

The Impact of Logistics Services On the E-Shoppers' Satisfaction

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Abstract— In a digital era, E-commerce is fast-growing industry. People never thought to live without E-commerce. A day without E-commerce would be complicated, inconvenience and impossible. There are many components in online shopping market that play important roles in satisfying online shoppers. One of it is logistics services which influence online shoppers' satisfaction level. Thus, this study mainly explore how logistics services may influences online shoppers' satisfaction level. The specific aim of this paper is to determine the main logistics services elements that influences satisfaction of online shoppers. A total of 178 respondents who have experienced in online shopping were interviewed face-to-face using a structured questionnaire. Pearson correlation and multiple regression were used to analyze the data. The findings from the study revealed that service recovery, delivery service and customer service were the factors positively influencing the satisfaction level of E-commerce shoppers. The results of this study would helpful for online retailers to identify ways for improvement of their services especially from logistics perspective that eventually will enhance shoppers' loyalty and enhance satisfaction.

Keywords— *Logistics Services, Satisfaction, E-commerce, Online Shopping*

1. Introduction

E-commerce or electronic commerce is very popular in this digital era. The process of buying and selling of products or services easily can be done via the Internet. For many of us, E-commerce become an important platform to carry out daily tasks, like online payment and online shopping. Nowadays, people never thought to live without E-commerce. A day without E-commerce would be complicated, inconvenience and impossible. E-commerce, is not to show our luxurious lifestyle but become as a necessity for many of us.

In Malaysia, E-commerce development especially from the year 1998 to 2009 were not achieved many important milestones. There were few e-marketplaces, online shopping sites, online payment websites, logistics and other service providers entered the E-commerce industry. The significant

ones are the launch of Lelong, Air Asia and the introduction of online payment getaway companies. However, since 2011 and onwards, E-commerce has started to kick start in Malaysia. In line with the advancement of Internet and smartphones, many companies from various industries grabbed the opportunities to start E-commerce. It is notable that there are many online shopping platforms were created in 2015. As time goes by, many new categories were emerged in the digital marketing [11].

1.1 Online Shopping

Online shopping was a type of electronic commerce [29]. It allows consumers to buy products or services directly from internet retailers using mobile devices such as computers, smartphones and tablets. In recent years, people can shop easily through internet. They might feel pleasure and convenient when they purchase products through online. Everyone was capable to click or tap on the website to browse on their favorite online shops. They can select, compare and buy their favorable products in just a few minutes [34].

According to the latest statistics revealed in [11], overall 83% of people in Malaysia have shopped online where men aged 36 years old shopped 1.5x more than female in the same age group. Meanwhile, the non-online shoppers (17%) said "Yes" to shop in the next 12 months. The married couples are 2x more likely to give a try to online shopping than singles. In terms of frequency, 59% Malaysian online shoppers shop online at least once in a month or more frequently. Most of the shoppers (80%) shop on their smart phones. This might be due to the high entrance of smartphone and tablets to the market [21]. The improved features of smartphones and tablets make online shopping become easier and more convenient without the needs of desktop computer which is unmovable to other place.

Furthermore, a survey done by [5] indicated that the top three online shop in Malaysia were Lazada, Groupon and Zalora. About 34% of the Malaysian's shopped from Lazada. Lazada is selling varieties of products across many categories. This make Lazada

to stand on top compared to other online retailers. There were 19% used Groupon to purchase coupons and cash vouchers with a good deal for money that paid. While, Expedia is listed as preferable website for travelers (8%). This website provides consumers the service of booking hotels, flight tickets and car rental. The consumers could do booking before travelling. The online shops that sell bags, accessories, home & living, electronic and others including Ensogo (7.2%), Rakuten (6%) and Shoppeepanda (5.1%), each shop had occupied below 10% among the favorite online shops in Malaysia. This might be due to too many similar shops that sell almost same products. Moreover, retailers also take opportunity to promote their products in social media such as Facebook and Instagram. Hence, consumers have more choices to buy this category of items from various online retailers. In the category of food delivery, consumers chose Foodpanda (1.5%) as the best delivery service provider.

It can be concluded that Malaysians more knowledgeable and equipped with ICT information. Internet business will never ends with the existence of ICT. It added value in the customer service because customers can make transactions regardless of time and place barriers. Transactions can be done anytime, without any limit. In fact, this will become a trend in today's modern lifestyle. In accordance with the present life, especially for working people, time for shopping is very limited. Therefore, the e-commerce is a major option to purchase goods or services.

1.2 *Dilemmas Faced by Online Shoppers*

Malaysians are becoming an increasingly connected society [33], with the growth of devices connected to the internet paving the way for the flourishing of online retail. Even though E-commerce are very attractive and growth in a fast pace, there are also many challenges that need to overcome. Online retailers should recognize several other key challenges when eyeing international expansion opportunities. According to the recent survey carried out by Selangor Information Technology & E-commerce Council [33], 47% of their respondents clearly indicated that they are satisfied or have no issues with online shopping, while others 53% clearly indicated that there is still room for improvement. From those respondents who are unsatisfied, 39% indicated dissatisfaction with current delivery services, whilst another 39% are unsatisfied with the products sold online, citing issues with unclear, misleading or insufficient product descriptions. 26% indicated dissatisfaction with customer service, lack of trustworthiness of sellers, or a lack of proper after-sales service. 13% indicated issues with misrepresentative or inaccurate pricing on products. Within the segment of delivery

services, 50% have complained of slow or late deliveries, 38% felt that delivery providers are incompetent or unreliable, 12% indicated issues with tracking and 7% complain about missing or damaged goods. The facts were supported by study carried out by [36], whereby only 12% of people are really satisfied, and the remaining 38% is somewhat satisfied. They claimed that there is still room for improvements.

Most of the past studies on online shopping behaviour found that customers' satisfaction level influenced by factors like convenience [17], website design [10], information [2], response time [14] and logistics service [16]. Among these factors, logistics services is getting more attention while [22] have highlighted that logistics services are important as other marketing components to enhance customer satisfaction. This is supported by [16] and other past researchers [12] that just-in time delivery become priority for customers which affects their satisfaction level.

Thus, e-retailers need to ensure to meet customers' needs and wants as customer satisfaction is the key for maintaining the profitability of E-commerce industry. Thus this paper seeks to address the following questions, (i) What is the relationship between logistics services and satisfaction level of e-shoppers? (ii) What are the logistics services that mainly influence e-shoppers satisfaction level? The paper is divided into five main sections that are introduction, reviews on relevant literatures and followed by the methodologies applied in this study. The final sections covered results and discussion, policy implication and future research.

2. **Literature Review**

2.1 *Delivery Service*

The delivery service is related to the ability and capability of the supplier to deliver merchandise to a consumer's based on the desired lead time. It is imperative as it will lead to the consumer's happiness and loyalty. Thus, the effective planning and proper strategy are mandatory to ensure the desired merchandise can be delivered on time [38]. One of the vital elements in the E-commerce environment is the effectiveness of the merchandise coordination in meeting the consumers demand. A success of E-commerce business is depending on how competence the supplier may deliver the merchandise regardless of consumer's location. Therefore, it is crucial to ensure the required merchandise can safely deliver to the consumer's location without any postponement due to ineffectiveness of delivery service. According to [19], postponement may negatively affect the E-commerce business performance. Hence, the

effective delivery service in fulfilling consumer demand is tremendously important.

On the other hand, e-retailers should priorities the delivery service and set a benchmark for the feasible lead time that may fulfil the consumers request at any occasions. Consumers not only enlighten on the on the delivery time, nevertheless the quantity, quality and readiness of the merchandise is also playing a significant role in the E-commerce shopping experience [32]. Additionally, they also highlighted a few approaches that need to be considered by the e-retailers, namely the readiness of stocks or having an adequate stock in hand, the ability to provide accurate virtual stocks to consumers, as well as the logistics information system that may provide a real-time information to a consumers. By having the logistics information system, it helps in streamlining the whole process throughout the logistics operations from the upstream to the downstream processes.

2.2 Reverse Logistics

Reverse logistics is a process of moving goods from downstream to the upstream due to disproportionate criteria from the consumer's perspective. Reverse logistics also refer as aftermarket transaction. Due to the difficulties in reverse logistics processes, 85% of the consumer prefer not to constantly perform an online shopping. Approximately every post-purchase online shopping required a reverse logistics service due to so many reasoning which includes damage or defect merchandise, merchandise that not meet consumer inclination and many more reasons. E-retailer who are competence in providing transcend reverse logistics service will result in almost 82% re-purchase intention in online shopping [27]. Thus, it is paramount to ensure the completeness of the delivery service can be carry out so that any unnecessary or additional work required due to improper transaction can be avoided which at the end consumer satisfactory can meet.

Earlier study made by [28] highlighted that, a proper planning, implementation, and control of the required merchandise is important to ensure the efficiency, and cost effective can be achieved whereby [35] in their study also supported the point. As the increasing demand in an online shopping, a reverse logistics no longer seen as a hope nonetheless it is a need in the E-commerce businesses. Reverse logistics in E-commerce are inevitable in any online hopping. Hence, e-retailers should focus on the post-purchase consumer experience at a maximum level of consumer satisfaction. No doubt, a positive consumer experience will result in consumer loyalty to re-purchase. Thus, as suggested by [3], an effective mechanism such as the use of efficient computer network technology in handling reverse logistics must be in place.

2.3 Product Quality

In any part of the world, consumer are authentically concerned on the product quality that they purchased. It is a substantial measurement of the perceive performance towards approaching the customer satisfaction specifically in an online shopping [8] [31]. Research done by [39] conclude that, effectiveness in managing the E-commerce product quality and selective strategies being employed may enhance consumer belief and loyalty which in a way will improve consumer positive intentions to initiate the re-purchase.

Each one of the consumer having different expectations when performing an online shopping. Obviously, consumers are satisfied whenever their perceived expectation exceeds perceived likelihood. On the other hand, they will feel dissatisfied when what they received falls below their perceived expectation. Product quality works in two way direction whereby good product quality able to improve the online retailer's reputation as well as increase the chance of consumer retention. Additionally, consumers will act as a marketer to attract new consumer whenever they satisfied with the service or product delivered. Thus, it will increase the retailer's profitability [6].

2.4 Customer Service

Customer service in an online shopping is defines on how responsiveness the online retainer respond to the consumer demand. Customer service is not limited to just answering consumers' questions and providing an appropriate information, it is also including the understanding of the unique needs of the consumers. According to [26], customer service dwells various stages which encompass before, during and after purchase. Thus, an outstanding customer service is imperative in order to maintain an ongoing relationship with the consumer and remain competitive.

Whenever an online retailer able to react immediately by giving a helping hand and more concern, an exceptional relationship with their consumers are strongly built. This is because, an online shopper also yearning the same priority as brick and mortar transaction when they required any supplementary services [34]. Therefore, it is important for an online retailer to maintain the efficiency of customer service by any means including email, phone call, social media, and interactive blogs. Additionally, in order to maintain a good reputation, a right product, on time delivery, product with a good condition and attractive packaging plays an immense aspect which may improve consumer satisfaction. Though the customer service is very subjective and very difficult to measure, an online retailer must establish extra effort to improve their customer service level.

2.5 Service Recovery

Service recovery is sparked from the service failure encounter by the service or product provider. Service failure is unavoidable in every company, especially in an online transaction. It is because, different consumer will have different needs and requirements. Therefore, an online retailer must implement relevant action to recover dissatisfied consumer so that able to comfort them, solve their problems and earn the loyalty from them. In fact, ahead of the consumer complaints and commit a negative word-of-mouth, an adequate service recovery tactic should in place to tackle the possible issues. An online retailer should consider few factors which include environmental factors, consumer factors, relationship factors and organizational factors [18].

The whole process of service recovery involves the interaction between an online retailer and the consumer. Undoubtedly, the final result is to turn the dissatisfied consumer to become satisfied consumer. A good service recovery system must be able to solve a problem in order to prevent dissatisfied. According to [30], a well-planned service recovery provides an opportunity for an online retailer to increase consumer satisfaction and consumer retention. Thus, it is essential to understand the service recovery strategy impacting customer satisfaction.

2.6 Satisfaction of E-Shoppers

According to past researcher [37], the expectation between before purchase and after purchase performance of a product or service may directly influence on customers repurchase intention. This is supported by Expectation-Confirmation Theory (ECT), consumers' intention to repurchase a product or service depends on their previous experience of using the product or service [1]. Meanwhile, [25] defined satisfaction as "the summary psychological state resulting when the emotion surrounding disconfirmation expectations is coupled with the consumer's prior feeling about the consumption experience (p. 29). Commonly, when a consumer perceived worse performance than their expectations, their expectations are negatively confirmed. On the other sides, when their perceived performances are better than their expectations, their expectations are positively confirmed. In addition, consumers' expectations will influence their satisfaction level [4]. [13] claimed a higher level of expectation can increase satisfaction level, while a lower level of expectation will reduce satisfaction level [13].

Meanwhile [25] stressed out that generally consumer dissatisfaction results from the disconfirmation or disappointment of individual expectations

concerning a service or product delivery. Oliver highlighted that worse-than-expected outcomes resulted consumer dissatisfaction. In a normal circumstances, e-shoppers consistently leave the online retailer due to the inability of the online retailer to react on their issues [7]. Passive and lack of sensitivity of an online retailer customer service towards the consumer problems are the main controversy facing by most of the online retailer. Hence, the accountability towards the e-shoppers obstacle should be the main priority that the online retailer should look into [20].

3. Methodology

3.1 Research Design

This research applied quantitative method to find out logistical problems faced by the online shoppers. The study was carried out with a survey through a structured questionnaire.

3.1.1 Data Collection Technique

Both primary and secondary data were collected for the purpose of completing this research. Primary data were collected through face to face interview. A structured questionnaire was used during the interview session. The data collection were carried out for a month, from January 2018 to February 2018. Meanwhile, secondary data were collected through website published articles, newspapers and relevant journals. Most of the latest statistics on Malaysian e-shoppers behaviors, experience and expectations were taken from [11]. These information were obtained to study on the current trends of e-shoppers from various backgrounds.

3.1.2 Designing the Questionnaire

Referring to some relevant studies, a structured questionnaire was developed which comprised three sections. Both section one and two consisted of close ended, open ended dichotomous and multiple choice questions. The first section is designed to capture the respondent socio-demographic profiles. In the second section, questions on respondents purchasing behavior were structured to obtain information on online shoppers purchasing behaviour and the final section was designed to determine the factors that influencing online shoppers' dissatisfaction. To measure the attitude of the respondents, declarative statements using a five-point Likert scale were used where 1 is 'strongly disagree', and 5 is 'strongly agree'. The online shoppers were asked to indicate their agreement or disagreement on each statement.

3.1.3 Sampling Design

A non-probability sampling technique was applied to meet the needs of the study. Convenient sampling is one of the non-probability technique was chosen to conduct the survey. This technique allows the researcher to select the respondents according to their convenience and accessibility without any complication.

3.1.4 Sampling Size

Since the population of this study is infinite, formula applied to determine the sample size by taking 95% confidence level into consideration. To achieve the required confidence level, the sample size would be 384. However, in this study a total number of 178 respondents only volunteered to participate. According to past literatures, sample sizes larger than 30 and less than 500 are appropriate for most research. Hence, the sample size is sufficient to represent the population. The survey was conducted with the shoppers who experienced shop via online. The respondents were asked to answer the questions related to their purchasing behavior and dissatisfactions faced by them.

4. Data Analysis

The data was analyzed using descriptive analysis, correlation analysis and regression analysis. Descriptive analysis was used to analyze the results from the survey by converting all numerical data into pictorial form. Frequency distribution was drawn to describe the demographic profiles of the respondents. Meanwhile, correlation analysis was used to test the relationship between independent variables (product quality, delivery service, service recovery, customer service, and reverse logistics) and dependent variables (satisfaction of E-commerce shoppers). Further, multiple regression analysis was used to evaluate the strength and direction of the relationship between the various variables. Regression model used in this study as follows:-

$$y = \alpha + B_1 IV_1 + B_2 IV_2 + B_3 IV_3 + B_4 IV_4 + B_5 IV_5 + \epsilon$$

y = Satisfaction of E-commerce shoppers

IV_1 = Delivery Service

IV_2 = Reverse Logistics

IV_3 = Product Quality

IV_4 = Customer Service

IV_5 = Service Recovery

The regression model explained the relationship between independent variables and dependent variable. The regression model investigates the effect of delivery service, reverse logistics, product quality, customer service, and service recovery on satisfaction of E-commerce shopper. The following hypotheses were proposed:

H1: There is a significant relationship between delivery service and satisfaction of E-commerce shoppers.

H2: There is a significant relationship between reverse logistics and satisfaction of E-commerce shoppers.

H3: There is a significant relationship between product quality and satisfaction of E-commerce shoppers.

H4: There is a significant relationship between customer service and satisfaction of E-commerce shoppers.

H5: There is a significant relationship between service recovery and satisfaction of E-commerce shoppers.

5. Result and Discussion

5.1 Social Demographic Profile

Majority of the respondents who participated in this research were female (52.8%) who aged between 26 years old to 35 years old. Most of them (n=82) had monthly income above RM2,000 and live in city areas. Refer Table 1.

Table 1. Social Demographic Profile

Social Demographic Profile	(n)	(%)
Gender		
Male	84	47.2
Female	94	52.8
Total	178	100
Age		
19 to 25	47	26.4
26 to 35	116	65.2
36 to 45	12	6.7
46 and above	3	1.7
Total	178	100
Marital Status		
Single	142	79.8
Married	35	19.6
Divorced/Widowed/Separated	1	0.6
Total	178	100
Monthly Income		
RM 0 - RM 2,000	59	33.1
RM 2,001 – RM 5,000	82	46.1
RM 5,001 – RM 8,000	20	11.2
RM 8,001 – RM 10,000	4	2.3
More than RM 10,000	13	7.3
Total	178	100
Residential Area		
Suburban	11	6.2
Urban	31	17.4
Rural	9	5.0
City	120	67.4
Village	6	3.4
Other	1	0.6
Total	178	100

5.2 Online Shoppers Purchasing Behaviour

The findings from this study indicated that majority of the respondents (n=65) have been shopped online for the past 6 months occasionally. 50% of the respondents purchased items via online at least less than three times within 6 months. They also claimed that they spent approximately two hours only for shopping through online. Basically, they were not active shoppers.

Table 2. Online Shoppers Purchasing Behaviour

Description	(n)	(%)
How long respondents have been shopping through online?		
Last 6 months	65	36.5
6 months – 1 year	17	9.6
1 – 3 years	57	32.0
3 – 5 years	17	9.6
More than 5 years	22	12.4
Total	178	100
How often respondents shop online in the last 6 months?		
Rare (only 1 time within 6 months)	42	23.6
Occasional (1 - 3 times within 6 months)	89	50.0
General (1 - 3 times in a month)	31	17.4
Often (4 - 10 times in a month)	11	6.2
Frequent (more than 10 times in a month)	5	2.8
Total	178	100
How long shoppers spent on online shopping?		
Less than 1 hour	45	25.3
1 hour	48	27.0
2 hours	49	27.5
3 hours	7	3.9
More than 3 hours	29	16.3
Total	178	100

As this study dominated by the females, the findings of the survey revealed that mostly purchased items by them were fashion and accessories (n=134), followed by health and beauty (n=91) and home and living (n=75). Besides, the respondents also interested on home electric appliances (n=37) as well electronic gadgets such as mobile, IT and camera (n=32). However, the least purchased items by the shoppers were sports and automobiles related equipment. Refer Table 3. The outcome of this survey closer to statistics released by [23], whereby the three category of products mostly purchased by Malaysian online shoppers were included fashion & accessories (16%), home & living (15%), and health & beauty (13%). Those items such as home electric, mobile IT and camera as well sports and automobiles were in the medium range of purchases because those products are costly. Thus, consumers would prefer to buy directly from stores with a reasonable price as well they able to test the items in the store before they purchased it.

Table 3. Types of Products Mostly Purchased by Online Shoppers

Type of products / services that respondents usually purchased	Frequency (n)
Fashion and Accessories	134
Health and Beauty	91
Home and Living	75
Home Electronic	37
Mobile, IT and Camera	32
Books	29
Sports and Automobiles	23

5.3 Relationships between Logistics Problems and Online Shoppers Satisfaction

Pearson's correlation analysis have been used to test the relationship between independent variables and dependent variables. Referring to Table 4, it can be concluded that service recovery (0.668), delivery service (0.621), customer service (0.61), and product quality (0.599) have a strong relationship with satisfaction level of E-commerce shoppers. However, reverse logistics (0.454) has moderate relationship only with satisfaction level of E-commerce shoppers.

In the year 2016, more than 95% of shoppers who are satisfied with online shopping [11] mainly give importance to price of products with the highest rating 3.9 out of 10. In the following year (2017), shoppers no longer consider solely on price, but started to give importance to logistics services such as delivery activities. The statistics revealed that 90% of shoppers are willing to wait up to 1 week for their products to arrive. Meanwhile, 46% of shoppers expected their purchases to reach within 3 days. Even, some of the shoppers willing to spend extra cash for express delivery. They are willing to pay minimum RM10 as delivery charges for speed delivery [11]. Now, e-shoppers added another one in their list of expectation. Shoppers looking for recovery service from e-retailers. Since different shoppers have different needs and requirement, complaints and negative feedbacks are unavoidable. Therefore, an online retailer must find relevant tactics or action to recover dissatisfied shoppers to comfort them, solve their problems and earn the loyalty from them.

Table 4. Pearson Correlation

Variables	Pearson Correlation
Delivery Service	0.621
Reverse Logistics	0.454
Product Quality	0.599
Customer Service	0.610
Service Recovery	0.668

From the above results, conclusion that can be made that the most important logistics elements that lead to satisfaction among E-commerce shoppers were service recovery, delivery service, customer service,

and product quality. Hence, an online sellers must provide a good compensation to recover their customer, deliver the right products to the exact place at the promised time, provide a good service to the customer, and ensure the products delivered in good condition. Online shoppers able to get better shopping experience if online retailers concern on those elements [39].

5.4 Regression Analysis

Regression analysis was used to explain the impact of changes in the independent variables on the dependent variable. Model 1 analyzed the significance of delivery service, reverse logistics, product quality, customer service and service recovery.

Table 5 shows the results of regression analysis, satisfaction of E-commerce shoppers was treated as dependent variable, 55.5% of the variation satisfaction of E-commerce shoppers can be explained from the five independent. Three independent variables have significant and positive relationship with satisfaction of E-commerce shoppers. The significant level of service recovery ($p = 0.000$) and delivery service ($p = 0.001$) is at 1% of significance. Customer service ($p = 0.024$) is significant at 5% level of significance.

Table 5. Regression Analysis Results

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Beta		
	(Constant)	-.286	.231		
Delivery Service	.343	.100	.253	3.424	.001
Reverse Logistics	-.013	.061	-.014	-.215	.830
Product Quality	.137	.099	.110	1.388	.167
Customer Service	.244	.107	.170	2.277	.024
Service Recovery	.399	.086	.351	4.618	.000
R	.745				
R Square	.555				
Adjusted R Square	.542				
R Square of the Estimate	.61693				

The result of this study is similar to [15], which also mentioned that service recovery affects the satisfaction level of E-commerce shoppers in e-retailing. According to [9], delays in delivering products will created customer dissatisfaction, which is an essential determinant for online shoppers. The result also similar to [17] which stated that customer

service enhance satisfaction of E-commerce shoppers. However, product quality ($p = 0.167$) and reverse logistics ($p = 0.83$) have no significant relationship with dissatisfaction of E-commerce shoppers. [24] mentioned that reverse logistics will not influence the dissatisfaction of E-commerce shoppers.

Beta coefficient explained the relative importance of the factors in terms of their contribution to the variance. Of the three factors, service recovery ($\beta = 0.399$) carried the heaviest weight in explaining satisfaction of E-commerce shoppers, followed by delivery service ($\beta = 0.343$) and customer service ($\beta = 0.244$).

It can be concluded that satisfaction is one of the main factors that divert the consumer decisions towards the repurchase intention. Failure to retain the consumer repurchase intention will eventually affect the online stores attainment. Thus, an online retailer should able to encounter consumer negative emotions which may result in an individual's thinking, decision-making, and actions towards the repurchase intention.

6. Conclusion and Future Research

This paper explores logistics services that influences online shoppers' satisfaction level in Klang Valley. The results indicate that service recovery, delivery service and customer service were the main factors positively influencing the satisfaction of E-commerce shoppers. But reverse logistics does not affect satisfaction level of consumers.

Online retail is developing rapidly. The number of retailers keeps increasing and this lead to high competition among them. One of the way to keep existing customer loyal is through good service. Online retailers need to ensure shoppers satisfied with their purchase, not only products but also logistics services. This also would attract more new shoppers to shop.

In the future, E-commerce should reassure to provide greater delivery service with tracking advancement. Beyond that, there is a need for E-commerce retailers to find strategies to attract and keep their customers for longer term. Of course, through loyalty programs, customers more likely to shop at a specific shops. Hence, in order to compete in the fast moving era, E-commerce business should customized their loyalty scheme for their customers. E-commerce businesses are going beyond than expectation. Customer may experience a fun and cool way of shopping through online. To conclude, it can be said that Malaysia's E-commerce industry has a bright future. It just need a new way to capture themselves online.

The development of IoT technologies lead the process of obtaining information about a product or service quality more accessible, accurate and reliable. With IoT, online retailer able to improve their abilities in logistics service quality. Therefore future research can explore how online retailers can apply IoT in their logistics systems.

It is increasingly important for both academics and governments to understand how the Internet of Things (IoT) can be integrated, because they are making policy about it. Academicians should incorporate research and discussion of ways to take advantage of the IoT. Both the theoretical and practical knowledge would encourage to develop innovative methodologies. The importance of collaboration between departments, universities, government, private industries will be critical to successful implementation.

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