

DETERMINANTS OF CUSTOMER SATISFACTION IN ONLINE SHOPPING: THE ROLES OF PRICE AND PRODUCT QUALITY

Amirudin Mohd Zani^{1*}

Nazlin Emieza Ngah²

Roszainora Setia³

Khalid Amin Mat⁴

Nasiha Abdullah⁵

Nur Dalila Adenan⁶

¹Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: amirzani@uitm.edu.my)

²Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: nazlin5316@uitm.edu.my)

³Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: roszainora@uitm.edu.my)

⁴Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: khalid2841@uitm.edu.my)

⁵Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: nasiha@uitm.edu.my)

⁶Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, Malaysia, (E-mail: nurdalilaadenan@uitm.edu.my)

*Corresponding Author

Article history

Received date : 23-6-2026

Revised date : 24-6-2026

Accepted date : 25-7-2026

Published date : 16-8-2026

To cite this document:

Mohd Zani, A., Ngah, N. E., Setia, R., Mat, K. A., Abdullah, N., & Adenan, N. D. (2026). Determinants of customer satisfaction in online shopping: The roles of price and product quality. *Journal of Islamic, Social, Economics and Development (JISED)*, 11 (85), 913 – 925.

Abstract: *This study aims to examine the influence of price and product quality on customer satisfaction in online shopping among government employees in Kuala Terengganu. A quantitative research design was adopted, incorporating a structured questionnaire distributed via Google Forms. A total of 327 questionnaires were distributed, of which 133 valid responses were obtained and analysed using Statistical Package for the Social Sciences (SPSS). Pearson correlation and multiple regression analyses were employed to test the proposed hypotheses. The findings indicate that price has a significant and positive effect on customer satisfaction in online shopping, whereas product quality does not demonstrate a statistically significant effect. These results suggest that price plays a more dominant role in influencing customer satisfaction, particularly among value-conscious consumers such as government employees. The study provides important practical implications for online retailers by highlighting the need to implement competitive pricing strategies to enhance customer satisfaction. Although product quality remains an essential factor for maintaining consumer trust, pricing strategies appear to have a stronger impact on overall satisfaction in this context. Despite its contributions, the study is limited to government employees within a single geographical area. Future research is*

recommended to include a broader sample across different regions and sectors, as well as to incorporate additional variables such as trust, service quality, security, and delivery performance to provide a more comprehensive understanding of online shopping satisfaction.

Keywords: *Customer Satisfaction, Price, Product Quality, Perceived Value, Online Shopping.*

Introduction

E-commerce has rapidly evolved from a supplementary retail channel into a dominant component of the global marketplace, driven by continuous advancements in internet infrastructure, mobile technologies, and digital payment systems (Scotchmer, 2020). Over time, online shopping has significantly transformed consumer behaviour by offering greater convenience, wider product selection, and access to markets beyond geographical boundaries. As digital platforms become increasingly sophisticated, the focus of online retailing has shifted from purely transactional efficiency to customer-centric experiences that emphasise satisfaction, trust, and perceived value.

In this evolving environment, customer satisfaction has emerged as a crucial determinant of success in online retailing. High levels of customer satisfaction are strongly associated with repeat purchase behaviour, customer loyalty, and positive word-of-mouth, all of which are essential for sustaining competitive advantage in highly competitive online markets (Kalia et al., 2017; To et al., 2020). Conversely, dissatisfied consumers can easily switch between platforms due to low switching costs and the availability of alternative sellers, making it imperative for online retailers to understand and manage the factors influencing customer satisfaction.

Recent trends indicate a substantial increase in online shopping adoption, particularly in emerging economies such as Malaysia. The rapid growth of internet penetration and smartphone usage has accelerated digital consumption patterns, leading to higher online transaction volumes and increased consumer spending (Google, Temasek, & Bain & Company, 2020; DataReportal, 2019). These developments highlight the growing importance of identifying key determinants of customer satisfaction within online shopping environments, especially in rapidly digitalising markets.

Despite these advancements, online shopping presents several challenges that may negatively affect customer satisfaction. Consumers frequently encounter issues such as perceived price unfairness, discrepancies between online product descriptions and actual products received (product mismatch), uncertainty regarding product quality, and concerns related to value for money. These challenges arise due to the inherent limitations of online transactions, where consumers are unable to physically inspect products prior to purchase, leading to increased perceived risk (Chai et al., 2018; Tran, 2020; Merugu & Mohan, 2020). As a result, consumers rely heavily on available information, pricing cues, and prior experiences to evaluate their satisfaction with online purchases.

Although previous studies have examined a wide range of factors influencing customer satisfaction in online shopping—including service quality, trust, security, and delivery performance—the findings remain fragmented and context-dependent (Chai et al., 2018; Vasić

et al., 2019). Among these factors, price and product quality have consistently been recognised as critical determinants. Price plays a significant role due to the high level of transparency and ease of comparison across online platforms, which influences perceived fairness and value. At the same time, product quality is essential in determining whether the delivered product meets customer expectations, thereby directly affecting satisfaction.

However, the relative importance of price and product quality remains unclear, as many prior studies have analysed these variables alongside multiple factors, making it difficult to isolate their specific effects on customer satisfaction. Furthermore, limited empirical research has focused on specific consumer segments, such as government employees, whose purchasing behaviour may be shaped by income stability, budget constraints, and value-conscious decision-making. This highlights a clear gap in the literature, particularly within the Malaysian context.

Therefore, this study seeks to examine the influence of price and product quality on customer satisfaction in online shopping among government employees in Kuala Terengganu. By focusing specifically on these two variables, the study aims to provide a clearer understanding of their roles as key determinants of customer satisfaction. The findings are expected to contribute to the existing literature and offer practical insights for online retailers, policymakers, and consumers in enhancing satisfaction within the digital marketplace.

Literature Review

Given the growing importance of customer satisfaction in digital commerce, it is essential to examine how this concept is defined and understood within the context of online shopping. The following section provides an overview of customer satisfaction and its relevance in e-commerce environments.

Overview of Customer Satisfaction in Online Shopping

Customer satisfaction in online shopping has been widely recognised as a critical determinant of consumer loyalty, repurchase intention, and long-term business performance. In the context of e-commerce, customer satisfaction is multidimensional, influenced by economic, technological, and experiential factors such as price, product quality, service quality, trust, security, and delivery performance (Chai et al., 2018; Vasić et al., 2019).

Recent studies further confirm that online customer satisfaction is shaped by multiple interacting factors rather than a single determinant. For instance, Fong, Tan, and Lau (2023) found that website design, customer experience, and delivery services significantly influence customer satisfaction in Malaysia. Similarly, Utama, Sudirman, and Kurnianingrum (2024) identify system-related factors such as application design, transaction efficiency, and security as key contributors to e-commerce satisfaction. These findings highlight the complexity of customer satisfaction in online environments.

Service Quality, Trust, Security, and Delivery

Service quality and trust are widely regarded as essential relational factors in online shopping. High-quality service, including pre-purchase and post-purchase interactions, enhances customer confidence and satisfaction. Kim and Yum (2024) demonstrate that e-service quality has a strong positive effect on customer satisfaction and also strengthens customer trust and

continuous usage intention. Similarly, Chen and Zhang (2025) emphasise that effective online customer service significantly influences satisfaction and repurchase behaviour.

Security and privacy are also critical in online transactions, as customers are more likely to be satisfied when platforms provide secure payment systems and protect personal data (Tran, 2020). In addition, delivery performance plays a vital role in shaping post-purchase satisfaction. Wolok et al. (2025) highlight that delivery speed, product condition, and return processes significantly influence customer satisfaction after purchase.

Although these variables are important, many studies include them simultaneously within complex models, leading to conceptual overlap and making it difficult to isolate the specific impact of each factor (Sharma, 2025). This limits clarity regarding the most influential determinants.

Price

Price is one of the most influential determinants of customer satisfaction in online shopping, particularly due to the transparency and ease of price comparison across digital platforms. Consumers often evaluate purchases based on perceived price fairness and value for money (Kotler & Keller, 2019; Xia et al., 2010). Competitive pricing strategies, discounts, and promotions can significantly enhance customer satisfaction by increasing perceived value.

Empirical studies consistently support the importance of price in shaping satisfaction. Fiqqih (2022) found that perceived price fairness has a significant positive effect on customer satisfaction, indicating that customers are more satisfied when prices are perceived as fair. Similarly, Othman et al. (2022) report that price is a strong predictor of satisfaction in online shopping contexts, particularly among value-conscious consumers.

However, some studies suggest that the effect of price may depend on other factors such as product quality and service performance, indicating that price should be analysed in relation to other variables rather than in isolation.

Product Quality

Product quality is another key determinant of customer satisfaction, referring to the ability of a product to meet or exceed customer expectations (Garvin, 1987; Kotler & Keller, 2019). In online shopping, product quality is particularly important because consumers cannot physically inspect products before purchase and must rely on descriptions, images, and reviews.

Several studies show that product quality has a positive effect on customer satisfaction when products meet expectations in terms of functionality, reliability, and accuracy (Merugu & Mohan, 2020). However, findings remain inconsistent. For example, Fiqqih (2022) reports that product quality may not have a significant direct effect on satisfaction in certain contexts. This may occur because consumers rely on price as an indirect indicator of quality in online environments.

These mixed findings highlight the need to further investigate the role of product quality, particularly in comparison with price, as both variables may interact in influencing customer satisfaction.

Critical Comparison and Research Gap

The literature demonstrates that customer satisfaction in online shopping is influenced by a wide range of factors, including service quality, trust, security, delivery, price, and product quality. However, there is no clear consensus regarding the most dominant determinants. While some studies emphasise service-related and technological variables (Kim & Yum, 2024; Utama et al., 2024), others highlight the importance of economic and product-related factors (Othman et al., 2022; Fiqqih, 2022).

A significant limitation of prior research is the inclusion of too many variables within a single model, resulting in model complexity and conceptual overlap (Sharma, 2025). This makes it difficult to identify the independent effect of key determinants. In particular, the roles of price and product quality remain inconsistent, with some studies reporting both as significant predictors and others identifying only price as significant.

Furthermore, limited research has focused on specific consumer segments such as government employees, whose purchasing behaviour may be influenced by income stability and value-conscious decision-making. This highlights a gap in the literature, especially within the Malaysian context.

Justification of the Study Variables

Based on the identified gaps, this study focuses specifically on price and product quality as the key determinants of customer satisfaction in online shopping. While other variables such as service quality, trust, security, and delivery are acknowledged as important, they are excluded from the present model to avoid overcomplexity and ensure analytical clarity.

Price and product quality are selected because they represent fundamental components of consumer evaluation and directly influence perceived value and purchase outcomes. Moreover, previous studies report inconsistent findings regarding these variables, particularly in online contexts. By focusing on these two determinants, this study aims to provide a clearer and more focused understanding of customer satisfaction.

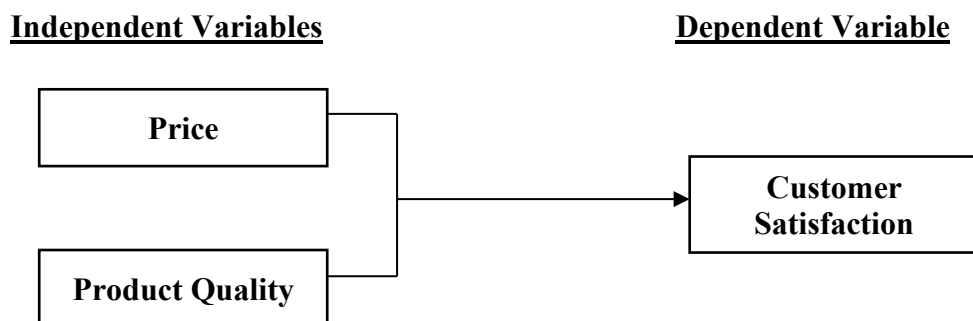


Figure 1: Conceptual Framework

Figure 1 illustrates the conceptual framework of this study, which examines the relationship between price and product quality as independent variables and customer satisfaction as the dependent variable in the context of online shopping.

The framework is developed based on existing literature, which suggests that customer satisfaction is influenced by both economic and product-related factors. Price plays a crucial role in shaping customers' perceptions of value and fairness, particularly in online environments where price comparison is highly accessible. Customers who perceive prices as fair and reasonable are more likely to experience higher levels of satisfaction.

Similarly, product quality is considered an important determinant of satisfaction, as it reflects the extent to which the purchased product meets customer expectations. In online shopping, where physical inspection is not possible, perceived product quality becomes a key factor influencing satisfaction outcomes. However, previous studies have reported mixed findings regarding its significance, highlighting the need for further investigation.

Based on this framework, the study proposes that both price and product quality have direct relationships with customer satisfaction. Accordingly, the following hypotheses are developed:
H₁: There is a positive relationship between price and customer satisfaction in online shopping.
H₂: There is a positive relationship between product quality and customer satisfaction in online shopping.

Methodology

This section outlines the methodological approach adopted in the study, including the research design, sampling procedure, data collection methods, and analytical techniques used to address the research objectives.

Research Design

This study adopts a quantitative research design using a cross-sectional survey approach to examine the relationship between price, product quality, and customer satisfaction in online shopping. This design is appropriate as it enables the analysis of relationships between variables using statistical techniques such as correlation and multiple regression.

Sampling Procedure and Respondent Criteria

The population of this study consists of 2,227 employees from six selected government agencies in Kuala Terengganu. A convenience sampling technique was employed due to time constraints and accessibility limitations. This approach is considered appropriate for the study as it enables the inclusion of respondents who are readily available while ensuring that they meet the required criteria relevant to the research objectives.

To ensure the relevance and quality of the collected data, specific criteria were established for respondent selection. Participants were required to be employed in a government agency and to have prior experience with online shopping. In addition, participation in the study was entirely voluntary. The inclusion of respondents with online shopping experience is particularly important, as it ensures that participants are capable of providing meaningful and informed responses regarding their satisfaction with online shopping.

Sample Size and Response Rate

Based on Krejcie and Morgan's (1970) sample size determination table, a minimum of 327 respondents was targeted for a population of 2,227 employees. A total of 327 questionnaires were distributed; however, only 133 valid responses were received, resulting in a response rate of 40.7%.

Despite the lower response rate, the final sample size of 133 respondents is considered adequate for statistical analysis. According to general guidelines for multiple regression analysis, a minimum sample size of $50 + 8m$ (where m represents the number of independent variables) is required (Hair et al., 2013). Given that this study includes two independent variables, the minimum required sample size is 66 respondents. Therefore, the obtained sample of 133 exceeds this requirement.

In addition, power analysis guidelines (e.g., G*Power) indicate that a sample size of approximately 100–120 is sufficient to detect medium effect sizes ($f^2 = 0.15$) at a 0.05 significance level with statistical power of 0.80 for regression models with two predictors. Thus, the sample size used in this study is statistically adequate and sufficient to produce reliable results.

Data Collection Method and Instrument

Data were collected using a structured questionnaire distributed via Google Forms. The questionnaire was developed based on established measurement scales from previous studies to ensure consistency with existing literature. It was organised into three main sections to capture relevant information aligned with the study objectives.

Section A consisted of demographic information, including variables such as gender, age, income level, and frequency of online shopping. Section B focused on the independent variables, specifically price and product quality, with each construct measured using eight items. Section C measured the dependent variable, namely customer satisfaction, also using eight items.

All questionnaire items were measured using a five-point Likert scale, ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”), to capture respondents’ perceptions and attitudes. The items were adapted from previously validated studies to ensure content validity and reliability. Minor modifications were made to suit the context of online shopping among government employees in Kuala Terengganu.

Data Analysis Technique

The collected data were analysed using Statistical Package for the Social Sciences (SPSS) software. Several statistical techniques were employed to ensure a comprehensive analysis of the data. Initially, descriptive statistics, including frequency and percentage distributions, were used to summarise respondents’ demographic profiles and provide an overall understanding of the sample characteristics.

In addition, reliability analysis using Cronbach’s alpha was conducted to assess the internal consistency of the measurement scales for each variable. Pearson correlation analysis was then performed to examine the strength and direction of the relationships between the variables. Finally, multiple regression analysis was used to determine the extent to which price and product quality influence customer satisfaction in online shopping. These analytical techniques were appropriate for testing the study’s hypotheses and examining the relationships among the variables.

Findings and Analysis

Table 1: Cronbach's Alpha Analysis

Variable	Item	Cronbach's Alpha Value
Price	8	.874
Product	8	.777
Customer Satisfaction	8	.884

The alpha value for customer satisfaction in Cronbach's Alpha is 0.884, indicating the highest reliability among all variables. Price follows with an alpha value of 0.874, making it the top independent variable. Product quality has an alpha value of 0.777, suggesting that customer satisfaction has a strong reliability with price and a moderately reliable connection with product variables.

Table 2: Frequency distribution Demographic Information

Variable	Frequency (n)	Percentage (%)
Demographic Profile		
Gender (Female)	71	53.4
Gender (Male)	62	46.6
Age 15–24 years	7	5.3
Age 25–34 years	42	31.6
Age 35–44 years	50	37.6
Age 45 and above	34	25.5
Ethnicity (Malay)	129	97.0
Marital Status (Married)	103	77.4
Monthly Income RM 2,501–RM 4,500	58	43.6
Online Shopping Frequency (Monthly)	48	36.1
Type of Product Purchased		
Women's Products & Men's Clothing	84	63.2
Home-Related Products	65	48.9
Health & Beauty Products	57	42.9
Mobile Phones & Accessories	54	40.6
Computer & Accessories	35	26.3
Women's Bags	26	19.5
Men's Bags & Wallets	16	12.0
Reasons For Online Purchasing		
Convenience	107	80.5
Lower Price	96	72.2
Ability To Compare Prices	74	55.6
Discounts & Promotions	62	46.6
Free Shipping	52	39.1

Among the respondents, 53.4% are female and 46.6% are male. The largest age group is 35 to 44 years old, representing 37.6%, while the smallest group is 15 to 24 years old at 5.3%. The majority of respondents are Malay, making up 97% and 77.4% are married. In terms of income, 43.6% earn between RM 2,501 and RM 4,500. Additionally, 36.1% of respondents engage in online shopping on a monthly basis.

The analysis of respondents preferred online purchase categories indicates that the majority of respondents (84 respondents, 63.2%) frequently purchased women's products and men's clothing. This was followed by health and beauty products, which were purchased by 57 respondents (42.9%). In addition, home-related products were purchased by 65 respondents (48.9%), while mobile phones and accessories were purchased by 54 respondents (40.6%).

Furthermore, computer and computer accessories were purchased by 35 respondents (26.3%). In terms of fashion accessories, women's bags were purchased by 26 respondents (19.5%), whereas men's bags and wallets recorded the lowest purchase frequency, with only 16 respondents (12.0%) reporting such purchases.

It should be noted that the total frequency exceeds the total number of respondents (133) because respondents were allowed to select more than one product category, reflecting their varied online shopping preferences. Therefore, no respondents are missing from the analysis.

The main reason respondents engage in online shopping is convenience, reported by 80.5% of respondents. This is followed by lower prices (72.2%), the ability to compare prices (55.6%), discounts and promotions (46.6%), and free shipping (39.1%). The reason of purchasing of lower price is 72.2% respondents, 55.6% respondents respond for price comparison and reason of discount is 46.6% respondents. free shipping 39.1% respondents

Table 3: Correlation Analysis

	Customer Satisfaction	Price	Product Quality
Customer Satisfaction	1		
Price	.586**	1	
Product Quality	.542**	.759	1

** . Correlation is significant at the 0.01 level (two-tailed).

Next, correlation analysis was conducted between all the variables. Table 3 depicts the correlation matrix between Price, Product Quality and Customer Satisfaction. The correlations reflect the inter-correlation that exists among the variables examined in this study. The results show that all variables are positively and significantly correlated with customer satisfaction at the 0.01 significance level. Specifically, price and product quality both demonstrate moderate positive relationships with customer satisfaction, indicating that increases in favourable price perception and perceived product quality are associated with higher customer satisfaction in online shopping. Although a strong correlation exists between price and product quality, the results indicate that the variables are conceptually distinct and meaningful for further analysis. Overall, the significant correlations suggest that the variables are appropriately related and suitable for subsequent regression analysis.

Table 4: Results of Hypothesis Testing Using Multiple Regression

Predictor Variable	Beta (β)	t-value	Sig. (p)	Tolerance	VIF	Decision
Price	0.344	3.166	0.002	0.219	4.312	Supported
Product Quality	0.133	1.058	0.292	0.322	2.981	Not Supported

Subsequently, multiple regression analysis was employed to assess the hypothesised relationships by regressing the independent variables (price and product quality) on the dependent variable (customer satisfaction). The analysis tested both hypotheses proposed in this study. In addition, diagnostic tests were conducted to examine potential multicollinearity among the independent variables. According to Hair et al. (2013) and Sekaran and Bougie (2010), a tolerance value below 0.10 indicates a serious multicollinearity problem. Based on the results shown in Table 4, all tolerance values exceeded the recommended threshold of 0.10, indicating that multicollinearity was not a critical concern. Furthermore, Hair et al. (2013) suggest that VIF values above 10 signal multicollinearity issues; however, the VIF values for all predictors in this study were below 10, confirming that multicollinearity did not significantly affect the regression results.

Based on the findings in Table 4, price significantly contributes to customer satisfaction ($\beta = 0.344$, $p = 0.002$) and therefore the hypothesis proposing a positive effect of price on customer satisfaction is supported. In contrast, product quality does not show a significant effect on customer satisfaction ($\beta = 0.133$, $p = 0.292$); thus, the hypothesis related to product quality is not supported. Overall, the results indicate that price is the dominant predictor influencing customer satisfaction in online shopping among government employees in Kuala Terengganu.

Discussion

This study aimed to examine the influence of price and product quality on customer satisfaction in online shopping among government employees in Kuala Terengganu. The findings from the correlation and multiple regression analyses provide important insights into how these factors shape customer satisfaction in the context of e-commerce.

The correlation analysis revealed that both price and product quality are positively and significantly associated with customer satisfaction, indicating that favourable perceptions of pricing and perceived product quality are linked to higher satisfaction levels. These results are consistent with prior empirical studies that identify price and product quality as key determinants of online customer satisfaction (Chai et al., 2018; Vasic et al., 2019). This suggests that customers evaluate their online shopping experiences holistically by considering both the monetary value they receive and the quality of products delivered.

However, when both variables were examined simultaneously using multiple regression analysis, price emerged as the only significant predictor of customer satisfaction, while product quality did not demonstrate a statistically significant independent effect. This finding suggests that price plays a more dominant role in determining customer satisfaction among the respondents, particularly when compared to product quality. The result supports previous studies indicating that online consumers are highly price-sensitive due to the ease of price comparison and availability of alternative sellers in digital marketplaces (Minderest, 2021; Lemon & Verhoef, 2016).

The strong influence of price on customer satisfaction may be attributed to the characteristics of the study sample. As government employees typically receive fixed monthly incomes, they may place greater emphasis on affordability, value for money and price transparency when making online purchasing decisions. Competitive pricing, discounts and promotions may therefore significantly enhance satisfaction by reducing perceived financial risk. This finding aligns with earlier research showing that perceived price fairness and lower prices contribute positively to satisfaction and repeat purchase intentions in online shopping environments (Chai et al., 2018; Ekasari et al., 2019).

In contrast, the non-significant effect of product quality in the regression analysis does not imply that product quality is unimportant. Instead, the finding suggests that its influence may overlap with price perceptions. The high correlation observed between price and product quality indicates that customers may associate price with quality and use price as a signal of product reliability in online settings. As a result, once price is accounted for, product quality may no longer exert a unique explanatory effect on customer satisfaction. This supports the argument that consumers often infer product quality based on price when direct product inspection is not possible.

These findings contribute to the existing literature by highlighting the context-specific dominance of price over product quality in shaping customer satisfaction among public sector employees. While previous studies have frequently identified product quality as a strong predictor of satisfaction, this study suggests that in certain consumer segments and economic contexts, pricing considerations may outweigh quality concerns. This underscores the importance of considering demographic and occupational characteristics when analysing online consumer behaviour.

From a practical perspective, the findings suggest that online retailers targeting government employees should prioritise competitive pricing strategies, transparent pricing policies and attractive promotions to enhance customer satisfaction. Although product quality remains important for maintaining trust and preventing dissatisfaction, pricing strategies appear to be more influential in determining overall satisfaction within the studied group.

In summary, this study demonstrates that while both price and product quality are associated with customer satisfaction in online shopping, price is the primary determinant of satisfaction when both factors are considered simultaneously. These results reinforce the need for online retailers and policymakers to focus on value-oriented pricing strategies while ensuring acceptable product quality standards to sustain customer satisfaction in the growing digital marketplace.

Acknowledgements

The authors wish to express their sincere gratitude to Universiti Teknologi MARA (UiTM), specifically the branches in Terengganu and Johor, Malaysia. Their invaluable support, both in terms of providing state-of-the-art facilities and financial assistance, has been instrumental in the successful completion of this research. The resources and funding provided by UiTM have significantly contributed to the advancement of our study, enabling us to achieve our research objectives. We deeply appreciate their commitment to fostering academic excellence and

research innovation, which has greatly benefited our work. Without their support, this research would not have been possible.

Conflict of Interest Statement

The authors affirm that this research was carried out without any personal gain or commercial and financial conflicts. They also declare that there are no conflicting interests with the funders, ensuring the integrity and impartiality of the study.

References

- ASQ. (2021). *Customer satisfaction*. American Society for Quality. <https://asq.org/quality-resources/customer-satisfaction>
- Bucko, J., Kakalejčík, L., & Ferencová, M. (2018). Online shopping: Factors influencing consumer purchasing behaviour. *Polish Journal of Management Studies*, 18(1), 21–34. <https://doi.org/10.17512/pjms.2018.18.1.02>
- Chai, L. T., Li, E. Y., & Yeen, A. P. (2018). Adoption of online shopping: Perceived value, trust and perceived risk. *Journal of Internet Banking and Commerce*, 23(3), 1–25.
- DataReportal. (2019). *Digital 2019: Malaysia*. <https://datareportal.com/reports/digital-2019-malaysia>
- Ekasari, N., Nurhasanah, N., & Amaliah, I. (2019). Price fairness, brand image and customer satisfaction in online shopping. *International Journal of Business and Management*, 14(9), 45–55. <https://doi.org/10.5539/ijbm.v14n9p45>
- Garvin, D. A. (1987). Competing on the eight dimensions of quality. *Harvard Business Review*, 65(6), 101–109.
- Google, Temasek, & Bain & Company. (2020). *e-Conomy SEA 2020: At full velocity—Resilient and racing ahead*. https://storage.googleapis.com/gweb-economy-sea.appspot.com/assets/pdf/e-Conomy_SEA_2020_Report.pdf
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis* (7th ed.). Pearson Education.
- Kalia, P., Kaur, N., & Singh, T. (2017). E-satisfaction and e-loyalty of consumers: A study of online retail platforms in India. *Global Business Review*, 18(6), 1573–1590. <https://doi.org/10.1177/0972150917713587>
- Kotler, P., & Keller, K. L. (2019). *Marketing management* (15th ed.). Pearson Education.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96. <https://doi.org/10.1509/jm.15.0420>
- Mbaskool. (2021). *Customer definition in marketing*. <https://www.mbaskool.com/business-concepts/marketing-and-strategy-terms/7031-customer.html>
- Merugu, S., & Mohan, K. (2020). Factors influencing customer satisfaction in online shopping. *International Journal of Scientific and Technology Research*, 9(3), 4518–4524.
- Minderest. (2021). *The importance of price in e-commerce*. <https://www.minderest.com>
- Rahman, M. S., Khan, A. H., & Noor, M. U. (2018). Customer satisfaction in online shopping: A study on purchase behaviour and attitudes. *International Journal of Information Systems and Service Sector*, 10(3), 14–28. <https://doi.org/10.4018/IJISSS.2018070102>
- Scotchmer, S. (2020). *Innovation and incentives* (2nd ed.). MIT Press.

- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill-building approach* (5th ed.). John Wiley & Sons.
- Shepard, J. (2017). Online fraud and consumer complaints in e-commerce platforms. *Journal of Consumer Protection*, 12(2), 89–102.
- To, P.-L., Liao, C., & Lin, T.-H. (2020). Shopping motivations on the internet: A study based on utilitarian and hedonic value. *Technovation*, 94–95, Article 102095. <https://doi.org/10.1016/j.technovation.2018.02.004>
- Tran, L. T. T. (2020). Perceived risk and customer satisfaction in online shopping. *Journal of Asian Business and Economic Studies*, 27(2), 123–137. <https://doi.org/10.1108/JABES-03-2019-0031>
- Vasić, N., Kilibarda, M., & Kaurin, T. (2019). The influence of online shopping determinants on customer satisfaction. *LogForum*, 15(1), 1–12. <https://doi.org/10.17270/J.LOG.2019.303>
- Xia, L., Monroe, K. B., & Cox, J. L. (2010). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, 68(4), 1–15. <https://doi.org/10.1509/jmkg.68.4.1.42733>