The Factors that Influence Consumers' Satisfaction on Purchasing Fresh Agriculturalproduct E-Commerce: Case Study in Ampang Selangor

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Abstract
The objective of this study is to investigate the factors that influence consumer's satisfaction on purchasing fresh agricultural product in on e-commerce. The primary study approach was used for data collection. The quantitative research method was used to collect data for 384 respondents in Ampang, Selangor, via an online questionnaire using simple random sampling technique. The factors that had been observed including service quality, product quality, price, and promotion and discount. To evaluate the hypothesis, mean analysis, descriptive statistics, multiple regression, and factor analysis were conducted using SPSS software. According to correlation analysis, service quality, promotion, and discount were significantly correlated with consumer's satisfaction on purchasing fresh agricultural products via e-commerce and based on factor analysis, the most dominant factor is price. The were five sub-variables of price were loaded such as the price of agricultural products purchased by e- commerce platformis cheap, the platform is cheap for agricultural products, most of which are free of charge, prices are more reasonable in ecommerce than physical stores, the selling price of goodson the e-commerce platform is according to the price in the current control and I am satisfied with the prices offered for agricultural products on the e-commerce platform. Hence, the consumers considered the price factor the most when purchasing fresh agricultural product on e-commence.
Keywords: E-commerce, Consumer Satisfaction, Service Quality, Product Quality, Price.

Introduction
Agriculture is the most significant industry in emerging nations like Malaysia. In fact, this sector is oneof the most fundamental traits that distinguishes developing nations from industrialized ones. During the COVID pandemic, when most of the population was focused on agricultural-based economic activities, this agricultural sector also helped build up Malaysia's economy.

The global economy in general and international trade have suffered massive losses from the coronavirus pandemic. Global lockdown, social distancing, and other measures introduced to limitthe spread of the COVID-19 pandemic urged consumers to purchase more on the online marketplaces.Income losses, restricted transportation options, and pandemic preparedness measures have driven B2B producers and sellers to cut manufacturing and marketing expenses. B2C marketplaces saw a drop in buying power and cross-border mobility. Products that provide comfort and warmth to a living area have garnered more attention than usual. Overall, the situation's ambiguity and unpredictability causedcustomers to postpone some of their requests.

The pandemic caused a significant rise in online sales. As physical store visits decreased and many individuals ran out of money, they resorted to the internet to shop, resulting in a rise in online transactions. Consumers were normally wary buyers even before the outbreak. Consequently, certain purchase categories, such as experiences, have been increasingly devalued on their priority lists,and COVID-19 has further strengthened this tendency. The COVID-19 outbreak has changed many people's lives and motivations, prompting them to shift their spending patterns.

Quality Service

Purchasing on an e-commerce platform is a common internet activity these days. Furthermore, when COVID happens, regardless of whether various products like groceries, home appliances, or other goodsare purchased. Jin (2021) believes that service quality is related to consumer happiness and is influenced by product or service expectations. As a result, businesses do everything in their power to fulfil or even go beyond the expectations of their customers to boost customer satisfaction.Manuscript submitted must be original work that has not been published or under consideration for publication elsewhere.

Product Quality

PQ was defined by Ziaullah et al (2014) as the product's actual functionality and consistency between the quality specifications of online shops and the actual quality of the physical product. Product availability, product selection, and product quality are the PQ assessment elements employed in this study.

Price

Price always has a significant impact and influences the choice of a good or service. Al- Msallam (2015)claimed that since consumers always judge the value of services based on their prices, the price is a crucial factor in producing consumer satisfaction. According to Martin et al (2007), consumer satisfaction judgement directly influences perceived price. At the same time, customer loyalty indirectly influences perceived price fairness, which in turn influences price acceptance.

Promotion and Discount

A promotion or discount is an example of a marketing communication tool that can be used to boost revenue. Consumers' inclinations to make purchases are susceptible to being momentarily influenced by the appeal of discounts and promotions (Shaddy & Lee, 2020). Consumers can be influenced to switch brands, increase their spending, and make more purchases when they are exposed to sale promotions and discount activities.

Material and Method

The most applicable methods for analyzing the data in this study are using descriptive analysis, factor analysis and multiple regression analysis. A descriptive analysis is a practical instrument for analyzing the demographics of respondents because it provides a summary of the information and data gathered.To measure the first objective of the research, the researcher was using the factor analysis to look at how the independent variables and the dependent variables relate to each other. The data of the relationship between the independent variables (quality service, product quality, price and promotion and discount) and the dependent variable (consumer satisfaction on selling fresh agriculture products in E-commerce). This approach was used to conduct the study by presenting the respondents with a series of statements or questionnaires to assess the information regarding consumer satisfaction on selling fresh agriculture products in E-commerce. This approach was to assume about howthe relationship between the independent and dependent variables worked. For the second objective, used multiple regression. The multiple regression used in this study to determine the most influencingfactor that influences consumer satisfaction on selling fresh agriculture products in E-commerce. In other words, it determines to ascertain how the factors influence consumers satisfaction. Using this multiple regression to determine how strong two or more independent variables are related to one dependent variable. The data was collected, then compiled in SPSS to be analyzed, and the researcher used factor analysis and multiple regression to analyze the data.

Results and Discussion

i) Factor Analysis

Table 1

KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.976
Bartlett's Test of Sphericity	Approx. Chi-Square	18396.531
	df	300
	Sig.	.000

In this research, table 1 showed the KMO value was 0.976 and very acceptable for factor analysis. According to Field (2009), (KMO) and the overall measure of sampling adequacy (MSA) should be at least 0.6 and above for good factor analysis. This made the researcher consider which variables toinclude or collected more data. If the values were greater than 0.6 which near 1 it would show that itwas a good factor analysis. Based on the tables above, the KMO value was 0.976 which be considereda good factor and acceptable. So, we can say that factor analysis for the

data in this study is appropriate. Bartlett's Test is to measure the relationship between variables. For this data, Bartlett's Test is 0.000 which is highly significant($p<0.001$), therefore factor analysis is appropriate.

Table 2
Rotated Component Matrix

	Component		
	F1	F2	F3
E-commerce service quality platform is easy to operate.		.693	
The e-commerce platform was delivered on time		.754	
E-commerce platforms respond to customer requests immediately.		.680	
E-commerce platform can meet the needs of customers.		.748	
I am satisfied with the e-commerce platform's online sales service		.694	
I think that there are many types of fresh agriculture products to choose from in e-commerce.		.605	
I think the product's packaging is good quality and secure.		.572	
Accurate information of products purchasing online		.636	
I am satisfied with the freshness of agricultural products on e-commerce platform		.580	
I am satisfied with the quality of agricultural products on e-commerce platform		.573	
The price of agricultural products purchased by e-commerce platform is cheap	.738		
The platform is cheap for agricultural products, most of which are free of charge	.786		
Prices are more reasonable in ecommerce than physical stores	.743		
The selling price of goods on the e-commerce platform is according to the price inthe current control.	.699		
I am satisfied with the prices offered for agricultural products on the e-commerceplatform	.695		
Various attractive promotions and discounts are offered for agricultural productson the e-commerce platform.			.629
Attractive promotions and discounts influence to buy agricultura products in e-commerce compared to physical.			.628
stores.			
Attractive promotions and discounts will attract customers to buy agriculturalproducts in e-commerce frequent.			.636
I am feeling very worthy with the promotional offers and discounts available onthe e-commerce platform.			.586
I am satisfied with the promotions and discounts for agricultura products offeredon the e-commerce platform.			.582

The most dominant factor toward consumer satisfaction on purchasing fresh agricultural product on e-commerce was summarized in Table 2 The factor was arranged according to the percentage of total variance explained, and the most dominant factor between service quality, product quality, price and promotion and discount towards consumer satisfaction on purchasing fresh agricultural product on e-commerce. Based on the Table 2, the most dominant factor that influenced consumer satisfaction on purchasing fresh agricultural product on e-commerce was price. This factor contained of five sub-variables. The sub-

variables were, the price of agricultural products purchased by e- commerce platformis cheap (0.738), the platform is cheap for agricultural products, most of which are free of charge (0.786), prices are more reasonable in ecommerce than physical stores (0.743),the selling price of goodson the e-commerce platform is according to the price in the current control (0.699) and I am satisfied with the prices offered for agricultural products on the e-commerce platform (0.695).From this result, it shows that the most sub-variables were about the price. So, consumer give priority to price when purchasing fresh agricultural product on e-commence.

The second factor that influenced consumer satisfaction on purchasing fresh agricultural product on e-commerce is service quality and. This factor contained of five sub-variables that were e-commerce service quality platform is easy to operate (0.693), the e-commerce platform was delivered on time (0.754), e-commerce platforms respond to customer requests immediately (0.680) and e-commerce platform can meet the needs of customers (0.748) and I am satisfied with the e-commerce platform's online sales service (0.694).

Next, product quality also is second factor that in influenced consumer satisfaction on purchasing fresh agricultural product on e-commerce. This factor contained of five sub-variables that were I think that there are many types of fresh agriculture products to choose from in e- commerce (0.605),I think the product's packaging is good quality and secure (0.572),accurate information of products purchasing online (0.636) , I am satisfied with the freshness of agricultural products on e-commerce platform (0.580) and I am satisfied with the quality of agricultural products on e-commerce platform (0.573).From this result it showed that the most sub-variables were service quality and product quality.The results indicated that the respondents got several perceptions about service quality and product quality of influenced consumer satisfaction on purchasing fresh agricultural product on e-commerce.

The last factor was promotion and discount that influence consumer satisfaction on purchasing fresh agricultural product on e-commerce. There were five sub-variables that were obtained various attractivepromotions and discounts are offered for agricultural products on the e- commerce platform (0.629).Attractive promotions and discounts influence to buy agricultural products in e-commerce compared to physical stores (0.628).Attractive promotions and discounts will attract customers to buy agricultural products in e- commerce frequent (0.636).I am feeling very

worthy with the promotional offers and discounts available on the e-commerce platform (0.586) and I am satisfied with the promotions and discounts for agricultural products offered on the e- commerce platform (0.582).

Table 3
Total Variance
Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of SquaredLoadings		
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	21.416	85.663	85.663	21.416	85.663	85.663	11.064	44.255	44.255
2	.520	2.081	87.745	.520	2.081	87.745	10.873	43.490	87.745
3	.471	1.885	89.629						

Based on table 3 above, it showed that there are three factors that being extract which the eigenvalues are greater than 1, factor I (service quality), factor 2 (product quality), factor 3(price). The eigenvaluesrelated with each factor that represent the variance explained by specific linear element and SPSS alsoshows the eigenvalue in percentage of variance explained (Field, 2005). The first factors explain largevalue of variances while the following factors explain small value of variance and descending after that.We can relate from the Rotated Component Matrix a that these are the three factor that being compute.The most dominant factor was service quality factor (85.663%), following by product quality factor (2.081%), and price factor (1.885) of the variance explained. It was 53.461% of the total variance explained by the value.

ii) Multiple regression analysis

Table 4

Model Summary ^{b}

Model	R	R Square	Adjusted R Square	R. Error of theEstimate
1	.959^a	.919	.918	.31249

a. Predictors: (Constant), Promotion and Discount, Service Quality, Price, Product Quality

b. Dependent Variable: Consumer satisfaction on purchasing fresh agriculture products on buyer e-commerce

R-value represents the correlation between the predicted values and the observed values. It is a measurethat qualifies the strength of the linear relationship between three variables. In this case, the value is 0.959, which is good because it closes to 1. Value that is near to 1 shows linear relationship exist.

R-square is a statistical measure that represents the proportion of the variance for dependent variable that explained by an independent variable. R-square values range from 0 – 1 or representing 0% to 100%. If the R2 show value of 1, that is mean dependent variable are completelyexplained by independent variables. For the table above, the value is 0.919, which is good. It shows that 91.9% of my independent variables explaining my dependent variables. Next, Adjusted R-square shows the generalization of the result. For example, the variation of the sampleresults from the population in multiple regression. It is required to have difference between R-square and Adjusted R-square minimum. In the table above, the value is 0.918, which is not far off from 0.919,so it is good.

Table 5

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	420.031	4	105.008	1075.354	<.001^b
	Residual	37.009	379	.098		
	Total	457.040	383			

a. Dependent Variable: Consumer satisfaction on purchasing fresh agriculture products onbuyer e-commerce

b. Predictors: (Constant), Promotion and Discount, Service Quality, Price, Product Quality

In most cases, a level of significance of 5% or a confidence interval of 95% is decided upon for the research. Therefore, the value of p ought to be lower than 0.05. According to the table above, it is 0.001.Therefore, the finding has significant value. When it comes to the F-ratio, it

indicates an improvement in the model's ability to forecast the variable by fitting it to the data after considering any inaccuracies that may be present in the model. For the F-ratio yield efficient model, a value greater than one is returned. The value 1075.354, which can be found in the table that was just presented, represents the model that best fits the data.

Table 6
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std.Error	Beta		
1	(Constant)	.116	.059		1.956	.051
	Service Quality	.203	.045	.199	4.523	<.001
	Product Quality	.091	.054	.089	1.669	.096
	Price	.079	.043	.077	1.814	.070
	Promotion and Discount	.626	.052	.614	12.024	<.001

a. Dependent Variable: Consumer satisfaction on purchasing fresh agriculture products on buyere-commerce.

There are two value is important in interpretation, which is Sig. value. The value should be below the tolerable level of significance for the study. If p-value less than 0.05, then that variable has a significant association with the outcome variable. There were four main independent variables tested for consumer satisfaction on purchasing fresh agricultural product on buyer e-commerce. In this study, service quality and time and promotion and discount were below 0.05 for 95% confidence interval. Two value was not significant which product quality and price.

The result also revealed that service quality and promotion and discount have positive and significant relationships with consumer satisfaction on purchasing fresh agriculture products on buyer e- commerce. Service quality and promotion and discount was the most highly influenced consumer satisfaction on purchasing fresh agriculture products on buyer e-commerce with standardized coefficients B 0.199, followed by reach wider consumer with coefficients 0 .614. Service quality and promotion and discount was the main crucial consumer satisfaction on purchasing fresh agriculture products on buyer e-commerce.

Conclusion and Recommendations

This research has two objectives to achieve which are to study the factors that influence consumer's satisfaction on selling fresh agriculture products in E-commerce and to determine the most influencing factor that influences consumer's satisfaction on purchasing fresh agriculture products via E-commerce. All the objectives have been achieved and the specific result on above. For the first objective, with the factor analysis, the result had shown that the price has a higher relationship in the influence consumer satisfaction on purchasing fresh agricultural product on in e-commerce. The multiple regression shows the result that product quality is the domain factor in consumer satisfaction on purchasing fresh agricultural product on in e-commerce. Beside the product quality, the price also shown the domain factor in consumer satisfaction on purchasing fresh agricultural product on e-commerce. The contributions of this research to the business especially to the sellers. The businesses have a chance to raise production sales and maintain satisfied customers by delivering consistently high-quality goods and services via e-commerce. It also offers businesses to attract the interest of online shoppers by offering products at cheaper prices that are lower than those offered in

physical stores. Moreover, the seller able to improve sales by improving the quality of agricultural products in the market to meet the required criteria that may fulfill customer's satisfaction. In addition, the government may refer to the study as a reference in order to strategies the practice of e-commerce platforms among agropreneurs in marketing their agricultural products online.

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