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**CONSUMER PURCHASE INTENTION TOWARDS ONLINE
GROUP BUYING WEBSITE IN MALAYSIA**

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Abstract

Online group buying has emerged as a new form of e-commerce that has numerous benefits to all partners in the transactions, e.g. customers, intermediaries, suppliers, and merchants. Since the concept of online group buying website is still in the preliminary development phase in Malaysia, there is need to examine factors that affect consumer purchase intention towards online group buying website. The purpose of this research is to investigate and determine how perceived ease of use, perceived usefulness, perceived risks, price and e-WOM (electronic word of mouth) affects the purchasing intentions of online customers towards online-group purchasing websites. The study will use TAM (Technology Acceptance Model) and its constructs as a theoretical and conceptual framework to achieve the study objective. A quantitative study was used to accomplish the objective of this study, which is to investigate and determine the purchasing intentions of online customers towards online-group purchasing websites in Malaysia. The data was collected using an online survey. There were 115 respondents have participated in this survey, data were analysed using IBM SPSS and Smart PLS3. The findings reveal that all hypotheses are supported. It is also showed that perceived usefulness has the highest impact on consumer online group buying websites. These findings provide valuable insights for online-group purchasing websites and the factors that motivate them to make online purchases from such websites. It can help scholars, policy makers, managers, and business enterprises to understand online group buying behavior in Malaysia.

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Keywords: Online group buying, Technology Acceptance Model, perceived usefulness, informational social influence, perceived ease of use, E-WOM.



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1. Introduction

The advent of e-commerce has significantly transformed the business setting and improved the manner in which businesses are carried out (Cheng & Huang, 2013). Currently, majority of customers have begun to buy products or goods from online group purchasing websites both globally and in Malaysia (ATKearney, 2017). Online group buying is a business model in which customers come together to form an online group through which they can achieve adequate volumes of orders so that they are charged lower prices when they buy goods and services through a website (Cheng & Huang, 2013). In this sense, buyers collaborate to achieve a given degree of demand that will translate into lower prices (Cheng & Huang, 2013). Emmanuel (2012) found that in Malaysia, the online group buying websites are significantly growing. Service providers like Everyday Coupons, MyDeal.com, Groupon Malaysia, MilkADeal and Deal mates are examples of stores that are offering considerable discounts to consumers via e-shopping or online shopping. According to Lau (2011), online group buying websites is perceived as a significant method of e-commerce which puts the power of substantial or considerable discount in the hands of the online customers.

1.1. E-commerce Industry in Malaysia

Since its emergence as a global interconnection network, the internet has grown to become one of the most important marketing tools in the world today. In addition, it serves as a useful tool for both local and international business transactions. According to Lim, Osman, Salahuddin, Romle and Abdullah (2016), e-commerce grew to reach the US\$840 billion mark in the year 2014. The sector is expected to maintain its growth trajectory and get to the US\$1506 billion mark by 2018. The continuous increase in sales is a clear indication that e-commerce has an enormous potential that can benefit individual business, countries, and consumers.

Available body of research evidence suggest that the global and local economic trends are forcing consumers in middle income economies like Malaysia to curb their spending and look for avenues for accessing products and services at discounted prices (Chen, Tan, & Chong, 2015; Lim et al., 2016). In addition, the country has realized that e-commerce plays a key role in the growth of its economy. Presently, e-commerce plays a critical role in supporting the continued growth of Malaysia's economy. In particular, e-commerce is responsible for 15 percent of the country's GDP. Besides, the government has been working hard on implementing intervention such as the lifting of no-tariff barriers and accelerating adoption of e-commerce with the intention of driving e-commerce GDP contribution to RM 170 billion by 2020 (ATKearney, 2017).

At the moment, 68 percent of the Malaysian population (22 million) is an active internet user (The International Trade Administration, 2017). This number is expected to go up in the coming years due to the high rates of internet and mobile cellular penetration. As a result of the high mobile and internet connectivity as well as public encouragement and support, Malaysia boasts of high e-commerce usage rates. In particular, the country has about 15.3 million online shoppers (The International Trade Administration, 2017). This implies that 50 percent of Malaysian population engages on online shopping (The International Trade Administration, 2017). It is imperative to state that these online shoppers are motivated by a wide

range of factors that include exclusive deals offer by online shopping stores, free shipping, convenience, availability of product reviews, diverse product range, and price advantages (The International Trade Administration, 2017). These benefits motivate Malaysians to go online and buy fashion and accessories, home and living products, beauty products, and health products. In the coming years, online shopping is expected to continue with its growth trajectory. The growth will be attributed to growing internet connectivity, wiliness of customers to by new product categories online, and emergence of safe and reliable payment methods (The International Trade Administration, 2017).

2. Problem Statement

Like in any part of the world, online group buying is becoming part and parcel of the e-commerce industry in Malaysia. The post-purchase by Groupon Incorporation Groups more (for example online group buying websites n Malaysia) as portion of commercial growth and development in Asia, leads to growth of numerous group purchasing sites that hopes to acquire a portion of the market shares. On the other hand, Tan (2011) argued that even though MyDeal.com.my begun in 2000, becoming the first Malaysian group purchasing site in Malaysia, the concept of online group buying was not popular in Malaysia until it was popularized by Groupon in 2008.

Rakshita and Alok, (2014) stated that online group buying websites positively alters or significantly improves the manner in which online customers buy services, products or brands in e-commerce websites. Companies can, therefore, leverage their businesses and use internet to reach to prospective consumers worldwide. Lo, Wu, and Law, (2012) found that online group buying websites offers approximately 90.0% discounts to consumers on different businesses such as services and products, healthcare products, cafés, and beauty. Similarly, Erdoğan and Çiçek (2011) stated that online group buying systems offers win-win situations for companies offering discount on their consumers, services and products.

Unfortunately, little or limited research has been conducted to examine customer purchase intention towards online group buying websites in Malaysia. With the exclusion of research works by Sun, Luo, and Liu, (2010) and Kauffman, Lai, Lin and Chang, (2009) on perceived risks and trust, Chen and Wu (2010) study on motivations, and Xie, Zhu, Lu, and Xu, (2011) on consumer intentions, and the existing works/literature is limited to elucidate the theoretical paradigms that underpins purchase intention towards online group buying websites or customer behaviors in online group purchasing. In addition, most of the existing literature focuses on Taiwan, USA and China; however, only Ramayah, Azzat, Mohd Nasser, and Letchumanan, (2008) studied group purchasing in Malaysia. This research examines the consumer purchase intention towards online group buying website in Malaysia. Therefore, the aim of this research to fill in the existing research gaps by providing an enhanced understanding on customer purchase intention towards online group buying websites in Malaysia.

3. Research Questions

The main objective of this thesis is to investigate and determine how perceived ease of use, perceived usefulness, perceived risks, price and e-WOM (electronic word of mouth) affects the purchasing intentions of online customers towards online-group purchasing websites.

3.1. Purchase Intention towards Online Group Buying

Online group buying is a business approach that has featured significantly in e-commerce literature and research. Liu (2015) stated that over the past decade, online group buying has developed and emerged to collectively address consumer needs. Online group purchasing refers to online collaborate buying or team buying. According to Cheng and Huang (2013), online group buying refers to a business model where online customers unite either by recruiting or inviting other individuals, to join the online group buying in order to attain adequate volume of orders to make very low transaction charges/prices. It also involves the process in which online buying websites unite together by combining resources and meeting consumer demands or buying needs (Liu, 2015). Online group buying adopts the novelty of online market approaches/mechanisms which utilizes the traditional concept of group purchasing auction.

One of the variables that have featured significantly in studies examining online group buying is purchase intention. Researchers have taken different approaches to explore and described purchase intention in the context of online group buying (Tong, 2010; Zhang, Tan, Xu, Tan, 2012). Yang and Mao (2014), for instance, stated that purchase intentions refer to the willingness of customers to purchase specific services or products from the online group buying website. Chang, Lai, and Wu (2010), on the other hand, found that several factors such as price, reference groups and consumer attitudes can affect the purchasing intention of consumers. Chen and Wu, (2010) found that the quality of the online group buying website, electronic word of mouth, reputation as well as trust influences on shoppers' buying intentions. Other authors (Tong, 2010; Zhang et al., 2012) stated that perceived ease of use and perceived usefulness influence consumers' buying intention toward online buying websites. On the other hand, Yang and Mao (2014) concluded that that purchasing intention can significantly affect the actual buying behavior of consumers towards online buying websites. Other studies have reported that group buying behavior is influenced by factors such as price, trust, Word of Mouth (WOM), website quality and perceived risk (Pi, Liao, Liu, & Lee, 2011; Chiu, Huang, & Yen 2010; Cheng & Huang, 2013; Yang & Mao, 2014). These findings are relevant to the current study as they provide the basis for understanding the factors and issues that affect and consumers' buying intention toward online buying websites.

3.2. Perceived Usefulness and Purchase Intention Toward Online Group Buying

Davis (1989) defined perceived usefulness as the extent to which buyers believe that a particular product or service will enhance their performance and wellbeing. Henderson and Divett (2003), in contrast, noted that consumer will have a positive recognition on the specific system if the system is easy to access and use. A review of existing body of research evidence suggests that the variable of perceived usefulness has been used to examine the consumer's valuation towards a specific system in a task related boundary (Gefen, Karahanna, & Straub, 2003). Pikkarainen, Pikkarainen, Karjaluoto, and Pahnla, (2004) stressed that the consumer perception towards the perceived usefulness of a system has a significant effect the usage of the system, especially when it entails online systems and payments. Taking such findings in account, it is evident that perceived usefulness variable has a strong collaboration with behavioral intention (Sanchez-Franco & Roldan, 2005; Gefen et al., 2003). Therefore, hypothesis 1 is proposed:

H1: There is a positive and significant relationship between perceived usefulness and customers' purchase intention towards online group buying website.

3.3. Perceived Ease of Use and Purchase Intention toward Online Group Buying

Davis (1989) described perceived ease of use as the perception of a consumer that a product or service is easy to use. While addressing the issue of perceived ease of use, Yang and Mao (2014) noted that consumer intention has a big influence to e-commerce usage in online website. Similarly, Koufaris and Hampton-Sosa (2004) argued that the consumer perception towards the system is based on their subjective efforts to understand the system and use it to meet their specific needs. In most cases, consumer prefers a simple and convenient system during their online buying activities (Selamat, Jaaf, & Ong 2009; Teo, 2001). Zeithaml, Parasuraman, & Malhotra, (2002) emphasized that website development can also affect consumer's perception about the ease of use of a system. A good website presentation brings convenience to consumers (Lim & Ting, 2014; Rahman, Khan, & Islam, 2013). Therefore, hypothesis 2 is proposed:

H2: There is a positive and significant relationship between perceived ease of use and consumers' purchase intention towards online group buying website.

3.4. Price and Purchase Intention toward Online Group Buying

A study by Kotler and Keller (2006) identified price as the main factor that makes consumer interested in a company's products and services. For the same products and services, consumer would not be willing to pay higher to get it (Sinha & Batra, 1999). Therefore, price sensitivity and price consciousness among consumers is one of the factors that online business must consider from time to time (Sinha & Batra, 1999). Price sensitivity refers to customer's reactions to changes in pricing within a time frame (Wakefield & Inman, 2003). Consumers tend to remain alert at all times and will react accordingly to any changes in prices of products and services that are sold through online group buying websites (Pi et al., 2011; Erdogmus & Cicek, 2011). Some researchers have successfully add this variable to TAM model and to show the relationship between consumer's purchase intention towards online group buying website and factors like price (Pi et al., 2011). In particular, the studies have shown that price can positively influence customer purchase intentions. Therefore, hypothesis 3 is proposed:

H3: There is a positive and significant relationship between electronic word of mouth and consumers' purchase intention towards online group buying website.

3.5. Electronic Word of Mouth (e-WOM) and Purchase Intention toward Online Group Buying

Westbrook and Oliver (1991) stated that electronic word of mouth (WOM) is a communication tool that focuses on presenting the characteristics of a good or services. According to Park and Kim (2009), e-WOM is an effective avenue to deliver product or service information to customers via the internet. Kotler and Keller (2006), on the other hand, found out that the internet has enhanced the spread of information from one place to the other. Riegner (2007) pointed out that the growth in internet accessibility has influenced consumer purchase pattern and behavior around the world. In addition, numerous studies have reported that find modern consumers prefer to gain product information from online website like forum before they make a purchase decision. All these online comment and review posted in group buying website can potentially influence other consumers' perception towards a product and service (Cheng & Huang, 2013). Other studies have further used the TAM model to show that electronic word of mouth can influence

how customers perceive a given online shopping store and products and services that are sold in such stores (Cheng & Huang, 2013). Therefore, hypothesis 4 is proposed:

H4: There is a positive and significant relationship between perceived risk and consumers' purchase intention towards online group buying website.

3.6. Perceived Risk (PR) and Purchase Intention toward Online Group Buying

Wang (2003) described perceived risk as the consumer's perceptions about the probability of experiencing a loss when they engage in a particular action or make a give purchase decision. Huang, Schrank, and Dubinsky (2004), in contrast, defined perceived risk as uncertainty feeling of consumers before their purchase decision. Previous studies have found out that perceived risk has a strong influence on consumer's online purchase intention (Tong, 2010; Pavlou, 2001; Koufaris & Hampton-Sosa, 2004). Tong (2010), for instance, showed that the higher of risk perception lead to reduced willingness to engage in online purchase. Furthermore, Wang, Ashleigh, and Meyer (2006) explained that product and services' quality, personal information privacy are the main consumer's concerns as they engage in online buying transaction. It is, however, worth noting that other researchers have argued that there is different type of risk such as security risk and privacy risk that affect purchase decisions. Therefore, hypothesis 5 is proposed:

H5: There is a positive and significant relationship between price and consumers' purchase intention towards online group buying website

4. Purpose of the Study

Online group buying is becoming one of the main features of e-commerce in Malaysia. Since the concept of online group buying website is still in the preliminary development stage in Malaysia, there is need to examine factors that affect consumer purchase intention towards online group buying website. However, minimal research has been conducted particularly in Malaysia to determine the factors that influence or sway customers' purchasing intentions towards online group buying website. The aim of this thesis investigated the factors that affect consumer purchase intention towards online group buying website. The significance of this study lies in the fact that it will provide vital insights on how perceived ease of use, perceived usefulness, perceived risks, price and e-WOM (electronic word of mouth) affect the purchasing intentions of online customers towards online group purchasing websites in Malaysia.

5. Research Methods

Data was collected through an online survey that was administered sequentially to the recruited study participants using a Google Form. The 5-point Likert scale questionnaire was used to examine the participant's view in regard to how perceived ease of use, perceived usefulness, perceived risksprice and eWOM affects the purchasing intentions of online customers towards online-group purchasing websites. All data collected was stored securely and used for the purpose of this research only.

6. Findings

A total of 115 participants filled all the parts of the questionnaire appropriately and out of 115 informants none was younger than 21 years. Also, 70% were between 21 and 29 years of age while 27% were between 30 and 39 years old. In addition, 0.9% was aged between 40 and 49 years and above those 60 years was 0.9%. Finally, 1.7% of the participants were aged between 50 and 59 years. In terms of gender, 45.2% of the participants were male while 52.8% were female. About 26.1% had been engaging in the online group buying websites for less than one year while 62.6%, had engaged in online group buying for a period, ranging between 1 and 5 years. It was established that 8.7%, of the participants had attempted online group buying for about 6 to 10 years while 2.6% of the informants had been engaging in online group buying for about 10-15 years.

Table 01 reported the result of Cronbach's alpha and composite reliability test. On the basis of Cronbach's Alpha, coefficients of consumer purchase intention, perceived ease of use, perceived risk, electronic word of mouth, perceived risk, and price value are in the range of 0.87 to 0.97. They are more than the accepted value, 0.7. Thus, the results indicate that the items have excellent internal consistency. Hair, Hult, Ringle, & Sarstedt (2013) has recommended that composite reliability is one of the excellent method to measure internal consistency reliability. It presented an accurate variance estimation shared by respected indicators. In table 01, composite reliability results for all the items are more than 0.60. All the items have achieved the acceptable level for explanatory research (Nunnally & Bernstein, 1994). Perceived ease of use (0.896) reported as a high internal consistency reliability. Composite reliability value of consumer purchase intention (0.919), electronic word of mouth (0.935), perceived risk (0.944), perceived usefulness (0.977) and price (0.932) show that they are evaluating the similar phenomenon (Hair et al, 2013). Cronbach's alpha and composite reliability values for all the scales are more than 0.70, therefore, it reported that all the scales are reliable for this study. Table 01 showing the average variance extracted (AVE) results to each of the constructs. All the items are more than 0.50, which meets the acceptable threshold. AVE result more than 0.5 imply that the latent variable explained more than the variance of its indicators' variance (Hair et al, 2013). Therefore, all the constructs' measures were valid.

Table 01. Reliability and Validity

Hypothesis	Relationship	Beta	Standard error	t-value	Decision
H1	<i>perceived usefulness and customers' purchase</i>	0.170	0.015	1.842***	Supported
H2	<i>perceived ease of use and consumers' purchase intention</i>	0.042	0.078	0.905	Not supported
H3	<i>electronic word of mouth and consumers' purchase intention</i>	0.203	0.072	7.310***	Supported
H4	<i>perceived risk and consumers' purchase intention</i>	0.381	0.014	2.082**	Supported
H5	<i>price and consumers' purchase intention</i>	0.112	0.011	0.145	Supported

Hair et al (2013) recommended to run cross loading to access the discriminant validity. Table 4.3 presented the cross loading result for this study. As per the results summarized in Table 4.3, Fornell-Lacker, there is a positive correlation between the independent variables and the dependent variable. Every indicator's outer loading is larger than its other loadings. The AVE value for each of the variables are higher than the squared associations between latent variable and other variable. According to Hair et al (2013), all the indicator outer loading must larger than the rest of its loading. Therefore, the results are sufficient for reliability and validity. According to Cohen (1988), effect size analysis (f^2) is an effective method to test the changes in R^2 to measure the substantive impact of an independent latent variable to a dependent latent variable. Cohen (1988) has set up a range value of the f^2 impact; i.e. 0.02, 0.15 and 0.35 as a small effect, a medium and a large effect respectively at the structural level.

6.1. Testing of Hypothesis

Three significance levels of 0.01, 0.05 and 0.10 were used to meet the objective and determine whether the null hypothesis holds. The table below presents the path coefficient and the hypothesis of the study using data delivered from the structural model. The coefficient value of H1 is 0.170 and a standard error of 0.015. The t-value is 1.842 and significant at $P < 0.01$. Hence, the t-value is greater than the theoretical value for a probability error of 1%. Therefore, this indicates that perceived usefulness is a strong influence on the decisions made by consumers. In the same manner, H3 indicates that electronic word of mouth has a strong positive relationship with the intention of consumers buying habits ($\beta=0.203$). H4 and H5 all have a positive relationship with the consumer's purchase intention and are significant at 5% level. This is contrary to H4 which indicates that risk is significant at $P < 0.05$ which means that consumer purchase patterns are relative to risk as human behaviour can be either characterized as risk averse or risk takers. However, H2 indicates that there is no positive relationship between the consumer's purchase intentions and the ease of use of the platform. This is supported by the path coefficient value of 0.042 and a corresponding t-value of 0.905 which shows deficiency and weakness as it falls below the theoretical value indicating that there is no correlation between perceived ease of use and customers buying intentions. Therefore, this test indicates that all hypothesis are supported except for H2.

Table 02. Result of hypothesis testing

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Consumer purchase intention	0.870	0.913	0.919	0.792
Electronic word of mouth	0.920	0.930	0.935	0.644
Perceived Risk	0.925	0.940	0.944	0.770
Perceived ease of use	0.862	0.961	0.896	0.644
Perceived usefulness	0.970	0.977	0.977	0.895
Price	0.908	0.911	0.932	0.731

7. Conclusion

The findings show that 5 hypotheses were supported (H1, H3, H4 and H5), hypotheses 2 is not supported. In H1, perceived usefulness has a good significant influence on consumer purchase intention

towards online group buying website with $\beta=0.170$ and $p<0.01$. These findings are in agreement with existing theoretical foundations and the findings of previous studies by Sanchez-Franco and Roldan (2005), Gefen et al. (2003) and Pikkarainen et al. (2004). This hypothesis is supported because, in the Malaysian case, most consumers' actions to make online purchase are influenced their perception towards the anticipated usefulness of the online system. Generally, Malaysian consumers strongly believe that online group buying websites are highly useful.

In H2, perceived ease of use has a negative relationship with consumer purchase intention towards online group buying website, with showing beta -0.042 and $p<0.01$. This result indicate that Malaysian consumer are doing well with advanced changed of online shopping platform and online group buying business model. In addition, 70% of respondents are from 21-29 years old. This group of respondents are easily adapted to fast changed technology and online group buying website is not something new and rare to them. Therefore, it shows that online group buying website is easy to use and able to navigate without effort, especially for experienced consumer.

In H3, electronic word of mouth has positively influence consumer purchase intention towards online group buying website in Malaysia, with beta of 0.203 and p value less than 0.01. These findings are line with those of Cheng and Huang, (2013), Park and Kim (2009), and Kotler and Keller (2006). This hypothesis is supported in the case of Malaysia because the internet is widely used by a majority of the consumers. Therefore, it has enhanced the spread of information from one place to another. Therefore, a consumer's intention towards online group buying website has been influenced by other consumers' feedback and information regarding a given product, service, or online group buying websites. People rely on the comments and reviews posted in group buying websites, which potentially influences their intention to purchase through online group buying websites.

In Hypothesis 4, perceived risk has positively influence consumer purchase intention towards online group buying website, with beta of 0.381, and $p<0.001$ it is revealed that the relationship between the independent variable and dependent variable is supported. The results support the findings of the studies carried out by Barnes (2007), Tong (2010), Pavlou (2001), Koufaris and Hampton-Sosa (2004). This hypothesis is supported in the Malaysian case because consumers are highly risk sensitive. Therefore, a majority of the consumers are risk averse. In that case, the perception of risk leads to reduced willingness to engage in online purchase. Moreover, the consumers are highly concerned about personal information privacy as they engage in online buying transactions.

Hypothesis 5 reveals that price has a good significant influence on consumer purchase intention towards online group buying website with $\beta=0.563$ and $p>0.01$. These findings are in line with previous studies' findings such as Pi et al (2011), Erdogmus and Cicek (2011), Barnes (2007), Tong (2010), and Kotler and Keller (2006). This is true in the Malaysian context because consumers are extremely sensitive to prices, and are never willing to pay more for a product or service when they can pay less. Malaysian consumers are alert at all times and react accordingly to any changes in the prices of products and services that are sold through online group buying websites.

The study has used a reliable measure of a wide range of determinants of a consumer's purchase intention regarding online group buying websites. Theoretically, the findings of this study encourage consumers to purchase through online group buying websites. Further, the findings establish that the

variable of perceived usefulness has the greatest impact on the consumers' intention to purchase through online buying websites. Although the other variables have significant impacts on consumers' intention to purchase online group websites, their impact is determined by various constructs.

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