Factors Influencing Consumer Satisfaction in Online Shopping in Klang, Malaysia

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ARTICLE INFO	ABSTRACT
	This study explores the Factors Influencing Consumer Satisfaction in Online Shopping in Klang, Malaysia, shedding light on critical elements such as the online shopping experience, product reliability, and security concerns. With a sample of 200 respondents, the data was analyzed using SPSS to identify the key drivers of consumer satisfaction. Key Findings; 1) Online Shopping Experience: A positive online shopping experience significantly contributes to consumer satisfaction. Elements such as website usability, customer service, and ease of navigation play an important role in shaping how satisfied consumers are with their online shopping experience. 2) Product Reliability: The reliability of products (i.e., accurate descriptions, quality, and timely delivery) also emerged as a major determinant of consumer satisfaction. Consumers value consistency in product quality and delivery, and any discrepancies negatively impact their shopping experience. 3) Security Concerns: While security concerns were shown to affect satisfaction, the relationship is more complex. Consumers are particularly concerned with online payment security, but they are also influenced by the overall trustworthiness of the website, including aspects like data protection and privacy policies. Businesses in Klang looking to improve their e-commerce offerings, the findings suggest that prioritizing a seamless and positive shopping experience, ensuring the reliability of products, and addressing security concerns can significantly enhance consumer satisfaction. By focusing on these areas, companies can foster greater consumer trust and loyalty, which will contribute to sustained growth in the e-commerce sector. This research offers actionable insights for businesses aiming to meet consumer expectations and build long-term success in the competitive e-commerce market in Malaysia.

1. Introduction

Online shopping offers significant advantages over traditional in-store shopping, providing customers with greater access to information, the ability to compare products and prices easily, a wider variety of items, and the convenience of quickly locating desired products [1]. Unlike physical stores, where space limitations might restrict the display of all available items and employees may

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not have extensive knowledge of each product, online stores can provide detailed descriptions of products. Additionally, online shopping often offers better pricing due to lower operational costs, such as rent, electricity bills, and employee salaries that physical stores incur, which contribute to higher prices in brick-and-mortar locations.

However, despite these advantages, many consumers remain hesitant to make online purchases due to concerns about privacy and the security of their transactions. This is especially true in developing countries, where online shopping is still evolving and lacks robust regulatory frameworks. Concerns over online fraud and potential security breaches are significant barriers to increased adoption of e-commerce. According to Free Malaysia Today (FMT) Reporters [2], online shopping at home is generally safe, but using public networks exposes consumers to greater risks from hackers. To safeguard their data, consumers are advised to use Virtual Private Networks (VPNs) and be cautious when sharing personal information. Moreover, careful disposal of online shopping parcels such as marking phone numbers and addresses that can further prevent scams.

Customer satisfaction plays a pivotal role in the success of online shopping platforms. It is defined as the assessment of the consumer's experience with products and services over time. Satisfaction is measured by comparing the service's actual performance with the customer's expectations. A satisfied customer is more likely to make repeat purchases, which is why customer satisfaction is essential for businesses aiming to foster loyalty and increase sales [3].

This study focuses on three key factors that influence customer satisfaction in online shopping: the shopping experience, product trustworthiness, and security concerns. By examining these factors, the research seeks to understand how they impact the satisfaction levels of consumers in Klang, Malaysia. The insights gained will be valuable for businesses seeking to enhance their online platforms and for policymakers looking to improve regulations surrounding online shopping. Ultimately, the goal is to make online shopping a safer, more transparent, and satisfying experience for consumers in Klang.

This study focuses on three key factors that significantly impact how satisfied people feel when they shop online in Klang, Malaysia. These factors include the online shopping experience, encompassing the ease and enjoyment of the purchasing process, including website design and customer service; the reliability of products, which refers to the trustworthiness of the items people buy online; and security concerns, involving the measures in place to protect individuals' financial information and personal data. Understanding these aspects is crucial for businesses to improve their online shopping platforms and for researchers to gain deeper insights into the online shopping behaviour specific to Klang. Ultimately, this knowledge will enhance the overall satisfaction and confidence of consumers when making online purchases in this region.

2. Methodology

This research aims to investigate the various factors influencing consumer satisfaction in online shopping within the region of Klang, Malaysia. By achieving this, a structured research approach is proposed that quantitative methodologies. A representative sample of online shoppers in Klang, Malaysia will be surveyed using a structured questionnaire. The survey will encompass questions related to their online shopping behaviour, such as online shopping experience, reliability of product and security concerns, and their overall satisfaction level. This quantitative data will help identify patterns and correlations between different variables. By utilizing survey, this approach aims to provide valuable insights for businesses and policymakers to enhance the online shopping experience for consumers in the region.

2.1 Research Design

For this research, an online questionnaire was selected as the data collection tool due to its several advantages. Firstly, it allows for easy distribution to a large population, which is crucial for obtaining a diverse set of responses. Secondly, it provides a streamlined approach to managing and organizing the collected data, making the analysis process more efficient and accurate.

To maximize the response rate and gather more reliable data, the questionnaire will use a 5-point linked scale in Sections B and C. This scale includes five options: strongly disagree (disagree SD), (D), neutral (N), agree (A), and strongly agree (SA). The use of an odd numbered scale - is significant because, according to research by Chyung *et al.,* [4], respondents are more likely to choose the midpoint of a scale (neutral) when they are uncertain about the meaning of a particular item. By using a 5-point scale, the study aims to minimize ambiguity and provide clearer insights into respondents' opinions and perceptions. In this way, the structure of the questionnaire will help ensure a more consistent and valid set of responses, contributing to the overall reliability of the study's findings. Table 1 shows the research instrument design.

Table 1
Research instrument design

Section	Instrument	Sources
Section A		
- Demographic	8	- Researcher
Section B		
- Online Shopping Experience	5	- Ali *et al.,* [1]., Zhang et al., [15], Duan *et al.,* [6], Huang *et al.,* [10]
- Reliability of Product	5	- Bock *et al.,* [2], Gupta and Bhatnagar [9], Wang *et al.,* [22], Lu *et al.,* [30], Yan *et al.,* [24]
- Security Concerns	5	- Li [4], Chen *et al.,* [17], Wang *et al.,* [23], Kim *et al.,* [14], Zhang [28]
Section C		
- Customer Satisfaction with online shopping	5	- Li [4], Yan *et al.,* [24], Wang *et al.,* [23], Kim *et al.,* [14], Zhang [28], Bock *et al.,* [12], Gupta and Bhatnagar [9], Wang *et al.,* [22], Lu *et al.,* [30]

2.2 Plan for the Data Collection Process

The study will employ Google Forms as the platform for administering an online questionnaire. The benefits of using an online questionnaire include simplicity of distribution and proper data preservation. Because snowball sampling takes longer to reach participants, the data collecting period will be set for three weeks to provide enough time to obtain the target sample size. Furthermore, to increase the sample size, the questionnaire will be circulated via various social media platforms such as WhatsApp, Facebook, Course Networking (CN), and Gmail.

In addition, four types of analysis will be performed in the study: correlation analysis, linear regression analysis, factor analysis, and reliability analysis. According to Kafle *et al.,* [12], correlation analysis will be used to determine and establish a relationship between two variables, but it does not suggest cause and effect. The influence of independent variables on a dependent variable will be investigated using linear regression analysis. According to Yong and Pearce [26], factor analysis will be used to establish whether a factoring relationship is variable and, if so, what the relationship is between them. It can also be used to eliminate inconsequential variables to find prospective factors.

Finally, as suggested by Millar *et al.,* [13], Cronbach's alpha will be used to examine the reliability of the questionnaire responses.

3. Literature Review

A literature review is an essential part of the research process that provides the foundation for your study, ensuring that your work is informed by what has already been researched and published

3.1 Customer Satisfaction on Online Shopping

Within the dynamic and ever-changing realm of e-commerce, the experience of engaging in online purchasing has emerged as a pivotal determinant that significantly impacts the level of happiness experienced by customers. According to Zendehdel *et al.,* [14], the authors assert the importance of a good and user-friendly interface, as well as seamless navigation, in influencing consumers' overall satisfaction levels. An effectively built digital platform, distinguished by user-friendly interfaces and customized functionalities, not only streamlines the process of browsing and making purchases but also leads to heightened levels of consumer pleasure. In light of the growing dependence of consumers on digital platforms for their buying requirements, firms must comprehend the complexities associated with creating a favourable online shopping experience. This understanding is essential for organizations aiming to cultivate customer pleasure inside the virtual marketplace.

The impact of security issues on customer satisfaction in the field of e-commerce is a significant factor to consider in online transactions. According to existing research, it has been found that consumers tend to have higher levels of satisfaction when they perceive a heightened sense of security during their online interactions. Organizations that take proactive initiatives to address security concerns and implement comprehensive strategies not only inspire trust in their clientele but also foster an atmosphere that facilitates favourable purchasing encounters. The increasing prevalence of digital transactions highlights the criticality of establishing a secure online environment. Consequently, businesses must prioritize the allocation of resources toward implementing sophisticated security measures. This investment is necessary to protect consumer information and subsequently improve overall customer satisfaction [15].

In addition to the aspects of online shopping experience and security considerations, the dependability of products emerges as a crucial determinant in influencing customer happiness. According to Trevinal and Thomas [21], individuals who have a heightened perception of reliability in the products they acquire through online channels are inclined to express higher levels of happiness about their overall shopping experience. The aforementioned statement highlights the significant impact of product quality and consistency on consumer perceptions and levels of satisfaction. Business enterprises that place a high emphasis on the dependability of their products, by maintaining uniformity and surpassing client expectations, are more ideally positioned to cultivate a devoted customer following and maintain contentment in the ever-changing and cutthroat environment of the digital marketplace.

4. Results
4.1 Target Population

This research collected a total of 250 questionnaires, but 26 participants are not the target population of this survey, so they are unable to continue to fill in the survey form. Therefore, the 224

questionnaire responses from the target population that were gathered and assessed will be covered in this part by the researcher. Online surveys were used to send this questionnaire to the respondents. The outcomes and conclusions from the self-administered questionnaires will be covered. Researcher analyzed and compiled the gathered the data, SPSS Version 27 is employed. The findings of the reliability test, normality test, correlation analysis, and regression analysis will be used to describe the demographic profile of the respondents and the outcomes of descriptive research.

4.2 Pilot Study

Junyong [11] explains that pilot research is conducted on a smaller scale than the main study and serves a specific purpose in improving the quality and effectiveness of the full-scale investigation. Pilot research is essential for assessing the safety of interventions or treatments, evaluating the feasibility of recruitment, examining the randomization and blinding process, providing researchers with hands-on experience in study methodology, therapies, and medications, and offering estimates for sample size calculations. For this study, the estimated respondent sample size will be 30. Additionally, four types of analysis will be performed: correlation analysis, linear regression analysis, factor analysis, and reliability analysis. According to Kafle *et al.,* [12], correlation analysis will be used to determine and establish a relationship between two variables, though it does not suggest a cause-and-effect relationship. Linear regression analysis will be used to explore the influence of independent variables on a dependent variable. As stated by Yong and Pearce [26], factor analysis will help identify whether a variable relationship exists and, if so, to determine its nature. It can also eliminate inconsequential variables to identify potential factors. Finally, as suggested by Millar *et al.,* [13], Cronbach's Alpha will be used to assess the reliability of the questionnaire responses. Table 2 shows the pilot test results.

Table 2
Pilot test results

Questionnaire	Items	KMO's Value	Cronbach's Alpha Value
Section B Independent variables			
Online Shopping Experience	8	0.820	0.942
Reliability of Product	8	0.711	0.884
Security Concerns	4	0.666	0.825
Section C Dependent variables			
Consumer Satisfaction on Online Shopping	6	0.735	0.906

4.3 Race

Figure 1 below illustrates the religious affiliations of a total of 224 respondents who participated in the survey. The breakdown is as follows: 90 respondents (40.2%) identify as Chinese, 96 respondents (42.9%) are Malay, 35 respondents (15.6%) are Indian, and 3 respondents (1.2%) belong to other religious affiliations. This distribution offers valuable insight into the religious diversity within the respondent group. It indicates that the survey effectively captured a representative sample from a variety of religious backgrounds, thereby providing a comprehensive understanding of the perspectives and behaviours of individuals from different religious communities.
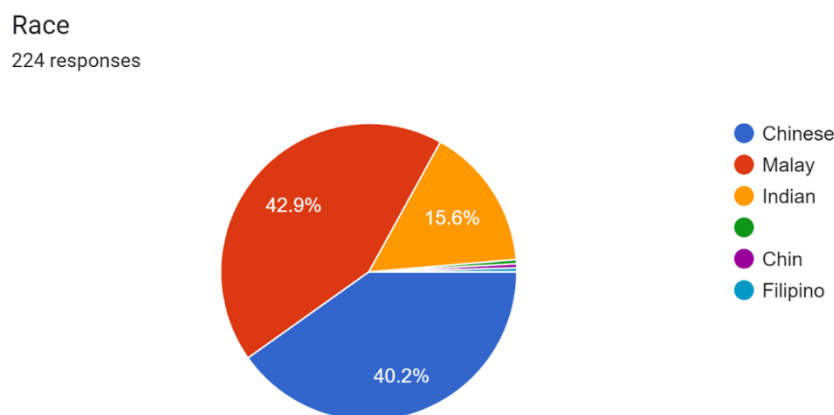
Race

224 responses

Fig. 1. Race

4.4 Overall Cronbach Alpha Value

Table 3 shows the overall result of the reliability analysis, with a Cronbach's Alpha value of 0.801. According to Table 3 (the Cronbach's Alpha interpretation table), this value falls within the "Good" range. This indicates that the Cronbach's Alpha is successfully above the threshold, signifying that the data is reliable and suitable for further analysis.

Table 3
Reliability analysis for the overall result

Cronbach's Alpha	Cronbach's Alpha based on standardized items	N of items
801	802	27

4.5 Descriptive Statistics

According to Table 4 Descriptive Statistic, we need to look into to Skewness and Kurtosis Statistic to determine whether the question is normally distributed or not. Based on the table the Skewness Statistic and Kurtosis Statistic value is in the acceptable range. The acceptable range for Skewness is between -3 and 3 which is (-3 < Skewness < 3) and the Acceptable range of Kurtosis is between -10 and 10 which is (-10 < Kurtosis < 10) [7,19]. As we can see the Skewness Statistic's highest value is 1.407 and the lowest is -0.367, for Kurtosis Statistic's highest value is 6.409 and the lowest is 1.452, which both are in the Acceptable range.

Table 4
Descriptive Statistics

		Online Shopping Experience	Reliability of Product	Security Concern	Security Concern	Security Concern
N	Statistic	225	225	225	225	225
Minimum	Statistic	4.00	4.00	4.00	4.07	
Maximum	Statistic	5.00	5.00	5.00	5.00	
Mean	Statistic	4.4314	4.4319	4.4251	4.4418	
Std. deviation	Statistic	.12796	.12924	.15357	.18329	
Skewness	Statistic	1.089	1.119	.350	-.367	
	Std. error	.124	.124	.124	.124	
Kurtois	Statistic	6.409	6.271	3.245	1.452	
	Std. error	.248	.248	.248	.248	

4.6 Correlations Analysis

Correlations analysis are showing the significant relationship among on online shopping experience, reliability of product, security concern and customer satisfaction (see Table 5).

Table 5
Correlations analysis

		Online Shopping Experience	Reliability of Product	Security Concern	Customer Satisfaction
Online Shopping Experience	Pearson Correlation	1			
	Sig. (1-tailed)	.000			
	N	225			
Reliability of Product	Pearson Correlation	.998**	1		
	Sig. (1-tailed)	.000	.000		
	N	225	225		
Security Concern	Pearson Correlation	.874**	.875**	1	
	Sig. (1-tailed)	.000	.000	.000	
	N	225	225	225	
Customer Satisfaction	Pearson Correlation	.894**	.893**	.946**	1
	Sig. (1-tailed)	.000	.000	.000	.000
	N	225	225	225	225

** Correlation is significant at the 0.01 level (1-tailed)

4.6.1 Online shopping experience and consumer satisfaction on online shopping

Based on Table 5, the "Sig (1-tailed)" value for both online shopping experience and consumer satisfaction is 0.000. Since this value is less than 0.05 (< 0.05), it can be concluded that there is a significant relationship between online shopping experience and consumer satisfaction in online shopping in Klang, Malaysia.

Moreover, referring to Table 5, we can observe a positive relationship between online shopping experience and consumer satisfaction in online shopping in Klang. The Pearson correlation value, as shown in Table 5**,** is 1, indicating a perfect positive correlation between online shopping experience and consumer satisfaction in Klang, Malaysia.

4.6.2 Reliability of product and consumer satisfaction in online shopping

Based on Table 5, the "Sig (1-tailed)" value for both the reliability of the product and consumer satisfaction in online shopping in Klang, Malaysia, is 0.000. Since this value is less than 0.05 (< 0.05), it can be concluded that there is a significant relationship between the reliability of the product and consumer satisfaction in online shopping in Klang, Malaysia.

Furthermore, referring to Table 5, we can observe a positive relationship between the reliability of the product and consumer satisfaction, with a Pearson correlation value of 0.998, as shown in Table 5. This value indicates a perfect positive correlation between product reliability and consumer satisfaction in online shopping in Klang, Malaysia.

4.6.3 Security concerns and consumer satisfaction in online shopping

Based on Table 5**,** the "Sig (1-tailed)" value for both security concerns and consumer satisfaction in online shopping in Klang, Malaysia, is 0.000, which is less than 0.05 (< 0.05). This indicates a

significant relationship between security concerns and consumer satisfaction in online shopping in Klang, Malaysia.

Furthermore, referring to Table 5, we observe a positive relationship between security concerns and consumer satisfaction, with a Pearson correlation value of 0.874, as shown in Table 5. This value suggests a strong positive correlation between security concerns and consumer satisfaction in online shopping in Klang, Malaysia.

4.6.4 Online shopping experience

Based on Table 5, the "Sig (1-tailed)" value for both online shopping experience and consumer satisfaction is 0.000, which is less than 0.05 (< 0.05). This indicates a significant relationship between online shopping experience and consumer satisfaction in online shopping in Klang, Malaysia.

Furthermore, referring to Table 5, we observe a perfect positive relationship between online shopping experience and consumer satisfaction, with a Pearson correlation value of 1. This value signifies a perfect positive correlation between the two variables in online shopping in Klang, Malaysia.

4.7 Hypothesis Testing

Hypothesis testing is a systematic procedure used to determine whether the results of a research study support a specific theory or claim about a population. It involves using sample data to evaluate a hypothesis regarding the population from which the sample is drawn. Through this process, researchers assess whether there is enough statistical evidence to reject or fail to reject the hypothesis, providing insights into the validity of the theory in question (see Table 6).

Table 6
Summary result of hypothesis testing

Hypothesis	Accepted/ Rejected	Result
H1: Online Shopping Experience significantly influences consumer satisfaction in Klang, Malaysia.	Accepted	P=.006 (P<0.05) R=1
H2: The reliability of the product significantly influences consumer satisfaction in online shopping in Klang, Malaysia.	Rejected	P=.088 (P>0.05) R=.998
H3: Security concerns significantly influence consumer satisfaction in online shopping in Klang, Malaysia.	Accepted	P=.000 (P<0.05) R=.874

4.7.1 Hypothesis testing

Hypothesis 1: Online Shopping Experience. "H1: Online Shopping Experience has a significant relationship towards consumer satisfaction in online shopping in Klang, Malaysia"

Based on the results shown in Table 6, the significance value for online shopping experience is p = 0.006, which is less than 0.05 (< 0.05). This indicates that online shopping experience has a significant relationship with consumer satisfaction in online shopping in Klang, Malaysia. Therefore, H1 is accepted, confirming that online shopping experience does affect consumer satisfaction in online shopping in Klang, Malaysia.

Hypothesis 2: Reliability of Product. "H2: Reliability of product has a significant relationship towards consumer satisfaction in online shopping in Klang, Malaysia"

Based on the results shown in Table 6**,** the significance value for the reliability of the product is p = 0.088, which exceeds 0.05 (> 0.05). This indicates that the reliability of the product does not have a significant relationship with consumer satisfaction in online shopping in Klang, Malaysia. Therefore, H2, is rejected, meaning that the reliability of the product does not affect consumer satisfaction in online shopping in Klang, Malaysia.

Hypothesis 3: Security Concerns. "H3: Security concerns have a significant relationship towards consumer satisfaction in online shopping in Klang, Malaysia"

Based on the results shown in Table 6, the significance value for security concerns is p = 0.000, which is less than 0.05 (< 0.05). This indicates that security concerns have a significant relationship with consumer satisfaction in online shopping in Klang, Malaysia. Therefore, H3 is accepted, confirming that security concerns do affect consumer satisfaction in online shopping in Klang, Malaysia.

5. Conclusion

In conclusion, this study delves into the Factors Influencing Consumer Satisfaction in Online Shopping in Klang, Malaysia, and has provided valuable insights into the dynamics of customer satisfaction in the context of online retail. The investigation focused on three pivotal factors: online shopping experience, reliability of products, and security concerns, all of which emerged as significant contributors to the overarching theme of customer satisfaction in online shopping.

The findings underscore the critical role of a seamless online shopping experience, emphasizing the importance of user-friendly interfaces, mobile optimization, and personalized features to enhance overall satisfaction. Furthermore, the reliability of products emerged as a key determinant, highlighting the necessity for transparent product information, dependable suppliers, and customer-friendly return policies to build and sustain customer trust.

Security concerns, a central aspect of online transactions, were found to significantly influence customer satisfaction. Clear communication of robust security measures, investments in advanced cybersecurity technologies, and customer education programs were identified as crucial strategies to alleviate apprehensions and foster a secure online environment.

By acknowledging these factors and their impact on customer satisfaction, businesses operating in the online retail sector in Klang can tailor their strategies to meet the unique expectations of consumers in the region. Implementing recommendations such as enhancing the online shopping experience, ensuring product reliability, and prioritizing security measures will not only contribute to immediate customer satisfaction but also establish a foundation for long-term customer loyalty.

As the online shopping landscape continues to evolve, future research can explore additional dimensions of consumer satisfaction, delve into emerging trends, and adapt strategies to align with the ever-changing preferences of online shoppers in Klang, Malaysia. Ultimately, understanding and addressing these factors will be instrumental in fostering a thriving and customer-centric online shopping environment in the region.

5.1 Limitations

During the study, the researcher faced several limitations, such as limitations in sample size and geographic scope. Initially, the time sensitivity of the deadline compels researchers to conclude their job quickly, constraining the scope of their investigation. Furthermore, the study is specifically centered on the Malaysian Klang region, considering geographical considerations. An adequate study should have a more extensive geographical sample size. Academics face constraints in doing research

beyond the borders of Klang, Malaysia, due to geographical limits. Future research could include multiple states to compare consumer satisfaction across different cultural contexts.

By implementing these strategies, future research can overcome the limitations of sample size and geographic scope, improving both the quality and generalizability of the findings. A larger, more diverse sample and the inclusion of longitudinal data will provide a more comprehensive understanding of consumer satisfaction across different regions and over time.

5.2 Recommendations

Based on the insights gained from this study on the factors influencing consumer satisfaction in online shopping in Klang, Malaysia, several recommendations can be proposed to elevate consumer satisfaction and bolster the success of online retailers in the region. Firstly, an imperative lies in the continual enhancement of the online shopping experience, encompassing improvements in website design, robust mobile optimization, and the integration of user-friendly features such as personalized recommendations to elevate overall user satisfaction. Furthermore, ensuring the reliability of products becomes paramount, necessitating the cultivation of strong partnerships with dependable suppliers, the provision of transparent product information, and the implementation of a flexible and customer-friendly return policy.

Security concerns, a cornerstone of online shopping, should be assuaged through transparent communication of robust security measures, investment in state-of-the-art cybersecurity technologies, and proactive customer education programs aimed at instilling secure online practices. Regular monitoring and improvement mechanisms are integral, entailing consistent evaluations of the website, product offerings, and security protocols, underpinned by a corporate culture that values continuous enhancement. To further enrich the customer experience, diversification of product offerings and the introduction of additional services, such as express delivery options and loyalty programs, can be explored.

Not only that, community engagement initiatives and localized marketing strategies should be employed to foster a sense of belonging and resonance with the local culture in Klang, Malaysia. By embracing these comprehensive recommendations and remaining attuned to evolving customer preferences and market dynamics, online retailers can not only meet but exceed the expectations of consumers in Klang, fostering lasting satisfaction and fortifying their competitive position in the vibrant online shopping landscape.

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