

Influence of Information Quality on Restaurant Purchase Behaviour: Mediating Roles of Perceived Usefulness and Attitude

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Abstract

The rapid digitalisation of the restaurant industry has transformed how consumers make dining decisions, with online information now playing a central role in shaping trust and purchase behaviour. This study examines the relationships among information quality, perceived usefulness, attitude, and restaurant purchase behaviour, using data from 327 Malaysian consumers analysed with SmartPLS 4. Results reveal that information quality significantly influences perceived usefulness, attitude, and purchase behaviour, with both perceived usefulness and attitude mediating its effects on consumer decisions. The findings highlight the importance of reliable online communication in fostering trust, engagement, and loyalty, while also emphasising how positive restaurant purchase experiences can enhance consumer well-being and overall quality of life.

Keywords: Information quality; Perceived usefulness; Attitude; Digital consumer behaviour

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1.0 Introduction

The rapid digitalisation of the restaurant industry has fundamentally reshaped how consumers make dining decisions, with online platforms, digital menus, and customer reviews now serving as primary sources of information (Zanzaizman et al., 2023). In this increasingly competitive landscape, the quality of information, which is defined by its accuracy, timeliness, completeness, and relevance, has become a decisive factor shaping consumer trust and purchase intentions (Latip et al., 2025a). High-quality information not only enables consumers to make informed decisions but also influences their psychological responses, such as perceptions of usefulness and attitudes toward services, which are critical drivers of actual purchase behaviour (Ganguly et al., 2024).

While prior studies confirm the importance of information quality in shaping consumer evaluations, the underlying mechanisms through which this influence translates into actual purchase behaviour remain underexplored within the restaurant context (Chiu et al., 2023; Bawazir et al., 2023). Existing research often treats information quality as a direct predictor of consumer outcomes, overlooking the possibility that its effects are channelled through critical psychological processes. Perceived usefulness and attitude, in particular,

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represent essential cognitive and affective pathways that can determine whether consumers act upon the information they encounter (Li et al., 2022; Nguyen et al., 2024). Neglecting these mediators risks oversimplifying the dynamics of consumer decision-making in digitally mediated dining contexts. This gap is even more pressing in emerging markets such as Malaysia, where digital adoption is advancing rapidly, yet consumer trust in online information remains fragile and uneven (Latip et al., 2025b). In such settings, the perceived credibility and relevance of online information may not only influence immediate dining choices but also play a broader role in shaping consumer satisfaction and short-term well-being (Li et al., 2022). Addressing these overlooked relationships is therefore essential to capture the full spectrum of how digital information environments shape restaurant purchase behaviour.

Thus, this study aims to empirically test a model that examines the influence of information quality on restaurant purchase behaviour, with a focus on the mediating roles of perceived usefulness and attitude. Using SmartPLS 4 to analyse survey data from Malaysian consumers, the study makes two key contributions. Theoretically, it extends hospitality and information systems literature by demonstrating dual mediation effects in the restaurant context. Practically, it provides guidance for managers and digital strategists on designing high-quality online communication that fosters consumer trust and loyalty, ultimately leading to enhanced customer satisfaction and a better quality of life in an increasingly competitive market.

2.0 Literature Review

Digital dining decisions are increasingly shaped by the quality of online information, including menu details, hygiene assurances, prices, visuals, and consumer reviews. Information quality, defined by accuracy, relevance, timeliness, completeness, and credibility, plays a pivotal role in influencing consumer evaluations on online restaurant platforms (Latip et al., 2025a). Prior studies show that information quality enhances perceived usefulness, which in turn encourages consumer acceptance of restaurant services (Bawazir et al., 2023). This aligns with the Technology Acceptance Model (TAM), which argues that system qualities shape internal beliefs such as perceived usefulness and attitude, ultimately guiding behaviour (Davis, 1989). Thus, information quality is expected to influence perceived usefulness, attitude, and purchase behaviour directly.

From a theoretical perspective, high-quality online information improves how consumers process and evaluate messages. The Elaboration Likelihood Model (ELM) suggests that transparent and credible information strengthens both rational judgments and positive feelings toward a service (Petty & Cacioppo, 1986). In hospitality research, e-WOM and online reviews have been particularly impactful; when reviews are seen as credible and relevant, consumers report higher usefulness and develop more favourable attitudes (Fileri, 2015). Similarly, engaging menu visuals and e-WOM on social media significantly shape purchase intentions, highlighting the role of information quality in building positive attitudes (Abdullah et al., 2025). Together, these findings suggest that information quality influences both cognitive evaluations (usefulness) and affective judgments (attitude), which then shape consumer behaviour.

At the same time, evidence from e-commerce shows that consumers sometimes act directly on information cues without relying on usefulness or attitude. For example, credible and well-presented information can reduce risk and simplify decisions, prompting immediate action (Cuong, 2024). This indicates that information quality may influence restaurant purchase behaviour both directly and indirectly. Within TAM, perceived usefulness consistently predicts behavioural outcomes in digital hospitality settings, where consumers heavily rely on online information about availability, delivery, and promotions (Davis, 1989). Empirical studies confirm that when consumers find e-service platforms useful, they are more likely to proceed with bookings and purchases (Bawazir et al., 2023; Cuong, 2024). Likewise, recent Malaysian evidence shows that favourable attitudes toward digital restaurant platforms, shaped by trustworthy and engaging information, strongly encourage purchase intentions (Abdullah et al., 2025).

The roles of perceived usefulness and attitude help explain how information quality translates into purchase behaviour. First, the functional pathway (information quality → perceived usefulness → purchase behaviour) reflects a rational process, whereby consumers act when they perceive clear value in the information (Cuong, 2024). Second, the evaluative pathway (information quality → attitude → purchase behaviour) reflects an emotional process, as credible and appealing information fosters favourable feelings that motivate action (Abdullah et al., 2025). In Malaysia's restaurant industry, these dynamics are particularly relevant. Accelerated by COVID-19, digitalisation has heightened reliance on online platforms, making information quality a decisive factor in consumer choice (Chin et al., 2023; Cheng et al., 2023). Therefore, there is a need for a structured examination of how information quality shapes purchase behaviour in the restaurant context. Based on these arguments, the following hypotheses are proposed:

H1: Information quality significantly influences perceived usefulness.

H2: Information quality significantly influences attitude.

H3: Information quality significantly influences restaurant purchase behaviour.

H4: Perceived usefulness significantly influences restaurant purchase behaviour.

H5: Attitude significantly influences restaurant purchase behaviour.

H6: Perceived usefulness mediates the relationship between information quality and restaurant purchase behaviour.

H7: Attitude mediates the relationship between information quality and restaurant purchase behaviour.

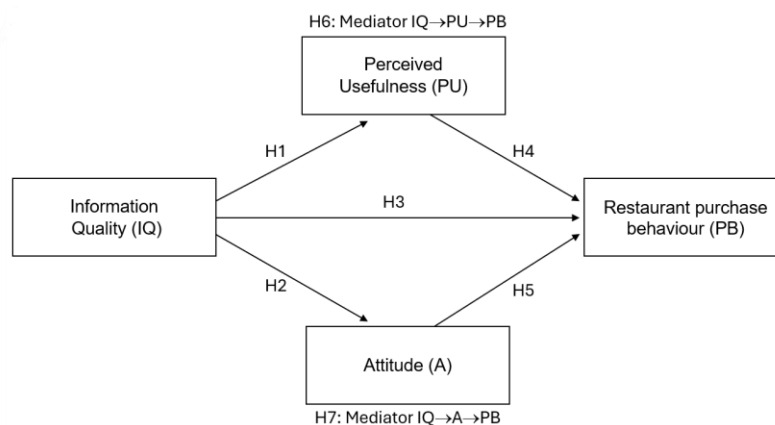


Figure 1: Study framework

3.0 Methodology

This study adopted a quantitative correlational research design and was conducted in Malaysia using an online survey. Purposive sampling was employed in a non-contrived setting to target consumers with a dine-in experience at hotel restaurants, as the study lacked an accessible sampling frame. A total of 327 valid responses from individuals aged 18 years and above were collected. This exceeded the minimum required sample size of 170, calculated using the rule of at least 10 respondents per survey item, with the study comprising 17 items (Hair et al., 2019). Data were analysed using SmartPLS 4 to assess the measurement model and test the hypothesised structural relationships.

4.0 Findings

The study involved 327 respondents with diverse demographic backgrounds. The sample was predominantly female (81.7%), with males representing 18.3%. Most respondents were young adults, with 41.0% aged 18–25 years and 37.0% aged 26–30 years, while 19.9% were 31–40 years, and only a small proportion were above 40. In terms of education, the majority held a Bachelor’s degree (64.8%), followed by diploma holders (19.3%) and those with postgraduate qualifications (11.0%). A small percentage (3.7%) had only completed high school.

4.1 Assessment of the Measurement Model

The measurement model was assessed to examine the reliability and validity of the study constructs using standard criteria: indicator reliability, internal consistency, convergent validity, and discriminant validity. Descriptive statistics (Table 1) show mean values ranging from 3.740 to 4.306, indicating general agreement with the statements, and standard deviations between 0.702 and 1.107, suggesting moderate variability. For indicator reliability, outer loadings mostly ranged from 0.680 to 0.895, exceeding the 0.70 benchmark (Hair et al., 2019). One item under Information Quality (C1) had a low loading of 0.433, but it was retained as the AVE remained above 0.50 and HTMT values were within the acceptable range (Hair et al., 2019). Internal consistency was confirmed with Composite Reliability (0.837–0.930) and Cronbach’s Alpha (0.740–0.905), both above the 0.70 threshold. Convergent validity was established with AVE values ranging from 0.577 to 0.725, exceeding the minimum requirement of 0.50. Discriminant validity was verified through the HTMT ratio, which was below the stricter cut-off of 0.85 (Hair et al., 2019). Therefore, the study instruments were confirmed to be reliable and valid.

Table 1: Reflective measurements model results

Latent Variable	Indicator	Outer Loading	Composite Reliability (CR)	Cronbach’s Alpha	Average Variance Extracted (AVE)	Mean	Std. Deviation
Attitude	A1	0.788	0.861	0.784	0.608	3.960	0.763
	A2	0.680				3.896	0.929
	A3	0.802				4.248	0.702
	A4	0.840				4.009	0.752
Purchasing behaviour	PB1	0.851	0.930	0.905	0.725	4.159	0.758
	PB2	0.883				4.174	0.752
	PB3	0.833				3.957	0.793
	PB4	0.856				4.003	0.780
	PB5	0.834				4.180	0.747
Information quality	C1	0.433	0.837	0.740	0.577	3.740	1.107
	C2	0.798				3.884	0.894
	C3	0.895				3.911	0.868
	C4	0.825				4.061	0.844
Perceived usefulness	PU1	0.713	0.894	0.842	0.679	4.131	0.823
	PU2	0.854				4.306	0.711

PU3	0.875	4.208	0.708
PU4	0.843	4.168	0.708

Table 2: Discriminant validity heterotrait–monotrait ratio (HTMT)

Constructs	A	PB	IQ	PU
A				
PB	0.715			
C	0.733	0.705		
PU	0.839	0.706	0.71	

4.2 Assessment of the Structural Model

Accordingly, the structural model was evaluated to test the hypothesised relationships among latent constructs. To address multicollinearity concerns, the inner variance inflation factor (VIF) was assessed. All independent constructs recorded VIF values between 1.675 and 2.175, confirming that multicollinearity was not an issue. Hypotheses were tested using path coefficients (β), t-values, and significance levels (p-values) at a 95% confidence level, examining both direct and mediating effects of Information Quality, Attitude, and Perceived Usefulness on Consumer Purchasing Behaviour in hotel restaurants.

The first hypothesis (H1) proposed that Information Quality significantly influences Perceived Usefulness. Results confirmed a strong, positive effect ($\beta = 0.589, t = 14.445, p = 0.000$). With a t-value far above the typical threshold in social sciences, this provides robust support for H1. The second hypothesis (H2) predicted a positive relationship between Information Quality and Attitude, which was also strongly supported ($\beta = 0.582, t = 13.248, p = 0.000$).

The third hypothesis (H3) tested the direct influence of Information Quality on Purchase Behaviour. Findings revealed a significant positive effect ($\beta = 0.282, t = 4.268, p = 0.000$), thus supporting H3. Similarly, Perceived Usefulness was found to significantly influence Purchase Behaviour (H4: $\beta = 0.302, t = 5.195, p = 0.000$). The fifth hypothesis (H5) confirmed that Attitude positively affects Purchase Behaviour ($\beta = 0.230, t = 3.522, p = 0.000$).

Mediating effects were also tested. Perceived Usefulness significantly mediated the relationship between Information Quality and Purchase Behaviour (H6: $\beta = 0.178, t = 5.026, p = 0.000$). Likewise, Attitude acted as a partial mediator (H7: $\beta = 0.134, t = 3.404, p = 0.001$), further validating the indirect role of psychological constructs in shaping purchasing decisions in restaurants.

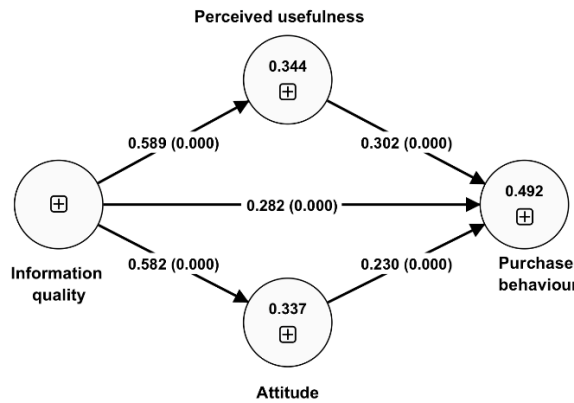


Figure 2: Hypothesis Testing Results for the Structural Model

Table 3: Path Coefficients and Hypothesis Testing Results for the Structural Model

Hypotheses	Path	β (Path Coefficient)	t-value	p-value	Result
H1	Information _quality -> Perceived usefulness	0.589	14.445	0.000	Significant
H2	Information _quality -> Attitude	0.582	13.248	0.000	Significant
H3	Information _quality -> Purchase _behaviour	0.282	4.268	0.000	Significant
H4	Perceived usefulness -> Purchase behaviour	0.302	5.195	0.000	Significant
H5	Attitude -> Purchase _behaviour	0.230	3.522	0.000	Significant
H6	Information _quality -> Perceived usefulness -> Purchase _behaviour	0.178	5.026	0.000	Significant
H7	Information _quality -> Attitude -> Purchase _behaviour	0.134	3.404	0.001	Significant

The effect size (f^2) is used to determine whether changes in a particular exogenous construct have a substantive impact on the endogenous constructs (Hair et al., 2019). According to the rule of thumb, a value of 0.02 indicates a small effect, 0.15 a medium effect, and 0.35 a large effect (Jhantasana, 2023). Table 4 shows that information quality exerts a large effect on both perceived usefulness ($f^2 = 0.53$) and attitude ($f^2 = 0.512$). However, the effect of information quality on purchase behaviour is small ($f^2 = 0.094$). Similarly, perceived usefulness ($f^2 = 0.084$) and attitude ($f^2 = 0.049$) also demonstrate small effects on purchase behaviour. This is because consumers rely on information quality mainly to shape their perceptions of usefulness and attitude rather than to directly drive purchasing actions. While high-quality information builds trust and increases perceived value, actual purchase behaviour is often influenced by external factors such as price, preferences, and social influence. Therefore, the direct effects of information quality, perceived usefulness, and attitude on purchase behaviour remain small.

In addition to the f^2 effect sizes, the explanatory power of the model was assessed using the coefficient of determination (R^2). The results indicate that Attitude had an R^2 of 0.339 (adjusted $R^2 = 0.337$), Consumer Purchasing Behaviour recorded the highest explanatory power with an R^2 of 0.497 (adjusted $R^2 = 0.492$), and Perceived Usefulness obtained an R^2 of 0.346 (adjusted $R^2 = 0.344$). The adjusted values were very close to their respective R^2 values, confirming the stability of the model and the absence of overfitting

Table 4: The effect size (f^2)

Endogenous Construct	Exogenous Construct	(f^2) Value	Effect Size
Perceived Usefulness	Information Quality	0.53	Large Effect
Attitude	Information Quality	0.512	Large Effect
Purchase Behaviour	Information Quality	0.094	Small Effect
Purchase Behaviour	Perceived Usefulness	0.084	Small Effect
Purchase Behaviour	Attitude	0.049	Small Effect
Perceived Usefulness	Information Quality	0.53	Large Effect

5.0 Discussion

The findings confirm that information quality exerts a significant influence on perceived usefulness, attitude, and purchase behaviour. This supports previous literature (Bawazir et al., 2023; Abdullah et al., 2025) demonstrating that credible, relevant, and comprehensive online information is central in shaping consumer trust and decision-making. Importantly, perceived usefulness and attitude partially mediated the relationship between information quality and purchase behaviour. This reinforces propositions from TAM (Davis, 1989) that consumers' behaviour is primarily shaped through their beliefs about utility and their evaluative attitudes.

While the direct effect of information quality on purchase behaviour was significant, its magnitude was relatively modest. This outcome reflects the complex, multifactorial nature of purchasing decisions, where factors such as price sensitivity, peer influence, or experiential expectations may override purely informational cues (Cuong, 2024). The stronger mediating role of perceived usefulness compared to attitude further suggests that consumers rely more heavily on rational, utilitarian evaluations, such as clarity of menus, transparent pricing, and hygiene assurances, than on emotional appeal when making dining choices in hotel restaurants. Divergences observed in other Malaysian studies (Chin et al., 2023; Cuong, 2024) may be explained by differences in sample demographics or platform features.

From a theoretical standpoint, this study contributes by demonstrating the dual role of cognitive (usefulness) and affective (attitude) pathways in digital dining decisions, extending behavioural frameworks to the hospitality context of emerging markets. Practically, the findings emphasize the need for restaurateurs and platform providers to invest in delivering accurate, timely, and transparent online information. Enhancing digital content, such as detailed menu descriptions, authentic customer reviews, and clear hygiene standards, not only builds trust but also strengthens perceptions of usefulness, creating a more positive dining experience and encouraging repeat patronage.

Beyond business implications, the results highlight a broader societal dimension. In an era where digital dining decisions increasingly influence everyday consumption, reliable information plays a crucial role in enhancing consumer well-being by reducing uncertainty, preventing dissatisfaction, and promoting healthier, safer, and more satisfying dining choices. For restaurants, ensuring information quality is not merely a marketing strategy but a means of enhancing guests' overall quality of life, fostering trust, comfort, and confidence in their dining experiences.

6.0 Conclusion & Recommendations

This study demonstrates that information quality is central to shaping restaurant purchase behaviour in Malaysia, operating both directly and through the mediating roles of perceived usefulness and attitude. Beyond highlighting theoretical pathways, the findings emphasise the importance of digital content that fosters trust, confidence, and positive dining decisions, particularly in hotel restaurants where quality assurance is paramount. From a managerial perspective, restaurants should prioritise delivering transparent and credible online information. Practical steps include presenting menus with complete details, maintaining clear pricing, highlighting hygiene standards, and showcasing genuine customer reviews. Such measures strengthen consumer confidence, foster loyalty, and contribute to positive dining experiences. By creating reliable and appealing digital interactions, restaurants not only enhance competitiveness but also support customer well-being and quality of life through reduced decision uncertainty and greater satisfaction.

The study is not without limitations. The purposive sampling approach may reduce generalisability, and the cross-sectional design restricts causal interpretation. Future research should employ broader sampling strategies, integrate longitudinal methods, and account for external factors such as pricing dynamics, social influence, and platform usability. Expanding comparative studies across different hospitality sectors and cultural settings could also deepen understanding of how digital information shapes consumer behaviour in evolving dining landscapes.

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Paper Contribution to Related Field of Study

This paper contributes to the related field of study, particularly within the Hospitality and Restaurant Services Environment

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