From Tradition to Digital Commerce: Factors Influencing Customer Satisfaction in Online Purchasing of Malaysian Traditional Halal Food

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ABSTRACT

Digital transformation has reshaped how consumers purchase and experience various products, including Malaysian traditional halal foods, such as kerepek, kuih-muih, dodol, and sambal. While online purchasing offers greater convenience and accessibility, it also presents challenges in maintaining consumer trust, perceived food quality, service reliability, price fairness, and website usability. Guided by the Expectation Confirmation Theory (ECT), this study examined the factors influencing customer satisfaction in the online purchase of Malaysian traditional halal food. Specifically, the study investigated the effects of trust, food quality, delivery service, price fairness, and website usability on customer satisfaction. The study hypothesized that trust, food quality, delivery service, price fairness, and website usability significantly influenced customer satisfaction

Keywords— Traditional Halal Food, E-Commerce, Customer Satisfaction, Expectation Confirmation Theory

INTRODUCTION

The growth of digital commerce changed the way consumers searched for information, evaluated products, communicated with sellers, and completed purchases. Food products that were traditionally purchased through physical stores, markets, or direct contact with producers became increasingly accessible through online platforms. This development also created opportunities for Malaysian traditional halal food businesses to reach consumers beyond their immediate geographical locations. Products such as kerepek, kuih-muih, dodol, and sambal were promoted and purchased through social media, marketplaces, websites, and other digital channels.

For traditional halal food businesses, online purchasing provided convenience and wider market access, but the digital environment also changed the way customers evaluated their purchase experience. In a physical setting, consumers could directly observe food products and communicate with sellers before making a purchase. In an online setting, consumers often depended on product information, seller reputation, reviews, digital payment processes, delivery arrangements, and website or platform features. Consequently, customer satisfaction could be affected by several aspects of the online purchasing experience rather than by the product price alone.

Customer satisfaction was important because satisfied consumers could be more willing to repurchase products and communicate positive experiences to others. In online food purchasing, however, satisfaction could depend on whether the product and service received matched consumers' expectations. Expectation Confirmation Theory (ECT) was used to explain satisfaction as a process involving expectations, perceived performance, confirmation or disconfirmation, and satisfaction (Oliver, 1980). The theory therefore provided a suitable basis for examining factors that shaped satisfaction after consumers had completed their online purchases.

In the context of Malaysian traditional halal food, trust was relevant because consumers had to rely on sellers and digital platforms when they could not physically inspect the product before purchase (Gębska, 2022). Food quality was also important because traditional food was expected to reach consumers in an acceptable condition and maintain the characteristics associated with the purchased product. Delivery service could affect satisfaction

through delivery reliability, timeliness, and the handling of food items. Price fairness could shape consumers' perceptions of whether the amount paid was reasonable in relation to the product and service received. Website usability could influence how easily consumers searched for information, selected products, placed orders, and completed transactions (Hutahaean et al., 2024).

Therefore, this study examined the influence of trust, food quality, delivery service, price fairness, and website usability on customer satisfaction in the online purchasing of Malaysian traditional halal food. The study specifically focused on consumers in Selangor who had experience purchasing traditional halal food online.

LITERATURE REVIEW

Expectation Confirmation Theory

Expectation Confirmation Theory (ECT) was originally developed to explain consumer satisfaction after product or service consumption. Oliver (1980) proposed that satisfaction resulted from the comparison between consumers' expectations and their perceived performance of a product or service. Bhattacherjee (2001) later applied the expectation-confirmation perspective to information systems continuance and explained that users' satisfaction and subsequent behavioural intentions were influenced by confirmation and perceived usefulness. In an online purchasing context, ECT was relevant because consumers formed expectations before making a purchase and evaluated their actual experience after receiving the product and service.

In this study, ECT was applied to the online purchasing of Malaysian traditional halal food. Trust, food quality, delivery service, price fairness, and website usability represented different aspects of the online purchasing experience that were examined to determine their influence on customer satisfaction. The theory provided a foundation for understanding how consumers evaluated their purchasing experiences after completing an online transaction.

Trust and Customer Satisfaction

Trust referred to consumers' confidence that an online seller or platform would provide the product and service as promised. Online food purchases involved a certain level of uncertainty because consumers could not physically inspect the product before making payment. Trust therefore played an important role in reducing perceived uncertainty and supporting consumers' confidence in the purchasing process. Previous e-commerce research identified trust as an important element in online transactions because consumers depended on sellers to fulfil their promises and handle transactions appropriately (David et al., 2003).

In the context of online traditional halal food purchasing, trust was particularly important because consumers relied on information provided by sellers regarding the product, quality, payment, and delivery. When consumers trusted the seller or platform, they were more likely to feel confident about the transaction and evaluate their purchasing experience positively. Therefore, this study examined whether trust significantly influenced customer satisfaction.

H1: Trust significantly influenced customer satisfaction in online purchasing of Malaysian traditional halal food.

Food Quality and Customer Satisfaction

Food quality referred to consumers' perceptions of the condition of traditional halal food purchased online. Unlike non-food products, food products could be affected by preparation, packaging, storage, and transportation. Consumers evaluated whether the food they received corresponded with their expectations in terms of freshness, taste, appearance, packaging, and overall quality.

Food quality was particularly important in online purchasing because consumers could not directly examine or taste the product before making a purchase. When the food received matched or exceeded consumers' expectations, the purchasing experience could be evaluated more positively. In contrast, poor food conditions, inappropriate packaging, or differences between the product description and the actual product could reduce

satisfaction. Therefore, this study examined whether food quality significantly influenced customer satisfaction in online traditional halal food purchasing.

H2: Food quality significantly influenced customer satisfaction in online purchasing of Malaysian traditional halal food.

Delivery Service and Customer Satisfaction

Delivery service referred to the performance of the delivery process, including delivery reliability, timeliness, the condition of the parcel upon arrival, and the ability of the service to meet the expected delivery arrangement. Delivery was an important part of online food purchasing because consumers received the product only after the order had been processed and transported.

Delays, damaged packaging, or inappropriate handling could negatively affect consumers' overall purchasing experience. In contrast, reliable and timely delivery could help fulfil consumers' expectations regarding the service received. For traditional halal food, proper handling during transportation was also important because the condition of the food upon arrival could affect consumers' perceptions of its quality (Ali et al., 2021). Therefore, this study examined whether delivery service significantly influenced customer satisfaction.

H3: Delivery service significantly influenced customer satisfaction in online purchasing of Malaysian traditional halal food.

Price Fairness and Customer Satisfaction

Price fairness referred to consumers' perceptions of whether the price paid was reasonable in relation to the product, service, and purchasing conditions. In online purchasing, consumers could compare prices between different sellers relatively easily, which allowed them to evaluate whether the price of a product was reasonable compared with available alternatives.

Price fairness could influence consumers' satisfaction when they perceived that the amount paid was appropriate for the value received (Kim & Moon, 2026). Factors such as product quality, delivery charges, packaging, and additional service costs could also affect consumers' perceptions of price fairness. When consumers perceived the price as reasonable, they could evaluate the purchasing experience more positively. Therefore, this study examined whether price fairness significantly influenced customer satisfaction.

H4: Price fairness significantly influenced customer satisfaction in online purchasing of Malaysian traditional halal food.

Website Usability and Customer Satisfaction

Website usability referred to the ease with which consumers could navigate an online purchasing platform, locate product information, understand the ordering process, and complete transactions. A usable website or online platform could make the purchasing process easier by allowing consumers to search for products, compare information, place orders, and complete payments with less difficulty (S & Pandey, 2024).

Website usability was particularly relevant to online purchasing because consumers interacted with the digital platform throughout different stages of the transaction. A complicated navigation system, unclear product information, or a difficult checkout process could increase the effort required to complete a purchase and negatively affect the overall experience. DeLone and McLean (2003) (Albarrak et al., 2024) highlighted the importance of system and information quality in information system success, while previous online shopping research also connected website-related characteristics with consumers' evaluations of online experiences. Therefore, this study examined whether website usability significantly influenced customer satisfaction.

H5: Website usability significantly influenced customer satisfaction in online purchasing of Malaysian traditional halal food.

Research Framework

The research framework for this study was developed based on Oliver's (1980) Expectation Confirmation Theory (ECT) (Sumi, 2024). According to the theory, satisfaction occurs when consumers' expectations were confirmed through their actual experience and perceived performance. In this study, five independent variables, namely trust, food quality, delivery service, price fairness, and website usability, represented important aspects of the online purchasing experience when consumers purchased Malaysian traditional halal food. These aspects were considered important because consumers relied on sellers and online platforms to provide traditional halal food that met their expectations in terms of quality, service, price, and purchasing convenience. When these aspects met consumers' expectations and resulted in favourable experiences, customer satisfaction increased.

The research framework proposed that each independent variable had a positive influence on customer satisfaction. Higher levels of trust, better food quality, efficient delivery service, fair pricing, and improved website usability were expected to contribute to higher customer satisfaction among consumers who purchased Malaysian traditional halal food online. Therefore, the framework was used to examine the influence of trust, food quality, delivery service, price fairness, and website usability on customer satisfaction among these consumers.

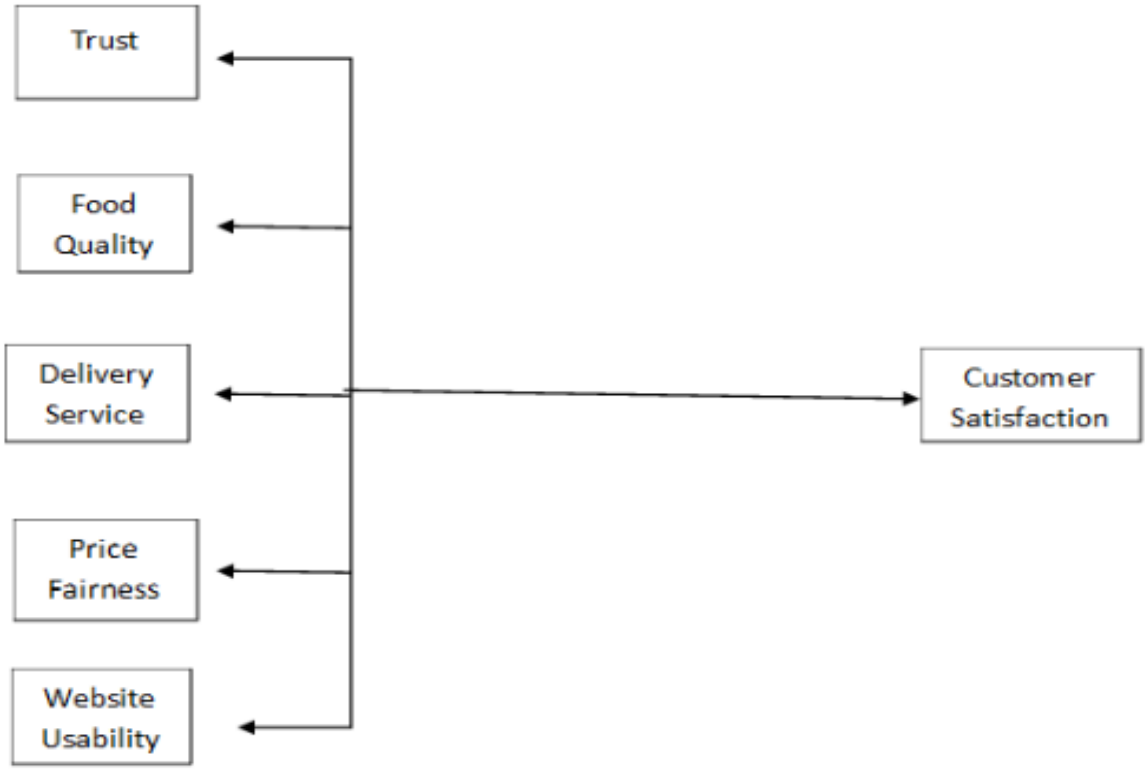

Fig. 1. Research Framework

METHODOLOGY

Research Design

A quantitative, cross-sectional research design was employed in this study. Numerical data were collected during a single period from consumers in Selangor who had experience purchasing Malaysian traditional halal food through online channels. The quantitative approach was selected because the study aimed to measure the relationships between five independent variables, namely trust, food quality, delivery service, price fairness, and website usability, and customer satisfaction using statistical analysis. The cross-sectional design allowed the data to be collected from respondents based on their existing experience with online purchases of Malaysian traditional halal food.

Population and Sampling

The target population consisted of consumers in Selangor who had experience purchasing Malaysian traditional halal food through online channels. Purposive, non-probability sampling was used because respondents were required to meet the specific criterion of having previous experience purchasing traditional halal food online. This sampling approach ensured that the respondents had relevant experience with the purchasing context examined in the study. A total of 315 valid responses were obtained and included in the final dataset. These data were subsequently used for the statistical analyses.

Research Instrument

Data were collected through a structured online questionnaire. The questionnaire was provided in both English and Malay to allow respondents to understand the questions clearly. A five-point Likert scale was used to measure the constructs, ranging from strongly disagree to strongly agree. The independent variables consisted of trust, food quality, delivery service, price fairness, and website usability, while customer satisfaction was used as the dependent variable. Trust was measured using six items, food quality using five items, delivery service using six items, price fairness using six items, website usability using six items, and customer satisfaction using six items.

Data Analysis

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) Version 28. Descriptive statistics were used to summarize the respondents' responses and determine the mean values of the study constructs. Cronbach's alpha was used to assess the internal consistency and reliability of the measurement items. Pearson correlation analysis was conducted to examine the relationships between the independent variables and customer satisfaction. Multiple regression analysis was subsequently performed to determine the individual influence of trust, food quality, delivery service, price fairness, and website usability on customer satisfaction. The statistical analyses provided the basis for evaluating the hypotheses developed in the study.

Reliability Analysis

Construct	No. of Items	Cronbach's Alpha
Trust	6	.899
Food Quality	5	.903
Delivery Service	6	.898
Price Fairness	6	.892
Website Usability	6	.893
Customer Satisfaction	6	.899

TABLE I. Reliability Analysis

All constructs had Cronbach's alpha values above .80. The results indicated high internal consistency among the measurement items used in the study.

RESULTS

Variable	Mean
Trust	3.2462
Food Quality	3.2527
Delivery Service	3.2873
Price Fairness	3.3165
Website Usability	3.3392
Customer Satisfaction	3.2984

TABLE II. Descriptive Statistics

Among the independent variables, website usability recorded the highest mean (M = 3.3392), followed by price fairness (M = 3.3165), delivery service (M = 3.2873), food quality (M = 3.2527), and trust (M = 3.2462). Customer satisfaction had a mean of 3.2984. These results indicated that the respondents generally reported moderate-to-positive evaluations across the measured constructs.

Relationship with Customer Satisfaction	**r**	**Sig.**
Trust	.625	<.001
Food Quality	.612	<.001
Delivery Service	.637	<.001
Price Fairness	.617	<.001
Website Usability	.668	<.001

TABLE III. Pearson Correlation Analysis

All five independent variables had statistically significant positive correlations with customer satisfaction at the bivariate level ($p < .001$). Website usability had the strongest correlation with customer satisfaction ($r = .668$), followed by delivery service ($r = .637$), trust ($r = .625$), price fairness ($r = .617$), and food quality ($r = .612$). These results showed that each variable was positively associated with satisfaction when examined individually.

Model Statistics	**Value**
R	.754
R^2	.568
Adjusted R^2	.561
Standard Error of Estimate	.58051
F	81.273
df	5, 309
Sig.	< .001

TABLE IV. Multiple Regression Analysis

The multiple regression model was statistically significant, $F(5, 309) = 81.273$, $p < .001$. It produced $R = .754$ and $R^2 = .568$, indicating that the five independent variables collectively explained 56.8% of the variance in customer satisfaction. The adjusted R^2 was .561, showing that the model retained 56.1% explanatory power after adjustment for the number of predictors.

Predictor	**B**	**β**	**Sig.**	**Decision**
Trust	.213	.187	.001	Supported
Food Quality	.223	.189	< .001	Supported
Delivery Service	.229	.212	< .001	Supported
Price Fairness	.033	.031	.620	Not Supported
Website Usability	.285	.272	< .001	Supported

TABLE V. Regression Results

The regression results showed that trust significantly influenced customer satisfaction ($\beta = .187$, $p = .001$). Food quality also had a significant positive influence ($\beta = .189$, $p < .001$). Delivery service significantly influenced customer satisfaction ($\beta = .212$, $p < .001$). Price fairness did not have a significant influence on customer satisfaction ($\beta = .031$, $p = .620$). Website usability had a significant positive influence and recorded the largest standardized coefficient among the predictors ($\beta = .272$, $p < .001$). Therefore, H1, H2, H3, and H5 were supported, whereas H4 was not supported.

DISCUSSION

Trust and Customer Satisfaction

The results showed that trust significantly influenced customer satisfaction, with a standardized coefficient of $\beta = .187$ and $p = .001$. The positive coefficient indicated that respondents who reported stronger trust in the online purchasing process also tended to report higher satisfaction. This finding was consistent with the nature of online transactions, where consumers depended on sellers to provide accurate information, fulfill orders, and deliver products as promised. The result also supported the relevance of Expectation Confirmation Theory (ECT) because consumers' post-purchase evaluations were partly shaped by whether the online transaction proceeded according to their expectations. When consumers trusted the seller and the purchasing process met their expectations, they were more likely to report higher satisfaction.

Food Quality and Customer Satisfaction

Food quality significantly influenced customer satisfaction, with a standardized coefficient of $\beta = .189$ and $p < .001$. This finding suggested that the actual quality of traditional halal food remained an important part of the online purchasing experience even when the transaction took place digitally. Consumers could evaluate the food after receiving the order and compare its actual condition with what they had expected from the information provided online. When the received food met their expectations in terms of quality, consumers were more likely to report higher satisfaction. The finding therefore supported the importance of maintaining consistent food quality in digital traditional halal food sales.

Delivery Service and Customer Satisfaction

Delivery service significantly influenced customer satisfaction and recorded a standardized coefficient of $\beta = .212$ and $p < .001$. The result showed that the delivery process formed an important part of the overall online purchasing experience. Traditional halal food could be affected by delays, unsuitable handling, or damage during transportation. Reliable delivery could therefore help meet consumers' expectations and contribute to a satisfactory purchasing experience. The finding suggested that the online purchase experience did not end when the order was placed, as the condition and timeliness of the delivered food also contributed to customers' overall satisfaction.

Price Fairness and Customer Satisfaction

Price fairness did not significantly influence customer satisfaction in the multiple regression model, with a standardized coefficient of $\beta = .031$ and $p = .620$, although it had a significant positive bivariate correlation with satisfaction ($r = .617$, $p < .001$). This difference suggested that the relationship between price fairness and satisfaction became non-significant when trust, food quality, delivery service, and website usability were considered simultaneously. In other words, respondents' overall satisfaction was not significantly explained by perceived price fairness alone after the other purchasing experience factors had been taken into account. The finding also demonstrated why individual correlations and multivariate effects needed to be interpreted separately. Therefore, the result did not support the hypothesis that price fairness significantly influenced customer satisfaction.

Website Usability and Customer Satisfaction

Website usability recorded the largest standardized coefficient and significantly influenced customer satisfaction, with $\beta = .272$ and $p < .001$. This result indicated that the ease of interacting with an online purchasing platform was particularly important in the studied context. Consumers needed to find information, understand product choices, place orders, and complete transactions without unnecessary difficulty (Hutahaean et al., 2024). A more usable platform could reduce effort during the purchasing process and help consumers experience a smoother online transaction. The result was also consistent with the broader information-system perspective that system-related qualities could contribute to users' evaluations of digital services (DeLone & McLean, 2003).

CONCLUSION

This study examined five factors that influenced customer satisfaction in the online purchasing of Malaysian traditional halal food. Based on 315 valid responses from consumers in Selangor, trust, food quality, delivery service, and website usability had significant positive effects on customer satisfaction. Price fairness, although positively correlated with satisfaction at the bivariate level, did not significantly influence it when all five predictors were considered together. Website usability recorded the strongest standardized effect ($\beta = .272$), followed by delivery service ($\beta = .212$), food quality ($\beta = .189$), and trust ($\beta = .187$).

The findings showed that customer satisfaction in online traditional halal food purchasing depended on several dimensions of the digital purchasing experience. The results suggested that the value of online purchasing was not determined only by the monetary price of the food. Consumers also evaluated whether they could trust the seller, whether the food received met their expectations, whether delivery was reliable, and whether the online platform was easy to use. These findings supported the application of ECT in understanding post-purchase satisfaction in a digital traditional halal food context.

The study also contributed to the understanding of how digital commerce could support the continued market presence of Malaysian traditional halal food. By maintaining product quality, reliable delivery, trustworthy transactions, and usable digital platforms, traditional food businesses could provide an online purchasing experience that better matched consumers' expectations. At the same time, the non-significant effect of price fairness showed that price alone did not explain customer satisfaction after the other factors had been considered.

Several limitations should be considered when interpreting the findings. The study used purposive non-probability sampling and focused on consumers in Selangor, so the findings represented the respondents and context studied rather than all Malaysian consumers. The cross-sectional design also captured respondents' perceptions at one point in time. Future studies could examine consumers from other Malaysian states, use larger or probability-based samples where feasible, and investigate additional factors related to online traditional halal food purchasing.

ACKNOWLEDGMENT

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