malaysia is expanding each year as a type of e-commerce, turning to a main concern by the government. Students have been recognized as an important role in building and maintaining this type of shopping. Therefore, the purpose of this study was to identify the factors affecting university students' attitude towards online shopping. The second objective was to determine the relationship between factors such as quality, prices, saving time, wider selection and trust and the attitude toward online shopping. One variable from the Theory of Planned Behavior (TPB) was adapted in this study. This study followed the quantitative method, utilizing questionnaires for data collection purposes. The respondents of this study were the university students. The data then was analyzed using the Statistical Package for Social Science (SPSS). The findings of this study showed that wider selection of products, saving time, cheaper prices and trust were the most influential factors that affect the students' attitude towards online shopping. The findings also showed that all the independent variables are correlated with the dependent variable.

Keywords: Online shopping, attitude, quality, prices, saving time, wider selection and trust

1. Introduction

JARING is the first Malaysian network access supplier (ISP) in 1990 and later TM Net in 1995 (Cheah, 2023; Goi, 2022). From that time onwards, the usage of internet is expressing a huge expanding each year. The internet usage for the commercial purposes has started in 1993 with the development of the World Wide Web (Kempegowda & Chaczko, 2018; Vladimir, 1996). The rise of the Internet and World Wide Web (WWW) as a vehicle for business exchanges, web-based business has started to become common turning into the main concern of the global communities (Harn *et al.*, 2006). This important shift changed the way the sellers and the clients interact and conduct electronic transactions; the process has become easier, simpler, and cheaper compared to the traditional trading (Margherio, 1998).

The internet has recently become more than a social media; it is the means of doing business as a new trend of shopping in the global market (Nyagadza, 2020). Online shopping is a type of electronic trading that gives customers the chance to get their goods or services from the seller over the internet (Purwanto, 2022). With the advanced development in the internet, the physical shops have become online, and online shopping is no longer rare (Manwaluddin *et al.*, 2018). According to a survey that was done in France, Germany, UK and US by Periscope by

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Mckinsey (2018), most of the consumers around the world are reaching and purchasing packaged goods through the internet.

Today, online shopping is the trend of shopping in all the countries, both developed and developing. The number of internet users in Malaysia has grown to 87% at the national level (Malaysian Communications and Multimedia Commission, 2018); and Malaysia has the highest penetration of online shoppers in Asian countries, 67% of Malaysians online (The Sundaily, 2017). Attitude is the most important variable that influence the students' intention, which in return translated into the actual action, the online shopping. Students' attitude is affected in many ways. For example, students will have good impression when they find that online shopping is cheaper than the physical stores. This is what will give them good attitude toward the online shopping. Moreover, since the e-commerce market is growing, there is a need to identify the factors that play an important role in this development and determine the relationship between the factors and the attitude toward online shopping for the online sellers and the government to be under their concern.

This type of shopping is gaining popularity among the university students. Both undergraduate and postgraduate students are impacted by many factors like quality, prices, saving time, wider selection, and trust when ordering online. Online purchasing is cheaper than the traditional shopping since the online venders do not need the expenses of the normal operations done by the offline vendors. Furthermore, online shopping minimizes the transaction costs which is an advantage for the buyer and seller (Yuen *et al.*, 2019; Chandra & Sinha, 2013). Some product quality during the online purchasing is different from the real quality needed by the students. This lowers the level of trust in the online stores. The majority of the students are affected by the late delivery of the products. It happens that sometimes a student orders a product and discover that the product has been delivered to the wrong place or branch. This certainly result in the student losing his time waiting and contacting with the online vendor.

Moreover, online shopping provides students with a wider selection of products. This makes students confused for selecting the suitable product they are looking for. A recent study conducted in 2017 by Citizens Advice on some 2,000 online shoppers shows that although customers are satisfied with the online shopping, about 66% of the customers have had at least one issue with a product delivery in the previous 12 months (Consumer Rights for Parcels Delivery, 2017). Based on the problems mentioned above, there is a need to investigate whether or not these issues influence attitudes of university students toward online shopping. This paper will fill the gap found in literature review. It focuses on the five factors because the studies on factors that influence the attitude to purchase online among the university student consumers are still lacking.

Moreover, despite having a considerable number of Internet users, students are using online purchase only for small number of categories the most like booking hotels and flights. Thus, it is important to understand the factors that influence the Online shopping which is still lacking. Delafrooz *et al.* (2010) stated that the research on the attitudes toward online shopping is still lacking since the e-shopping is still the early stages. "The influence of the attitude was by far the most influential variable and the focus of future studies should be on the underlying factors of the attitude", (Ramli, 2021). More importantly, Malaysia is one of the pioneers' countries in Asia that has stablished a ministry that is related to the electronic trade development, and the popularity of shopping online is rapidly increasing. Despite this, the number of the companies which adopt e-commerce is still low. Thus, this paper aims to determine the factors affecting the university students' attitude toward online shopping.

2. Review of Literature

Online Buying has been one of the subject matters for researchers in both Marketing Sciences and IT as the e-business is expanding (Bhatti & Akram, 2020) stated that online shopping nowadays is an important part of our life because of the technological advances in internet and our hectic life. This has resulted in customers going for easier, cheaper, and secure shopping. Online shopping has provided many advantages as it saves their valuable time and give them the chance to select from a range of products with the best price. Out of the many research in the related area, some of the literature related to this study is discussed here.

Kaur and Kochar (2018) attempted to analyze the factors influencing the behavior of customers toward online shopping. It was found that customers have more satisfaction with e-shopping because they are able to shop in any place and anytime with safety and ease of payment options. They are also able to compare the available products by saving their time and money. The provided information of online product facilitates the process of comparison of the products content and quality of website and the security measures taken by the retailors all affect the attitude of customers to purchase online. Jadhav and Khanna (2016) have conducted a qualitative analysis on the factors affecting college students' purchasing behaviors in Mumbai, India. The most affecting variables for online purchasing were determined as variety of products, low price, promotions, comparison, convenience, ease of use, attitude, time saving, trust and availability. The results matched the outcomes of Usha Vaidehi (2014) as they both found that cheap products and saving time are the most influential variables. Budiharseno (2017) conducted a study on the college student in South Korea trying to explore the factors influencing the internet buying among the respondents. The respondents agreed that internet shopping is cheaper than traditional shopping. Moreover, all the respondent satisfaction with the time efficiency of internet shopping since the students are having many classes to attend.

The study of Delafrooz *et al.* (2010), has identified the items that affect the attitudes of the students when shopping online in Malaysia by conducting a survey and based on literature. It was revealed that customers' attitudes toward online shopping is affected by many factors like convenience, wider selection and price. According to the same study, the graduate students' attention to internet shopping is relatively high and the attitude of the respondents is also positive. Kim (2010) found out that privacy, security and trust, time saving, ease of use, convenience, enjoyment provided by shopping, company reputation and tactility are the most significant factors that influenced the customers who buy online.

Other researchers have also concentrated on other factors which affect the behaviors of online shopping customers. The paper of Gupta and Khincha (2015) aimed at studying the factors that affect the customer behavior. This paper has concluded that time saving, and delivery facility are what influence the customers and make them happy. Choudhury and Dey (2014) studied the factors affecting online shopping attitude among the university students. The researcher has studied factors of gender, internet literacy, and the price. The results showed that there is no significant impact of these factors on the attitude of students. Another factor was studied is the quality. This factor prevents the customers from online shopping as they cannot touch the products. The study recommended that the online sellers should provide cheaper prices to promote the online shopping.

3. Methodology

This study is quantitative in nature because it aimed at studying the factors affecting the university students' attitude towards online shopping. The random sampling was utilized, and the unit of analysis is individuals (the university students), both the undergraduate and postgraduate. Data was collected from September 2019 until October 2019. Based on Morgan (1970) model, the sample size of this research was determined as 375. This research depends on two main methods to get the data. The first and main method was the hard copy questionnaires that were distributed at the university (286 questionnaires), out of which 280 questionnaires were returned. The second method was the online soft copy questionnaires. Sum of 90 questionnaires were collected from the second method. Only 6 questionnaires were not accepted as it seems that the respondents did not have the interest to fill them out completely. In total, 369 sets of questionnaires were returned and represented about 98.7%. "IBM Statistical Packages for Social Science (SPSS) Statistics" version 22.0. was used to analyze the data. The types of analysis methods used in conducting this study includes pilot test, normality and validity analysis, descriptive analysis, frequency analysis, correlation analysis, and regression analysis. Table 1 represents the return survey rate.

Table 1 - Survey return rate

Population	Sample Size	Hard-copy Questionnaire Returned	Online Questionnaire Returned	Total Returned	Return Rate
14593	375	280	90	370	98.7

4. Analysis and Discussion

4.1 Reliability for Actual Study

Reliability analysis for actual study was conducted after the data has been completely gathered by the researcher. Table 2 shows the reliability analysis for the actual study.

Table 2 - Reliability for actual study

No. Of Respondent	No. Of Questions	Croncbach's Alpha
370	28	0.721

The overall Cronbach 's Alpha value of the real study is 0.721. Thus, referring to Sekaran (2003) it can be inferred that the overall Cronbach 's Alpha for real study was having a good reliability level.

4.2 Respondent's Demographic Characteristic Analysis

In this current research, the demographics of the respondents were considered. Five main respondents' demographics were asked including gender, age, education level, race, and percentage of online shopping. The frequency analysis of all demographic analysis is represented clearly in Table 3.

Table 3 - Respondents' demographics

	Categories	Frequency	Percentage
Respondents'	Male	191	51.6
Gender	Female	179	48.4
	Total	370	100.0
Respondents'	18-22	217	58.6
Age	23-27	123	33.2
	28-32	25	6.8
	Above 32	5	1.4
	Total	370	100.0
Respondents'	Bachelor	304	82.2
Education	Master	60	16.2
Level	PhD	6	1.6
	Total	370	100.0
Respondents'	Malay	239	64.6
Race	Chinese	57	15.4
	Arab	40	10.8
	Indian	27	7.3
	Pakistani	1	0.3
	Somali	6	1.6
	Total	370	100.0
Percentage of	Weekly	38	10.3
Shopping	Monthly	126	34.1
Online	Once in Three	94	25.4
	Months		
	Once in Six	56	15.1
	Months		
	Yearly	35	9.5
	Never	21	5.7
	Total	370	100.0

There were 191 (51.6%) male respondents who took part in the questionnaire, while 48.4% (48.4) participants were female. Second is the analysis of the respondents' age. Huge number of the participants aged between 18 - 22 years old; their number was 217 (58.6.4%). The participants aged between 23 - 27 years were 123 (33.2%). However, those who are between 28-32 years were only 25 respondents (6.8%). Finally, a small number of the respondents were above 32 years' old who recorded only 1.4% (5 respondents). Third is the education level. 304 respondents (58.6%) were Bachelor students. About 60 respondents (16.2%) were master students. However, participants who are in their PhD level were only 5 respondents, and they accounted for (1.4%). Fourth was the race of the respondents. Most of the participants were Malay (239 respondents, at 64.6%). This was followed by the Chinese respondents as they were 57 respondents (15.4%). Next was the Arab respondents. They were 40 respondents, and they account for about 10.8% of the total number. Indian respondents also participated in the questionnaire and their percentage was 7.3% as they were only 27 respondents. The smallest numbers were from the Somali and Pakistani respondents. Fifth is the respondents' frequency use of online shopping. A huge number of respondents (126 respondents at 34.1%) mentioned that they use online shopping monthly. This was followed by those who stated that they use online shopping every three months whose number was 94 and their percentage 25.4. Others also mentioned that they use online shopping once in six months (56 accounting for 15.1%), weekly (38 accounting 10.3%) and yearly (35 accounting for 9.5%), and never (21, amounting 5.7%).

4.3 Findings of Objective One

The main first objective in this study was to identify the main factors affecting university students' attitude toward online shopping. This has been first achieved through the literature review. However, this section will stress more on the of significance of this factors. The factors that were determined in this study were (Quality, Cheap prices, Saving Time, Wider selection of products, and trust). In fact, the mean analysis was used to find the central tendency. The results of the mean analysis are shown in Table 4. The five factors were considered in the high central tendency, except for the quality of the products the central tendency of which is moderate.

Table 4 - Descriptive statistics

	Factors	Average Mean	Std. Deviation	Total Average mean	Mean score interpretation
	Q7	4.12	.696	3.74	High
Attitude	Q8	4.07	.747		
	Q9	3.04	.933		
	Q10	3.32	.992	3.64	Moderate
Quality	Q11	3.46	.892		
	Q12	4.10	2.214		
	Q13	3.70	.855		
Cheap Prices	Q14	3.96	.834	3.84	High
	Q15	3.26	1.095		
	Q16	4.31	2.191		
Saving Time	Q17	4.27	.760	4.00	High
	Q18	4.40	3.019		
	Q19	3.63	2.292		
	Q20	3.72	.833		
Wider	Q21	3.86	.791	4.22	High
Selection	Q22	4.21	2.186		
	Q23	4.06	.711		
	Q24	3.54	.865	3.76	High
Trust	Q25	3.48	.827		
Trust	Q26	4.22	.711		
	Q27	3.81	.758		
	Q28	3.75	.756		

The mean and standard deviation values were analyzed by using SPSS Version 22.0. Each variable for this study was stated in Table 4. The variables were measured using a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Thus, if the mean score was between 2 and 4, it was rated as average. Meanwhile, a mean score was greater than 4, it was considered as high. Table 4 shows the mean, standard deviation and Cronbach"s Alpha values of variables as below. The dispersion of the variables from their standard deviation is measured by the standard deviation. A good example can be Q7 with the value of 0.671 is one standard deviation below the mean in the above example in which the variable, has a mean of 4.47. This mean indicates that most of the respondent have agreed on the statement.

The mean scores for the variables ranged from 3.64 to 4.22, with standard deviation value ranged from .030 to 0.708. The highest mean value was Wider Selection of Products with 4.22 (Std. Dev: 1.22), followed by Time Saving with 4.00 (Std. Dev: 1.22), Trust with 3.76 (Std. Dev: 0.791), Attitudes with 3.74 (Std. Dev: 0.792), and lastly Quality with 3.64 (Std. Dev: 1.23). we can conclude that most of the respondents chose rank 4 (agree) based on Likert scale questions in the questionnaires provided to them. Thus, objective one was achieved with the careful analysis. The findings show that all factors affect the attitude of the student with a little change in the degree of the affect. Wider selection of products was the most significant factor with an average mean of (4.22). This was followed by the saving time factor with an average mean of (4.00). the third factor was the cheaper prices, and the fourth factor was trust, with average means of (3.84 and 3.76respectively). Finally, the last significant factor was the quality of the products with a moderate average mean of (3.64).

4.4 Findings of Objective 2

The second objective of this research was to find the relationship between the dependent variable (attitude toward online shopping) and the five factors that affect the attitude of university students towards online shopping. Normality test was conducted to know whether the data was distributed normally or not and to determine which test was effective to test the relationship between the variables.

4.4.1 Normality Test

Since the sample of this study was more than 200 questionnaires, to test the normality, Kolmogorov-Smirnov was used. The result indicated that the data was not distributed normally because the significant values are less than 0.05. The result of normality test is presented in Table 5 below.

Table 5 - Normality test

Variables	Kolmogorove-Smironv Significant	Shapiro-Wilk Significant
Attitude	.000	.000
Quality	.000	.000
Cheap Prices	.000	.000
Time Saving	.000	.000
Wider Selection	.000	.000
Trust	.000	.000

4.4.2 Correlation Analysis

Table 6 shows the results for the correlation analysis of the study. It is clear that the strongest relationship is between the wider selection and the attitude (r = .440, P-value = 0.000), while saving time has the weakest relationship with the attitude toward online shopping (r = .2.33, P-value = 0.000).

H1a: There is a significant relationship between quality and attitude toward online shopping.

The study hypothesized that the relationship between quality and attitude toward online shopping is positive. According to Table 6, the p value of Spearman correlation between quality and attitude toward online shopping is 0.000 which is lower than the 0.01 level. The r value is .292. This indicates that there is a positive relation between the dependent variable and quality of products.

H2: There is a relationship between price and attitude toward e-shopping.

The hypothesis posits that there is a relationship between cheap prices and attitude towards e-shopping. According to Table 10, the p value of Spearman correlation is .000 which is smaller than the 0.01 level, while the r value is .296. This indicate that there is relationship between the cheap prices and the attitude toward e-shopping among university students.

H3: There is a relationship between saving time and attitude toward e-shopping.

The research hypothesis posits that there is relationship between saving time and attitude towards e-shopping. According to Table 6, the p value of Spearman correlation is .000 which is smaller than the 0.01 level, while the r value is .233. This indicates that there is a relationship between the saving time prices the attitude toward online shopping among university students.

H4: There is a relationship between wider selection and attitude toward online shopping.

It is hypothesized that there is a relationship between availability of variety of products and the attitude towards online shopping. Based on Table 6, the p value of Spearman correlation is .000 which is lower than the 0.01 level, while the r value is .440. This indicate that there is a positive relationship between the availability of variety of products and the attitude towards e-shopping among university students.

H5: There is a relationship between trust and attitude towards e-shopping.

The hypothesis states that there is a significant positive relationship between trust and attitude toward online shopping. According to Table 6, the p value of Spearman correlation is .000 which is lower than the 0.01 level, while the r value is .311. This indicate that there is a positive relationship between the trust and the attitude toward eshopping among university students.

Table 6 - Correlation analysis

Attitude		Quality	Cheap Prices	Saving Time	Wider Selection	Trust
	Correlation	.292**	.269**	.233**	.440**	.311**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	370	370	370	370	370

4.4.3 Multiple Regression Analysis

To test the effect of Independent variables "Quality, Price, saving time, wider Selection, and Trust" on the dependent variable "Attitude Toward Online Shopping" this study used the multiple regression analysis. The results of the multiple regression analysis are shown in Table 7. If the significant value is less than .05, it means that there is a significant relation or impact. However, when the sig. value is more than .05, it means there is no impact on the dependent variable.

Based on table 7, the standardized coefficients for quality .162, Price -.009, saving time .045, wider selection of product .227, and trust .212. Besides, the results showed that not all the independent variables significantly related to the dependent variable. Quality, wider selection of products, and trust are the only variables that are significantly related to the university students' attitude towards e-shopping because their value is less than .05.

Thus, according to the T test, there are two factors that are not relevant to the equation. The hypothesis of cheap price and saving time were not supported. This was strengthened by the R Square (.175) which is very low. The R Square result shows that all the factors can express only 17.5 % of the changes in the attitude. This is an accepted figure in the social research.

Attitude= a + B1 Quality + B2 Price + B3 Time saving + B4 Wider Selection + B5 Trust

Table 7 - Coefficients for relationship between dependent variable and independent variables

			Coefficients					
	Model	Unstandardized Coefficients		Model Unstandardized Coefficients Standardized Coefficients			T	Sig.
		В	Std. Error	Beta				
1	(Constant)	5.014	.783		6.405	.000		
	Quality	.103	.031	.162	3.318	.001		
	Price	006	.032	009	174	.862		
	Time	.020	.021	.045	.947	.344		
	Wider	.147	.032	.227	4.553	.000		
	Trust	.142	.035	.212	4.058	.000		
a.]	a. Dependent Variable: DV							

The given regression analysis model summary in table 8 illustrates that the R value is (0.419). This mean that there is a positive correlation between the attitude toward online shopping and the independent variables, namely quality of products, cheap prices, saving time, wider selection of product and trust.

Table 8 - Regression analysis model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.419 ^a	.175	.164	.54478			
a. Predi	a. Predictors: (Constant), Trust, Time, Quality, prices, Selection						

The results of ANOVA of the regression analysis in Table 9 shows that the overall model is significant because p sig. value (0.000) is less than 0.05. And thus, the model has accomplished a satisfactory level of goodness of fit in predicting the variance of attitude toward online shopping in relation to the fifth factors. According to the F-test, the equation regression analysis is correct.

Table 9 - ANOVA

Model		Sum of	Df	Mean	\mathbf{F}	Sig.
		Squares		Square		
1	Regression	22.964	5	4.593	15.475	.000 ^b
	Residual	108.028	364	.297		
	Total	130.992	369			

a. Dependent Variable: Attitude

b. Predictors: (Constant), Trust, Time, Quality, prices, Selection

5. Findings

Based on the data collected from the 370 respondent and was analyzed, wider selection of products is the main factor that made them purchase online as this variable scored the highest mean (4.22). From the findings, the respondents have highlighted that they are motivated to buy online as they are able to find different products and brands

that satisfy their needs and desires. In addition, the respondents have also showed that online shopping is a popular method of shopping among them as it enables them to get the products that may not be available in the nearby market. The results support the studies of Delafrooz *et al.*, (2010) and Harn *et al.* (2006). The second significant factor was saving time. The average mean for this factor was 4.00 which is considered high. Most of the respondents agreed that online shopping saves the time and save them from the traditional market crowded chaos of traffic. Interestingly, most of the respondents also agreed that the delivery of the products takes long time. This is a negative effect.

Cheap prices came in the third place as a factor that affect the Students' attitude toward online shopping. This factor scored a mean of 3.84 which is considered high. This factor has three questions in the questionnaire. The mean of this factor illustrates that the respondents believe that online shopping is cheaper than traditional shopping. The results also show that online shopping enables the respondents to control their expenses by the function which link the online website to the students' bank accounts. This function has made it easy for them to track how much they have spent on a particular product and compare prices easily. The finding is consistent with previous studies done by Jadhav and Khanna (2016), and Ferri *et al.*, (2010). The fourth factor was the trust. This factor scored an average mean of 3.76. This mean is also considered high. The results of this factor show that most of the respondents agree on the safety of the online transaction. The result of this study is consistent with previous studies which claimed that trust is a very influential factor (Usha Vaidehi, 2014; Chandra & Sinha, 2013).

The fifth significant factor was the quality of the products. This factor scored average mean of 3.64. This mean is considered as moderate, with less influential effect to motivate students to buy through online than the other factors. This is probably because the students are disappointed by the quality of products they have bought from online websites. It can also be related to the respondents' background since most of them are in their twenties and from a business background, so they are more aware of this issue. Regarding objective two, the correlation analysis Results showed that all factors have relation with dependent variable. The p value of Spearman correlation between all the factors and attitude toward online shopping was 0.000 which is lower than the 0.01 level. This result can be strengthened by the fact that all the majority of the respondents are coming from the business and technology management background. More than that they are all educated and are aware of the benefits they gain from using online shopping. The results are similar to the finding of Delafrooz *et al.* (2010) who has studied the online shopping orientation and the perceived benefits from this type of the e-commerce. In his study, it was stressed that there is a strong relationship between the attitude towards online shopping and the perceived benefits gained from online shopping such as wider selection and cheap price.

In addition, the strongest relationship was between the wider selection and the attitude towards online shopping (r = .440, P-value = 0.000). This was followed by the relationship between the trust and the attitude towards online shopping while saving time has the weakest relationship with the attitude toward online shopping (r = .311, P-value = 0.000). However, the relation between saving time and attitude towards online shopping was the weakest relation (r = .233, P-value = 0.000). On the other hand, regression analysis was used to determine the effect of the independent variable on the dependent variable. The regression analysis showed different results. Only three variables were determined as having strong effect on the attitude toward online shopping which are the quality of the product, wider selection of products and the trust with a Sig. value of .001, .000, .000 respectively. However, cheaper prices and saving time were found to have no effect on the dependent variable as their Sig. value scored .862 and .344 respectively.

6. Conclusion

This study was on the factors affecting the university students' attitude toward online shopping. The results of this study have shown that wider selection of products has the highest value among the factors that affect the participants' attitude toward e-shopping. The study also has shown that quality, cheap prices, saving time, wider selection of products and trust are positively corelated with the dependent variable. It is recommended that should apply this study in other states in Malaysia throughout many states, using interview technique to obtain in depth data.

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