Evaluation on Customer Satisfaction in Using E-Commerce Platforms: Malaysia as A Case Study

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ABSTRACT
The pervasive spread of Internet technology accompanied with the high impact of Fourth Industrial Revolution IR4.0, have given electronic commerce the power to change dramatically how people do trading. E-commerce is the largest gateway to access businesses electronically through Internet. It is a system embedded in websites or applications that enables the transaction of businesses to take place between merchant and customer. The usage of e-commerce platforms has expanded exponentially, especially in the industry involving trading, businesses, investment, banking, and many other industrial fields. E-commerce is defined as the mainstream that enables a small business to sell products or offer services to customers globally. In this paper, we investigate the satisfaction of Malaysian customers in the usage of e-commerce platforms. Data was gathered using a survey that involves 1039 respondents among Malaysian men and women randomly. About 87.3% of respondents became consumers in the e-commerce system, while 89% of consumers doing online transaction for at least once a week. General conclusion shows that the development of e-commerce in Malaysia is on the right track and increasing in due time. Thus, the implementation of e-commerce will help Malaysian citizens to gain information and knowledge on par with other developing countries.

Keywords : *e-commerce, evaluation, customer satisfaction, case study, Malaysia.*

I. INTRODUCTION

In the era of globalisation, societies are experiencing tremendous changes and heading towards the complexity of modern society in terms of socio-culture and socio-economy. These changes are heavily affecting how people is living today. The advancement of communication technology has enhanced people interactivity with each other in daily life which includes how they interact during practicing businesses [1, 2]. Latest cellular advances of fifth generation are expected to have massive effect on how e-commerce is functioning [3]. These revolutionary advancements will attract online users to engage deeper in e-commerce services. By incorporating multi-disciplinary technology into businesses, many innovations have been created and amongst them is e-commerce [4]. E-commerce is known as the largest gateway to access businesses electronically through Internet. Furthermore, the word 'e-commerce' is explained as performing business activities using Internet via websites and mobile applications [5].

The advancement of Internet had turned humankind into the invisible continent. Most governments in the world has transformed their systems electronically [6]. This encouraged their citizens to jump along into the digital world. Many business owners and merchants had shifted their businesses from physical platforms to digital counterparts. Similarly, e-commerce is no longer alienated among Malaysian online users. Based on "Digital in 2018 report", the e-commerce and m-commerce penetration in Malaysia are 59% and 40% respectively. Figure 1 shows the expected growth of e-commerce in Malaysia by 2020. Many Malaysians had been using e-commerce to find their needs or desirable items online [2, 7, 8]. Among various e-commerce platforms, Shoppe is the most famous platforms among Malaysian where even small kids can sing Shopee song. This shows that many Malaysian trust the capability of e-commerce platforms and feel secure to do business activities such as buying and selling on the platforms [9].

Therefore, this study is conducted to investigate the evaluation of consumer satisfaction towards the rising of e-commerce platforms. Furthermore, the study also focused on the characteristics of e-commerce platforms that attract users. The rest of this paper is divided as follows. Details of current research related to this work is explained in Section 2. Then section 3 discusses the methods and tools used to produce the findings of this

work. In sections 4 and 5, the results came out of this study as well as discussion of these results will be elaborated respectively. Finally, section 6 discusses the conclusion of the study as well as any future research to advance the work.
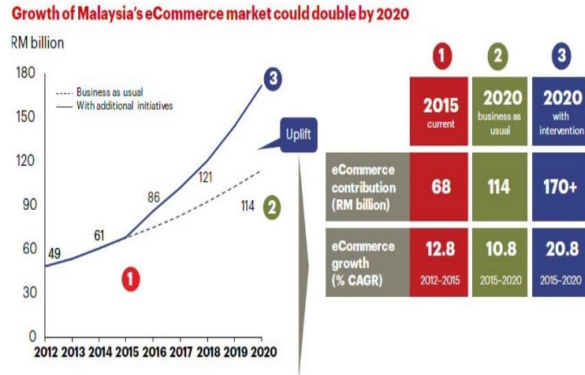

Figure 1: Malaysia E-Commerce Growth (source [4])

II. BACKGROUND/ RELATED WORKS

Although it is globally undeniable that cross-border e-commerce is on the rise throughout the world, there are many limitations in this field still yet to overcome. These barriers are highly affecting the satisfaction of e-commerce users [1, 10]. Due to these barriers and limitations, further research needs to be conducted and more investigations need to be achieved. Nisar et al. [11] have investigated the factors that influence consumer satisfaction and how that is related to user spending during e-commerce retailing. They focused on US e-commerce firms are impacted by these factors through selecting consumer spending in 115 leading American-based e-commerce retailers to construct the consumer price index. Authors [9] in have also studied the dominant factors affecting online shoppers in Malaysia. They used purposive sampling method to select the sample. Results shows that usefulness factor is the most dominant factor followed by ease of use. they concluded that more concerns should be given to privacy, trust, and protecting personal information during online shopping.

Various studies have found that trust plays an effective role in shaping shopping intentions of a customer. In their recent study, Oliveira et al. have modeled and empirically tested, using 365 responses, the consumer trust dimensions in e-commerce so that vendors can gain more user trust. The three trust dimensions of integrity, competence, and benevolence have been measured here. They also studied how various sources of trust such as firm characteristic and website infrastructure will affect dimensions of trust. Due to the importance of trust factor, Author in [12] have studied

its effect on e-commerce user satisfaction. The paper analysed the consumer's online decision-making process, elements affecting e-consumer satisfaction, and the effect of satisfaction on shopper loyalty to e-commerce. In their survey, Sharma et al. [13] have studied the contribution of service quality of websites and applications, in online platforms, on consumer satisfaction. They concluded that information quality and online service quality are key factors for e-commerce sustainability and consumer satisfaction.

Additionally, Authors in [2] have analysed and provided and understanding, assessment, and evaluation of the different features of online retailing and shopping in Malaysia. They used various t-tests and Chisquire tests to compare offline and online shoppers. Beyari et al. [14] have studied a different type of commerce called social commerce (SC) in which a consumer can interact with other consumer to conduct online shopping activities as well as exchange their experiences. In their paper, authors have investigated the factors affecting customer satisfaction in such type of business. They used Trust and Social Influence theories to develop a theoretical framework which helps in understanding factors affecting customer satisfaction in Social Commerce

III. RESEARCH METHODS

This case study has used simple random sampling method in order to make the data collected more reliable. This type of sample is defined as a subset of statistical population or larger set where each individual has equal probability to allow him be selected [15, 16]. According to author in [17], sampling is a methodology used by researchers to gather information from samples that might or might not represents whole population. Google forms has been used in this study as the instrument to deliver a series of survey questions to each individual sample. According to Tuckman [18], survey form is the most effective method to gather information from respondents. The survey forms are only effective if the items are built with consistency and reliability. With time and cost constrain, this method is the most efficient methodology. By using survey forms, respondent can remain anonymous thus being more honest in answering the survey [19].

This study focuses on questions to find the user satisfaction in using e-commerce platforms. First focus is to identify the factors that influence users to use e-commerce platforms while performing online purchase; whether e-commerce is providing more reliable options or not. Second is the design of e-commerce platforms (websites and mobile applications); what attracts users while interacting with the platforms. Furthermore, the study also looks for

other additional functions that should be incorporated into the e-commerce platforms to enhance users' experience.

The sample of this study are Malaysian online users of e-commerce platforms. A group of 1250 sample size have completed the survey forms where these forms have been checked and screened for errors or incompleteness. Selecting the sample size is based on confidence level of 95% and margin of error about 3%. Increasing the sample size was intended in order to minimize the margin of error; otherwise a sample size of 385 was enough (with 5% margin of error) [20, 21]. Upon completion of forms filtering, only 1039 have been considered as valid, which provides a success rate of around 83%. The sample group has been categorized based on sex and age of respondents. In addition, the software used to analyse the data resulting from this study was SPSS statistical software version 23 on Windows 10. The study has used various statistical techniques to analyze data generated. Frequency Distribution Analysis technique is used to determine the demographic details of the surveyed sample. Cross tabulation and the Pearson Chi-Square Test were also used to analyze different relationships between data under study [22,23].

IV. RESULTS

In this section, the findings obtained from the survey of this study will be shown where the data analysis collected will be depicted and discussed.

Table 1 represents the profile of respondent based on the sex gender involved in the survey. This study has surveyed 1039 respondents from multiple races and religions in Malaysian. Approximately, 72% of the respondent are female and the remaining of 28% are male. This is coherent with women's habit to shop. About 94% of e-commerce users are youth (below 30 years old). The age range shows that they are from millennial and Z generations. However, 1.4% respondent comes from the elder ages (above 50 years old). This is an interesting data to be interpreted.

Table 1: Respondent Profile

Item		Frequency	Percentage (%)
Sex	Male	291	28
	Female	748	72
Age	20 years old and below	64	6.2
	21 – 30 years old	908	87.4
	31 – 40 years old	36	3.5
	41 – 50 years old	17	1.6
	51 – 60 years old	9	0.9
	61 years old and above	5	0.5

Table 2 shows the distribution of respondents according to their experience with e-commerce. It shows that 87.3% of respondents already have sufficient knowledge about e-commerce in Malaysia while the remaining still remain clueless about it. Table 2 also depicts that most Malaysians shop a lot using e-commerce platforms. Around 89% of respondent shop online at least once a week while 86% of respondents said that they have at least used one e-commerce platform to do businesses transaction.

Table 2: Distribution of respondents on e-commerce knowledge and users experience

Item		Frequency	Percentage (%)
Knowledge about e-commerce platforms in Malaysia	Yes	907	87.3
	No	132	12.7
Experience shopping online	Yes	956	92
	No	83	8
Frequency of shopping online (weekly)	Never	114	11
	1 time	760	73.1
	2-4 times	62	6
	5 times and more	103	9.9
Experience using e-commerce platforms for shopping purpose.	Yes	897	86.3
	No	142	13.7

The study also managed to identify 3 top e-commerce platforms being used by Malaysians. The most popular is Shopee (87.2%) followed by Lazada (50.3%) and mudah.my (23%). Surprisingly, although Malaysian are one of the largest users of Facebook, only 19 out of 1039 of respondents (1.8%) are using e-commerce on Facebook. Amazon and e-bay also are not widely used by Malaysian despite being among the pioneers in e-commerce. This is an interesting area for further investigation.

Table 3: Most e-commerce websites and applications used

	Frequency	Percentage (%)
Shopee	906	87.2
Lazada	523	50.3
Mudah.my	239	23
Amazon	61	5.9
E-bay	35	3.4
Instragram	22	2.1
Zalora	18	1.7
Hilal bookstore	12	1.2
The Onemall	13	1.3
Facebook	19	1.8

Additionally, based on Table 4, majority of the respondents stated that the e-commerce can provide them the ease of use in term of their shopping experience, as much as 95% of respondents.

Table 4: The ease of shopping experience

Item		Frequency	Percentage (%)
Does E-commerce platforms ease the shopping experience?	Yes	982	94.5
	No	57	5.5

Based on below-mentioned, Table 5 shows the factors that influence users or consumers using the e-commerce. The main factor is the low cost of products purchased with a percentage of 59 of respondents. Payment security and assurance to return items are also significant factors with 40% and 42% respectively.

Table 5: Factors that influence the usage of e-commerce platforms

	Factors	Frequency	Percentage (%)
1.	Items quality	335	32.2
2.	The ease and assurance to return items	432	41.6
3.	The ease and security of payment	417	40.1
4.	Low cost delivery	270	26
5.	Fast delivery	342	32.9
6.	Speed of ordering	434	41.8
7.	Minimum risk of purchase	105	10.1
8.	Low cost product	612	58.9
9.	Better offers	16	1.5
10.	Time save	14	1.3

Table 6 shows that 63% of respondents are attracted to e-commerce platforms based on how the elements are

Table 6: Attraction factors affecting the use of e-commerce platforms

	Design	Frequency	Percentage (%)
1.	Appealing colour	472	45.4
2.	Elements arrangement on website	657	63.2
3.	Text layout and font type	423	40.7
4.	Customer information display	571	55
5.	One screen display	280	26.9
6.	Appealing graphics	513	49.4

arranged in the platform site. Site graphics of platform also affect consumers with around 50%. Various factors also affect user attraction to using platforms as table depicts.

Based on Table 7, many respondents stated that the most facilitating and necessary function while they surf the e-commerce platform is the function to check and revise their previous products as much as 65%. The second highest function is the online payment at 58%. With the availability of price checking and comparison function, buyers will be able to check their previous products and the compare the price of the products as that may suits their budget.

Table 7: Necessary and facilitating functions while using e-commerce

	Design	Frequency	Percentage (%)
1.	User registration	364	35
2.	Payment	602	57.9
3.	Delivery options	335	32.2
4.	Search	561	54
5.	Price checking and comparison	670	64.5

Additionally, majority of the respondents stated that the complaint reporting function need to be included and incorporated in the e-commerce platforms with a total of 961 users (92.5%). They state that it is necessary for users to lodge their reports and complains if any problem occurred.

Table 8: Consumer reporting need to include on e-commerce platforms

Item		Frequency	Percentage (%)
Report option to be incorporated into e-commerce platform	Yes	961	92.5
	No	78	7.5

Generally, in table 9, many respondents expressed their level of satisfaction is quite high towards the use of e-commerce in Malaysia. However, only about 75% of respondents (783 people) are slightly satisfied with it due to that the system can be improved in many aspects. Therefore, Table 10 shows the necessary recommendations of improvement for e-commerce platforms which includes several aspects derived from the study conducted.

Table 9: Consumer satisfaction level towards e-commerce platforms in Malaysia.

Item		Frequency	Percentage (%)
Satisfaction of using e-commerce platforms	Not satisfy	42	4
	Satisfy	783	75.4
	Very satisfy	214	20.6

Table 10: Recommendation aspects on improvement towards the use of e-commerce.

Suggestion
1. Prioritize product quality.
2. Setup one-stop centres in every state to ease the delivery and item collection.
3. Issue receipt along with the parcel.
4. Enhance the customer service for inquiries and complaints.
5. Diversify the inventory.
6. Increase the number of less costing items.
7. Provide clear and more accurate information on items.
8. Ability to identify scammers among merchants and customers.
9. Provide more high-quality images of real products.
10. Introduce more user-friendly websites or applications.
11. Increase the number of e-commerce platforms in Malaysia.

V. DISCUSSION

The purpose of the study conducted is to gather information about the consumers' satisfaction level towards the use of e-commerce platforms in Malaysia. The background of this study showed that the main respondents were the millennial group of age or youth consumer aged 21 to 30 years old. These are the norms for this group of consumers as they are more interested in using the latest and current technology, compared to other level of ages. The finding shows majority group of the respondents is the group of young people. The result of the study found that most of the respondents used to spend on various e-commerce platforms as much of 61%.

In addition, most of these customers have chosen Shopee as their main platform for online purchase. Most probably due to that Shopee is a platform that have a lot of great promotion. It is followed by Lazada and Mudah.my. When looking into the factors that influence the usage of e-commerce platforms, it is found that the main factor is the low price of products and followed by the ability to perform online business transaction without user leaving your place. Furthermore, the factor of convenience, warranty and return policy attracts consumer to use any e-commerce platform.

Majority of the respondent in this study also acknowledged that the satisfactory level towards the usage of e-commerce platforms was at only satisfied or moderate level. That is due to some improvement aspect can be done. Amongst of the improvement options that need to be done is to offer more attractive products at cheaper or competitive prices. To conclude it, this research may give an implication in fruitful manner in term of the improvement of e-commerce platform to attracts more consumers doing business transaction through e-commerce platforms. Whenever there is an increase in the use of e-commerce platforms among consumers and users, profit for traders also increases.

VI. CONCLUSION

This study brings a vital discovery about the satisfaction of e-commerce platforms use among consumers in Malaysia. The use of e-commerce platforms has become rapidly developing phenomenon worldwide in general, and especially in Malaysia. About 87.3% of respondents became consumers in the e-commerce system, while 89% of majority consumers doing online transaction for at least once a week. This study also found that Shopee is the most preferred choice of e-commerce platform among Malaysian customers. Furthermore, this study found the factors that influence customers to use e-commerce platforms where the most important factor is the interest in purchasing inexpensive prices product with 58.9%. In addition, the convenience of returning policy (41.6%), the ability to perform order quickly (41.8%), secured and convenience payment transactions facility (40.1%), and swift goods delivery (32.9%); all that are also effective factors to use e-commerce platforms. With this study, it can be concluded that more than 96% of respondents are satisfied with the use of e-commerce platforms in Malaysia. Additionally, we have found out how many customers are satisfied with the use of e-commerce platforms as well as the factor that drive customer to use e-commerce platform. The use of e-commerce platforms in Malaysia can be expanded further while improvements can be made to any aspect that is necessary to encourage customers to use e-commerce platforms

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