Relationship between Perceived Usefulness and Online Shopping Behaviour among University Students

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Abstract - **E-marketers can now reap the benefits of the increasing use of the Internet in Malaysia. Such marketers understand a factor that influences online shopping behaviour among students while maintaining their existing online customers, which is vital to developing their marketing strategies. The purpose of this study is to investigate the role of perceived usefulness that influence online shopping behaviour among university students. As for methodology, primary data was collected from a sample size of 276 students at private University in Shah Alam using survey instruments. The collected data was analysed using SmartPLS. The findings revealed that perceived usefulness have positive relationship on online shopping behaviour among university students. This research also includes a discussion, limitations, recommendations, and conclusions.**

Key Words: Online Shopping Behavior, Perceived Usefulness, University Students, Private University, TAM
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I.   Introduction

Online shopping is a growing global phenomenon and has become a globally successful trend. Nowadays, it is no stranger among consumers to prefer online shopping for access through electronic commerce (Daniel & Christina, 2019). Online shopping provides convenience to the consumers to make their shopping by sitting at home or any other place at any point of time (Eneizan. B. et al., 2020). According to Wan & Mohammad (2020), the term "online shopping" refers to a process in which a customer purchases goods and services directly from a seller over the internet. Hence, it will make customers are getting higher preferring online shopping than a physical store (Wan & Mohammad, 2020). The e-commerce platforms usually become a choice

of consumers like Lazada, Shoppe, Mudah, Zalora, Carousell, and many more. Because of that, consumers tend to be shopping online compared to conventional or traditional shopping, due to ease, comfort, convenience, cost-saving, time-saving, and fast (Angela, 2017; Rozita et al. 2021).

According to United Nations Conference on Trade and Development (UNCTAD) it is projected that 1.45 billion people, or one quarter of the population of 15 years or older world-wide, will make online purchases in 2018, 9 percent more than in 2017. This is predicted at UNCTAD by Geneva (2020). In the meantime, as the 99 (2020) companies have eloquently stated, a quarter of the world's population will be estimated by more than 2.05 billion digital customers worldwide by 2020. It was 1.32 trillion in 2014, and by 2021, it is expected to reach 2.14 trillion. This demonstrates that online shopping is high in future and the consumer tends to purchase a product in online shopping. However, as indicated to MCMC (2017), 66.7% of Internet users did not shop online because they lacked the confidence and expertise needed to engage in e-commerce practices. It is also important to ensure that the e-commerce website is accessible to all users. Customers will become frustrated and leave the website if it is designed in such a way that they must exert extra effort to understand and learn how to use it (Daniel & Christina, 2019).

The latest literature on online shopping behaviour has been studied and this study revealed that the factors that influence online shopping behaviour is perceived usefulness (Slamet et al 2020; Dharma & Ku Halim, 2019). Perceived usefulness is defined in how consumers feel that online shopping on this website can give them added value and efficiency (Hu et al., 2009; Lai & Wang, 2012; Yi et al., 2016). Online shopping behaviour usually described as the approach used by individuals or groups to choose any product or service, knowledge, or ideas that match their needs and have a long-term effect on consumers and society (Guled et al., 2018).

Even though the relationship has been observed and examined, the role of perceived usefulness as an important antecedent is not thoroughly being discussed in the online shopping among university (Slamet et al., 2020; Abdulkadir & Mohammad, 2019; Yi et al., 2016). Hence, the main objective of the study was to examine effect of perceived usefulness on online shopping behaviour among university students.

II. Literature Review

Theoretical Foundation

The theoretical used in this study is Technology Acceptance Model (TAM). As indicates by Davis (1986), The TAM is an information system theory to explain how users understand and use information technology. The TAM is used for information system acceptance. Meanwhile, TAM proposed perceived usefulness as the primary determinants of the acceptance of IT. The original TAM clarified the causal relation between beliefs (usefulness of IS and ease of worth of IS) and consumer emotions, intentions, and "actual behaviour of computer adoption" (Shabrina, 2019). As indicated by Lim et al (2021), new technologies or systems will be adopted by consumers depending on their perceived benefits or usefulness. In the Technology Acceptance Model, perceived usefulness can be viewed as an important independent variable. The Technology Acceptance Model (TAM) found that the utilitarian orientation part of a consumer's experience influences their desire to buy a new technology or system, because utilitarian orientation of online shopping indicates usefulness and ease of use (John et al.,2020). Lastly, as studied by Abdulkadir & Mohammad (2020), TAM has been used in a variety of behavioural experiments of information and communication technology (ICT and networks), health care systems, resource planning systems, mobile financial technology, internet, and commerce. Besides, the TAM model revealed a relationship between "usefulness" and "intention" (Nornazurah et al.,2016). As a result, TAM first explained perceived usefulness and usage intention in terms of social influence and cognitive instrumental processes.

The Relationship Between Perceived Usefulness and Online Shopping Behaviours

Findings on the relationship between perceived usefulness and online shopping behaviour are consistent. The perception of usefulness has a positive and significant impact on the intention to buy online. This claimed was supported by similar research done by Slamet et al (2020), Dharma & Ku Halim (2019), and Shabrina (2019). For example, Yi et al (2016) have examined factors that could influence online shopping behaviour in Malaysia, Slamet et al (2020), using a perception of 200 respondents as students those shopped online shopping, Dharma & Ku Halim (2019) conducted research using from 200 sets of the questionnaire had been distributed randomly among the PPIPT students.), A result from these surveys reported that the TAM model showed a strong relationship between "usefulness" and "intention" (Nornazurah et al., 2016). As eloquently stated by

Edward et al (2021), young people's perceptions of the environment are simplified and facilitated by their perceived usefulness. As a result, the findings revealed that perceived usefulness has a significantly and positively impact on people's online purchasing intentions, particularly among younger generations. According to Qaribu et al (2021), consumers' expectations that modern information technology will boost work efficiency are referred to as perceived usefulness, in which a person believes that using a system will improve his job routine or performance, and the results revealed that perceived usefulness is a significant reason for consumers to embrace online stores. Since perceived usefulness has a greater correlation value than other variables, the relationship between perceived usefulness and customer acceptance of online banking is favourable. (Lim et al.,2021). Likewise, individual qualities are just as crucial as perceived usefulness in getting people to adopt new technology, according to the results of a positive direct relationship between consumer innovativeness and adoption. (John et al.,2020).

H1: There is a positive relationship between perceived usefulness and online shopping behaviour.

Research Framework

Independent Variable   Dependent Variable

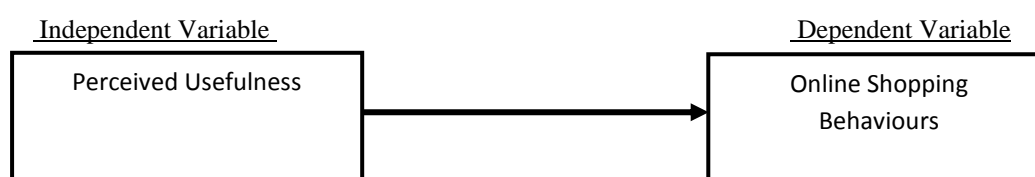| Perceived Usefulness | → | Online Shopping Behaviours |

Figure 1: Conceptual Framework

III. Methodology

The study used a quantitative approach to identify the correlations between perceived usefulness and online shopping behaviour. The purpose of using correlation research design was to measure the degree of relationship between variables and to what extent one variable explains another variable under study (Sekaran & Bougie, 2016).

This study was conducted at a private higher learning institution in Malaysia. A convenient sampling technique was employed to distribute 375 survey questionnaires to undergraduate students in the studied organization. This sampling technique was chosen because the management of the organizations did not allow the researchers to perform random sampling procedures. Out of the total number, 276 questionnaires were returned to the researchers.

The survey questionnaire data was analyzed using the SmartPLS 3.0. This statistical package has several advantages where it may deliver latent variable scores, avoid small sample size problems, estimate every complex models with many latent and manifest variables, hassle stringent assumptions about the distribution of variables and error terms, and handle both reflective and formative measurement models (Henseler et al., 2009; Ringle et al., 2005). The SmartPLS path model was employed to assess the magnitude and nature of the relationship between many independent variables and one or more dependent variables in the structural model using standardized beta (β) and t statistics. The value of R^2 is used as an indicator of the overall predictive strength of the model. The value of R^2 is interpreted as follows: 0.19 (weak), 0.33 (moderate) and 0.67 (substantial) as suggested by Chin (1998), and Henseler et al. (2009). A global fit measure was conducted to validate the adequacy of PLS path model based on Wetzel, Kneebone, Woloshynowych, Moorthy & Darsy's (2006) global fit measure. If results of testing hypothesized model exceed the cut-off value of 0.36 for large effect sizes of R^2, then they adequately support the PLS path model globally.

IV. Results and Discussion

Demographic Descriptive Analysis

The respondents 'characteristics show that majority of the respondents were 161 female respondents (58.3 %) and 115 male respondents (41.7 %) in this study. Moving to age of respondents, the majority of respondents 134

(48.6%) are between the ages of 21 and 23 years old. For age groups 27-29 years and 30 and fewest respondents, with 7 and 4 respondents, representing 2.5% and 1.4 % respectively.

Demographic Characteristics	Categories	Frequency	Percentage (%)
Gender	Male	115	41.7
	Female	161	58.3
Age	18 – 20	70	25.4
	21 – 23	134	48.6
	24 – 26	61	22.1
	27-29	7	2.5
	30 and above	4	1.4
Nationality	Malaysian	264	95.7
	Non-Malaysian	12	4.3
Educational Level	Foundation	18	6.5
	Diploma	74	26.8
	Degree	183	66.3
	Master	1	0.4

The shows the demographic descriptive finding, specifically the gender, with a total of 276 respondents in the survey. There are 161 female respondents (58.3 %) and 115 male respondents (41.7 %) in this study. Moving to age of respondents, the majority of respondents 134 (48.6%) are between the ages of 21 and 23 years old. For age groups 27-29 years and 30 and fewest respondents, with 7 and 4 respondents, representing 2.5% and 1.4 % respectively. Next, nationality. Malaysians are the highest 264 (95.7%) of respondents compared to non-Malaysian only 12 (4.3%) of respondents. Last is about educational level, the majority of the respondents are Degree level, with 183 (66.3%) participating for response in this study and the least respondent for education level is Master that only have 1 (0.4%) respond in this survey of study.
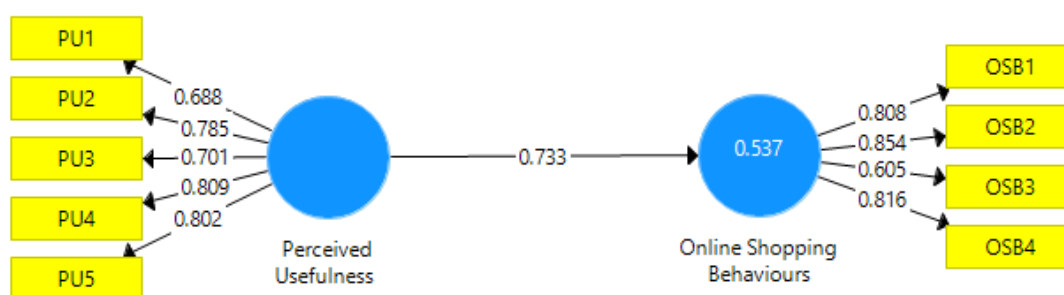
Validity and Reliability Analysis

Figure 1: Overview of the Model

Table 1 shows the validity and reliability of the constructs. The factor loading value for every item exceeds 0.7, showing that the items for every construct have reached the standard of the validity and reliability analyses determined (Fornell & Larcker, 1981; Gefen & Straub, 2005). Next, every construct has the composite reliability value that is greater than 0.80, which means that the measurement scale has high internal consistency (Chua, 2006; Henseler et al., 2009)

Table 1. Result of Outer Loading and Composite Reliabiltiy

Construct	Item	Outer Loading		Composite Reliability
		1	2	
Perceived usefulness	5	0.70-0.81		0.86
Online shopping behaviour	4		0.60-0.85	0.87

Table 2 illustrate the test results for the convergent and discriminant validity. The value of the convergent validity test (*AVE)* for every construct is greater than 0.5 showing that the study constructs are able to explain the average of change among the items (Hin, 2010;Fornell& Larcker, 1981; Gefen & Straub, 2005; Henseler *et al*., 2009). The Heterotrait-monotrait (HTMT) value for every construct is less than the critical value needed which is 0.85   (Henseler et al., 2015). This means that the study constructs have fulfilled the stipulated discriminant validity criteria (Hin, 2010; Fornell & Larcker, 1981; Barclay et al., 1995; Henseler et al., 2009).

Table 2. Results for the Convergent Validity and Discriminant Validity tests

Variable	AVE	Perceived usefulness	Online shopping behaviour
Perceived usefulness	0.60	**0.53**	**0.73**
Online shopping behaviour	0.60		**0.77**

Hypothesis Testing

Table 3: Summary of Hypothesis Testing

Hypothesis	Beta	t-value	R^2	Status
H1: There is a positive relationship between perceived usefulness and online shopping behaviour.	**0.46**	**5.6**	**0.60**	**Supported**

Table 3 shows that the perceived usefulness has a positive and significant with online shopping behaviour (β=0.46; t=5.6). Therefore , H1 is accepted. Thus, based on these results, it confirms that perceived usefulness have been able to act as an important predictor to online shopping behaviour in the organisation of study.

V.   Discussion and Conclusions

This research tested the conceptual framework developed according to the online shopping literature. The findings of testing the research hypotheses revealed there is a significant relationship between perceived usefulness and online shopping behavior. These findings have expanded previous studies mostly published in Western and Asian countries. Therefore, extant research and practice in online shopping suggest that perceived usefulness should consider as a crucial element in customer's online shopping behavior. Future studies indicated that when the applications or systems is simple and easier to use, will enhance consumer purchase behavior.

This study also presents numerous propositions to strengthen the future study. Firstly, some critical respondents' personal and service backgrounds should be considered in future studies as it may predict the similarities and differences of respondents' attitudes toward the relationship between variables of interest. Secondly, a comparative study should measure the relationship between interest variables in various industries.

Next, a bigger sample size should take as it can better represent the population under study. Finally, specific dimensions of online shopping such as social influence, perceived security, and perceived ease of use need to highlight as they are widely discussing in the online shopping literature.

In conclusion the main contribution of this research is focusing on the knowledge about factors affecting online shopping behavior among university students in Malaysia. This information is particularly provide input for company management, particularly those in the marketplace, to give greater attention to consumer perceived usefulness while implementing and developing online shopping systems. These would result in an increase in the user's usefulness, allowing the individual to respond favorably to online shopping.

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