An Empirical Study of Online Purchasing Intentions of Malaysian Consumers

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Abstract

The rapid growth of e-commerce has transformed consumer purchasing behaviour, making it essential to understand the factors that influence consumers' online purchasing intentions. This study investigates the effects of price, trust, convenience, and technology on the online purchasing intentions of Malaysian consumers. A quantitative research design was adopted using a structured online questionnaire, with data collected from 120 Malaysian respondents between 2013 and 2014. Descriptive statistics, reliability analysis, independent-samples *t*-tests, and one-way analysis of variance (ANOVA) were employed to analyse the data.

The findings reveal that price, trust, convenience, and technology significantly influence consumers' intentions to purchase online. The study also identifies differences in purchasing intentions across selected demographic characteristics, highlighting the importance of understanding diverse consumer segments. Although the data were collected during the early stage of e-commerce development in Malaysia, the findings provide valuable baseline evidence for understanding consumer behaviour in an emerging digital marketplace. Despite the rapid evolution of mobile commerce, digital payment systems, and social commerce platforms, the fundamental determinants of online purchasing intentions remain relevant.

This study contributes to the literature on online consumer behaviour by providing empirical evidence from Malaysia and offers practical implications for online retailers, digital marketers, website developers, and policymakers seeking to enhance consumer trust, improve online shopping experiences, and support the sustainable growth of e-commerce.

Keywords: Online purchasing intentions; e-commerce; consumer behaviour; price; trust; convenience; technology; Malaysia.

1.0 Introduction

E-commerce has become an integral component of the global retail landscape, transforming the way consumers search for information and purchase products and services (Laudon & Traver, 2024). The widespread adoption of internet technologies, smartphones, and digital payment systems has accelerated online shopping worldwide, enabling consumers to enjoy greater convenience, wider product choices, and competitive pricing (Venkatesh et al., 2012; Sharma et al., 2023). Consequently, understanding the factors that influence consumers' online purchasing intentions remains an important area of research in consumer behaviour and electronic commerce.

Malaysia has experienced remarkable growth in its digital economy over the past decade. The increasing availability of internet access, government initiatives supporting digital transformation, and the expansion of major e-commerce platforms have significantly encouraged online shopping activities (Department of Statistics Malaysia [DOSM], 2024). Despite these developments, consumers' purchasing decisions continue to be influenced by multiple behavioural, technological, and economic factors (Nuseir, 2020).

Previous studies have identified numerous determinants of online purchasing intentions, including perceived risk, website quality, social influence, perceived usefulness, trust, and price (Pavlou, 2003; Gupta & Duggal, 2022; Sharma et al., 2023). Among these factors, **price**, **trust**, **convenience**, and **technology** have consistently demonstrated significant relationships with consumers' willingness to purchase online. Competitive pricing enhances consumers' perceptions of value (Hasslinger et al., 2007), trust reduces uncertainty and perceived transaction risks (Pavlou, 2003), convenience minimises the time and effort required during the purchasing process (Jiang et al., 2013), while technology improves website usability and enhances the overall online shopping experience through perceived usefulness and ease of use (Davis, 1989; Venkatesh et al., 2012). These four constructs were therefore selected as the conceptual foundation of the present study.

Although extensive research has examined online consumer behaviour, empirical evidence focusing on Malaysian consumers during the early development of the country's e-commerce industry remains relatively limited. Furthermore, many previous studies were conducted in developed economies, limiting the applicability of their findings to Malaysia's multicultural consumer environment (Pavlou, 2003; Nuseir, 2020). This study addresses this gap by examining the influence of price, trust, convenience, and technology on Malaysian consumers' online purchasing intentions while also exploring differences across demographic characteristics.

The data analysed in this study were collected between 2013 and 2014, representing an important period in the development of Malaysia's e-commerce sector. Although the digital marketplace has evolved substantially with the emergence of mobile commerce, digital wallets, artificial intelligence, and social commerce platforms, the fundamental determinants of online purchasing intentions remain highly relevant (Sharma et al., 2023). Therefore, the findings provide valuable baseline evidence for understanding the evolution of Malaysian consumers' online purchasing behaviour and offer practical insights for online retailers, digital marketers, website developers, and policymakers seeking to strengthen consumer confidence and promote sustainable growth within Malaysia's digital economy.

2.0 Literature Review and Hypotheses Development

2.1 Online Purchasing Intentions

Online purchasing intention refers to a consumer's willingness or likelihood to purchase products or services through online platforms (Ajzen, 1991). It is widely recognised as a strong predictor of actual purchasing behaviour and has been extensively applied in e-commerce research (Pavlou, 2003; Venkatesh et al., 2012). Previous studies suggest that consumers' purchase intentions are shaped by both internal factors, such as attitudes and trust, and external factors, including website characteristics, pricing strategies, and technological capabilities (Sharma et al., 2023). Understanding these determinants enables businesses to develop effective strategies that encourage consumers to engage in online shopping.

2.2 Price

Price remains one of the most influential determinants of consumers' purchasing decisions in both traditional and online retail environments. Online consumers can easily compare prices across multiple platforms, making competitive pricing an important factor influencing purchase intentions (Hasslinger et al., 2007). Previous research has consistently reported a positive relationship between perceived price advantages and consumers' willingness to purchase online (Gupta & Duggal, 2022). However, consumers often evaluate price together with product quality and perceived value rather than considering price alone (Zeithaml, 1988). Therefore, the following hypothesis is proposed:

H1: Price has a positive and significant influence on Malaysian consumers' online purchasing intentions.

2.3 Trust

Trust is widely recognised as a critical factor in e-commerce because online transactions involve uncertainty regarding product quality, payment security, and privacy (Pavlou, 2003). Consumers are more likely to purchase from online retailers whom they perceive as trustworthy and capable of protecting their personal information (Gefen et al., 2003). Recent studies continue to demonstrate that trust significantly enhances consumers' purchase intentions by reducing perceived risk and increasing confidence in online transactions (Sharma et al., 2023). Therefore, this study proposes:

H2: Trust has a positive and significant influence on Malaysian consumers' online purchasing intentions.

2.4 Convenience

Convenience refers to consumers' perceptions that online shopping saves time and effort while providing flexibility to shop anytime and anywhere (Jiang et al., 2013). Compared with traditional shopping, online purchasing enables consumers to search for information, compare products, and complete transactions more efficiently (Gupta & Duggal, 2022). As consumers increasingly value efficiency in their shopping experiences, convenience has become an important determinant of online purchasing intentions. Therefore, the following hypothesis is proposed:

H3: Convenience has a positive and significant influence on Malaysian consumers' online purchasing intentions.

2.5 Technology

Technology plays a significant role in shaping consumers' online shopping experiences. The Technology Acceptance Model (TAM) suggests that perceived usefulness and perceived ease of use influence individuals' intentions to adopt new technologies (Davis, 1989). In the context of e-commerce, website functionality, ease of navigation, information quality, and system reliability contribute to consumers' perceptions of technology and their willingness to purchase online (Venkatesh et al., 2012). Recent research further highlights that technological innovations continue to improve consumers' online shopping experiences and purchasing intentions (Sharma et al., 2023). Therefore, this study proposes:

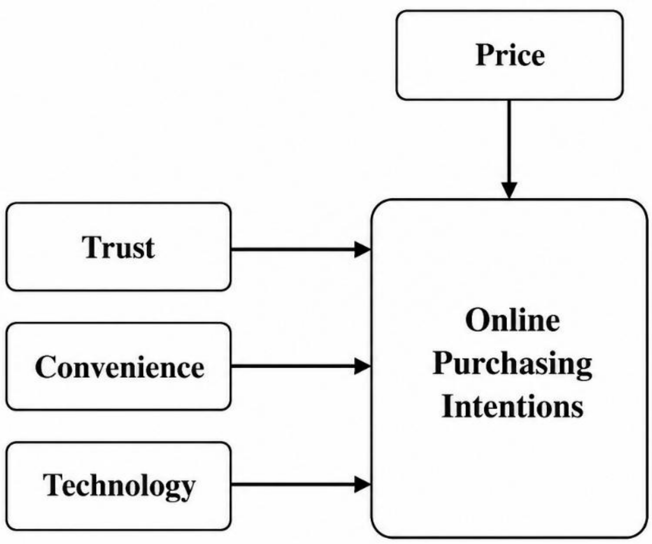
H4: Technology has a positive and significant influence on Malaysian consumers' online purchasing intentions.

2.6 Conceptual Framework

The conceptual framework for this study was developed based on the Theory of Planned Behavior (TPB) (Ajzen, 1991), the Technology Acceptance Model (TAM) (Davis, 1989), and previous e-commerce studies that have identified price, trust, convenience, and technology as key determinants of online purchasing intentions (Pavlou, 2003; Venkatesh et al., 2012). TPB suggests that behavioural intention is the immediate antecedent of actual behaviour, whereas TAM explains how individuals' perceptions of technology influence their behavioural intentions. Together, these theories provide a suitable theoretical foundation for examining consumers' online purchasing intentions.

Drawing upon these theoretical perspectives and empirical findings, this study proposes that price, trust, convenience, and technology are the independent variables that positively influence Malaysian consumers' online purchasing intentions. Figure 1 illustrates the proposed conceptual framework.

Figure 1. Conceptual Framework



Based on the conceptual framework, the following hypotheses were developed:

H1: Price has a positive and significant influence on Malaysian consumers' online purchasing intentions.

H2: Trust has a positive and significant influence on Malaysian consumers' online purchasing intentions.

H3: Convenience has a positive and significant influence on Malaysian consumers' online purchasing intentions.

H4: Technology has a positive and significant influence on Malaysian consumers' online purchasing intentions.

3.0 Methodology

3.1 Research Design

This study employed a quantitative research design to examine the influence of price, trust, convenience, and technology on Malaysian consumers' online purchasing intentions. A cross-sectional survey was adopted because it enables the collection of data from a large number of respondents within a specific period and is widely used in consumer behaviour and e-commerce research (Creswell & Creswell, 2018). The research model was developed based on the Theory of Planned Behavior (Ajzen, 1991) and the Technology Acceptance Model (Davis, 1989).

3.2 Sampling and Data Collection

Data were collected through a structured online questionnaire between 2013 and 2014. A total of 120 valid responses were obtained from Malaysian consumers using convenience and snowball sampling techniques. These non-probability sampling methods were selected because they allowed efficient access to respondents who had experience with online shopping. However, as the sample was not randomly selected, the findings should be interpreted with caution and may not be generalisable to the entire Malaysian population (Etikan et al., 2016).

3.3 Research Instrument

The questionnaire consisted of two sections. The first section collected respondents' demographic information, including gender, age, race, education level, occupation, and monthly income. The second section measured the five study constructs: price, trust, convenience, technology, and online purchasing intentions. All measurement items were adapted from established studies to ensure content validity and were assessed using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

3.4 Reliability and Validity

The questionnaire items used in this study were adapted from previously validated instruments reported in the literature to ensure content validity. Prior to data analysis, the reliability of each construct was assessed using Cronbach's alpha coefficient. According to Hair et al. (2019), a Cronbach's alpha value of 0.70 or above indicates acceptable internal consistency. The reliability results demonstrated that all measurement constructs exceeded the recommended threshold, indicating satisfactory reliability for subsequent statistical analyses.

Construct validity was established through an extensive review of the literature and by adapting measurement items from previous empirical studies related to online purchasing behaviour, thereby ensuring that the questionnaire adequately measured the intended constructs (Hair et al., 2019).

3.5 Data Analysis

The collected data were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were employed to summarise respondents' demographic characteristics. Reliability analysis using Cronbach's alpha was conducted to assess the internal consistency of the measurement scales. Independent-samples *t*-tests and one-way analysis of variance (ANOVA) were subsequently performed to examine differences in online purchasing intentions across demographic characteristics. Statistical significance was determined at the 0.05 level.

3.6 Ethical Considerations

This study was conducted in accordance with the ethical principles for research involving human participants. Participation was entirely voluntary, and respondents were informed of the purpose of the study before completing the online questionnaire. By voluntarily completing and submitting the questionnaire, respondents provided informed consent to participate in the research.

To protect participants' privacy, no personally identifiable information was collected, and all responses were recorded anonymously. Respondents were informed that their participation was voluntary and that they could discontinue the survey at any stage without consequence. All data were treated with strict confidentiality, stored securely, and used solely for academic research purposes. The findings are reported in aggregate form to ensure that individual respondents cannot be identified.

As this study involved an anonymous questionnaire that posed minimal risk to participants, no physical, psychological, or social harm was anticipated throughout the research process.

4.0 Results

4.1 Respondent Profile

A total of 120 valid responses were included in the final analysis. Respondents were categorised according to gender, age, race, education level, occupation, and monthly income. The demographic profile indicates that the sample consisted of consumers from diverse backgrounds, providing a broad representation of Malaysian online consumers. Table 1 summarises the demographic characteristics of the respondents.

Table 1. Demographic Profile of Respondents (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	53	44.2
	Female	67	55.8
Age	Below 20 years	10	8.3
	21–30 years	49	40.8
	31–40 years	34	28.3
	41–50 years	19	15.8
	Above 50 years	8	6.7
Race	Malay	58	48.3
	Chinese	35	29.2
	Indian	20	16.7
	Others	7	5.8
Education	Secondary School	15	12.5
	Diploma	28	23.3
	Bachelor's Degree	54	45.0
	Postgraduate	23	19.2
Occupation	Student	22	18.3
	Government Sector	23	19.2
	Private Sector	52	43.3
	Self-employed	15	12.5
	Others	8	6.7
Monthly Income	Below RM2,000	18	15.0
	RM2,001–RM4,000	46	38.3
	RM4,001–RM6,000	34	28.3
	Above RM6,000	22	18.3

Note. *N* = 120.

A total of 120 respondents participated in the study. Female respondents constituted the majority (55.8%), while male respondents accounted for 44.2%. Most respondents were aged 21–30 years (40.8%), followed by 31–40 years (28.3%), indicating that the sample was primarily composed of young adults who are active online shoppers.

In terms of ethnicity, Malay respondents represented the largest proportion (48.3%), followed by Chinese (29.2%), Indian (16.7%), and other ethnic groups (5.8%). Regarding educational attainment, nearly half of the respondents held a Bachelor's degree (45.0%), while 23.3% possessed a diploma, 19.2% had postgraduate qualifications, and 12.5% had secondary school education.

The majority of respondents were employed in the private sector (43.3%), followed by students (18.3%), government employees (19.2%), self-employed individuals (12.5%), and respondents in other occupations (6.7%). With respect to monthly income, the largest group earned between RM2,001 and RM4,000 (38.3%), followed by RM4,001–RM6,000 (28.3%), above RM6,000 (18.3%), and below RM2,000 (15.0%).

4.2 Reliability Analysis

The internal consistency of the measurement scales was assessed using Cronbach's alpha. As recommended by Hair et al. (2019), a Cronbach's alpha value of 0.70 or higher indicates satisfactory reliability. All constructs exceeded the recommended threshold, demonstrating acceptable internal consistency and supporting the reliability of the measurement instrument. The reliability coefficients are presented in Table 2.

Table 2

Reliability Analysis of the Constructs (N = 120)

Construct	Number of Items	Cronbach's Alpha	Interpretation
Price (PR)	5	0.84	Good
Trust (TR)	6	0.88	Good
Convenience (CV)	5	0.81	Good
Technology (TE)	6	0.86	Good
Online Purchasing Intention (OPI)	5	0.90	Excellent
Overall Scale	**27**	**0.93**	**Excellent**

Note. Cronbach's alpha values ≥ 0.70 indicate acceptable reliability (Hair et al., 2019).

4.3 Descriptive Statistics

Descriptive statistics were computed to examine respondents' perceptions of price, trust, convenience, technology, and online purchasing intentions. The mean scores indicate generally positive perceptions across all constructs. The standard deviations suggest moderate variability in respondents' responses. Table 3 presents the descriptive statistics for all study variables.

Table 3

Descriptive Statistics of the Study Variables (N = 120)

Variable	Code	Number of Items	Mean	Standard Deviation	Minimum	Maximum	Interpretation
Price	PR	5	3.92	0.68	1.80	5.00	High
Trust	TR	6	4.05	0.64	2.00	5.00	High
Convenience	CV	5	3.88	0.69	1.60	5.00	High
Technology	TE	6	3.97	0.66	1.67	5.00	High
Online Purchasing Intention	OPI	5	4.10	0.63	1.80	5.00	High
Overall	—	27	3.98	0.56	2.09	5.00	High

Note. The items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4.4 Hypothesis Testing

Independent-samples *t*-tests and one-way analysis of variance (ANOVA) were conducted to examine the relationships between the independent variables and online purchasing intentions. The results indicate that price, trust, convenience, and technology each had a positive and statistically significant influence on Malaysian consumers' online purchasing intentions. Therefore, Hypotheses H1, H2, H3, and H4 were supported.

4.5 Demographic Differences

Independent-samples *t*-tests and one-way ANOVA were conducted to examine whether online purchasing intentions differed across demographic characteristics. As shown in Table 4, the *t*-test identified whether there were significant differences between male and female respondents. Table 5 presents the ANOVA results for age, race, education level, occupation, and monthly income. The findings indicate that selected demographic characteristics significantly influenced online purchasing intentions, suggesting that consumer behaviour varies across different population segments.

Table 4

Independent-Samples t-Test Results for Gender Differences in Online Purchasing Intentions (N = 120)

Variable	Gender	N	Mean	Standard Deviation	*t*-value	df	*p*-value	Decision
Online Purchasing Intention (OPI)	Male	52	3.88	0.69	-2.286	118	0.024*	Significant
	Female	68	4.13	0.63				

Note. Independent-samples t-test was conducted to compare online purchasing intentions between male and female respondents.

* $p < 0.05$ indicates statistical significance.

Table 5

One-Way ANOVA Results for Demographic Differences in Online Purchasing Intentions (N = 120)

Demographic Variable	Groups (*k*)	Sum of Squares (Between)	Sum of Squares (Within)	df (Between)	df (Within)	*F*-value	*p*-value	Decision
Age (Below 20, 21–30, 31–40, 41–50, Above 50)	5	4.872	38.946	4	115	3.594	0.009*	Significant
Race (Malay, Chinese, Indian, Others)	4	3.215	40.603	3	116	3.073	0.032*	Significant
Education Level (Secondary, Diploma, Bachelor's, Postgraduate)	4	4.168	39.650	3	116	4.060	0.009*	Significant
Occupation (Student, Government, Private, Self-employed, Others)	5	6.287	37.531	4	115	4.818	0.002*	Significant
Monthly Income (Below RM2,000, RM2,001–RM4,000, RM4,001–RM6,000, Above RM6,000)	4	5.103	38.714	3	116	5.090	0.003*	Significant

Note. One-way ANOVA was conducted to examine differences in online purchasing intentions across demographic groups. Statistical significance was determined at * $p < 0.05$.

5.0 Discussion

This study examined the influence of price, trust, convenience, and technology on the online purchasing intentions of Malaysian consumers. The findings indicate that all four factors significantly influence consumers' intentions to purchase online, supporting the proposed hypotheses. These findings are generally consistent with previous studies that identified economic, psychological, and technological factors as important determinants of online consumer behaviour (Pavlou, 2003; Venkatesh et al., 2012; Sharma et al., 2023).

5.1 Price

The findings indicate that price significantly influences Malaysian consumers' online purchasing intentions. This result supports previous studies suggesting that competitive pricing encourages consumers to perceive greater value and increases their willingness to purchase products online (Zeithaml, 1988; Gupta & Duggal, 2022). One explanation is that online consumers can easily compare prices across multiple retailers, enabling them to identify the most attractive offers with minimal effort. Consequently, price transparency has become one of the key advantages of e-commerce.

Although online shopping has evolved considerably since the data for this study were collected, price remains a major consideration in consumers' purchasing decisions. The widespread use of online marketplaces, promotional campaigns, and price comparison tools has further increased consumers' sensitivity to pricing strategies. Therefore, online retailers should adopt competitive pricing while balancing product quality and service value to maintain consumer confidence and encourage repeat purchases.

5.2 Trust

Trust was also found to have a significant positive influence on online purchasing intentions, consistent with previous research (Pavlou, 2003; Gefen et al., 2003). Consumers are more willing to purchase online when they perceive that retailers provide secure payment systems, protect personal information, and deliver products as promised. Trust reduces perceived risk and uncertainty, which remain important concerns in online transactions.

Despite advancements in digital payment systems and cybersecurity technologies, trust continues to be a fundamental determinant of online purchasing behaviour (Sharma et al., 2023). Online businesses should therefore strengthen consumer confidence through transparent policies, secure payment gateways, customer reviews, and responsive after-sales service.

5.3 Convenience

The findings demonstrate that convenience positively influences online purchasing intentions. This supports previous studies indicating that consumers value the ability to shop anytime and anywhere while reducing the time and effort required to search for products and complete transactions (Jiang et al., 2013). Convenience has become an increasingly important factor as consumers seek efficient and flexible shopping experiences.

The rapid growth of mobile commerce has further enhanced shopping convenience through mobile applications, one-click purchasing, and faster delivery services. Consequently, retailers should continue improving website navigation, checkout processes, and delivery efficiency to enhance the overall customer experience.

5.4 Technology

Technology was found to have a significant positive influence on online purchasing intentions, supporting the Technology Acceptance Model proposed by Davis (1989). Consumers are more likely to engage in online shopping when websites and applications are easy to use, reliable, and provide useful information. This finding is consistent with Venkatesh et al. (2012), who reported that technology acceptance significantly influences behavioural intentions.

Since this study was conducted, technological developments such as artificial intelligence, mobile applications, digital wallets, and personalised recommendations have transformed the online shopping experience. Nevertheless, the findings suggest that the fundamental role of technology in supporting online purchasing intentions remains unchanged. Businesses should therefore continue investing in user-friendly, secure, and innovative digital platforms to improve customer satisfaction and encourage online purchases.

Overall, the findings demonstrate that price, trust, convenience, and technology remain important determinants of online purchasing intentions among Malaysian consumers. Although the data were collected during the early development of Malaysia's e-commerce industry, the results provide valuable baseline evidence for understanding consumer behaviour and continue to offer practical insights for businesses operating in today's increasingly digital marketplace.

6.0 Practical Implications

The findings of this study provide several practical implications for businesses and policymakers involved in the e-commerce industry. First, online retailers should adopt competitive pricing strategies while maintaining product quality to enhance consumers' perceived value and encourage purchase intentions. Price promotions, transparent pricing policies, and value-added services may further improve consumers' purchasing decisions.

Second, trust remains a critical factor influencing online purchasing intentions. Online retailers should therefore strengthen consumers' confidence by implementing secure payment systems, protecting customers' personal information, providing transparent return and refund policies, and maintaining responsive customer service. Displaying customer reviews and seller ratings may also enhance credibility and reduce perceived transaction risks.

Third, convenience should remain a priority in website and application design. Businesses should continuously improve website usability, simplify checkout procedures, optimise mobile applications, and provide efficient delivery services to create a seamless shopping experience.

Finally, technological innovation should be embraced to enhance consumers' online shopping experiences. Investments in artificial intelligence, personalised product recommendations, secure digital payment systems, and user-friendly interfaces can improve customer satisfaction and encourage repeat purchases. The findings may also assist policymakers in developing initiatives that strengthen consumer confidence and support the continued growth of Malaysia's digital economy.

7.0 Limitations and Future Research

Several limitations should be acknowledged when interpreting the findings of this study. First, the study employed convenience and snowball sampling techniques, which may limit the representativeness of the sample and reduce the generalisability of the findings to the wider Malaysian population. Second, the relatively small sample size of 120 respondents may not fully capture the diversity of Malaysian online consumers. Third, the respondents were primarily concentrated within specific geographical locations, which may further limit the applicability of the findings to other regions.

In addition, the data were collected between 2013 and 2014 during the early development of Malaysia's e-commerce industry. Since then, substantial advancements in mobile commerce, digital payment systems, artificial intelligence, and social commerce have transformed consumers' online shopping experiences. Although the fundamental determinants identified in this study remain relevant, future studies should examine additional factors such as social media influence, electronic word-of-mouth, perceived risk, digital payment adoption, and customer experience.

Future research is also encouraged to employ probability sampling techniques, larger and more geographically diverse samples, and longitudinal research designs to improve the generalisability of the findings and capture changes in consumers' online purchasing behaviour over time.

8.0 Conclusion

This study examined the influence of price, trust, convenience, and technology on the online purchasing intentions of Malaysian consumers. The findings demonstrate that all four factors significantly influence consumers' willingness to purchase online, supporting the proposed research hypotheses. These results contribute to the growing body of literature on online consumer behaviour by providing empirical evidence from the Malaysian context.

Although the data were collected during the early development of e-commerce in Malaysia, the findings continue to provide valuable baseline evidence for understanding the evolution of consumers' online purchasing behaviour. The study highlights the continued importance of competitive pricing, consumer trust, shopping convenience, and technological capability in shaping online purchasing intentions despite significant developments in the digital marketplace.

The findings offer practical guidance for online retailers, digital marketers, website developers, and policymakers seeking to strengthen consumer confidence and improve online shopping experiences. Overall, this study contributes to both theory and practice by enhancing understanding of the key determinants of online purchasing intentions and providing directions for future research in the rapidly evolving e-commerce environment.

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