International Journal of Tourism & Hospitality in Asia Pasific (IJTHAP)
Vol. 9 No. 1, pp. 70-87, February, 2026
P-ISSN: 2685-8800/E-ISSN: 2654-7945
https://www.ejournal.aibpmjournals.com/index.php/IJTHAP

Customer Loyalty Formation in Coffee Retail: Effects of Product, Service, and Digital Quality

Yee Huei Lok[1], Lay Hong Tan[2], Ranjith P. V[3], Bhupendra Kumar[4], Wen Xuan Cheng[5], Jia Xin Chen[5*], Zhan Hang Chen[5], Zi Xian Chen[5], Pullela Sneha Latha[6], Hafis Mohammed P[3], Nida Sarfaraz[4], Daisy Mui Hung Kee[5]
[1]Universiti Utara Malaysia1, 06010 Sintok, Kedah, Malaysia
[2]National University of Sciences and Technology, NUST Campus, Islamabad, Pakistan
[3]Presidency University, Bengaluru, Karnataka, India
[4]Amity University Madhya Pradesh Gwalior, Uttar Pradesh, India
[5]Universiti Sains Malaysia, Jalan Sg Dua, 11800 Minden, Pulau Pinang, Malaysia
[6]IMS Ghaziabad, Ghaziabad - 201009, Uttar Pradesh, India
*Corresponding Email: chenjiaxin2004@gmail.com

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Lok, Y. H., Tan, L. H., P., R. V., Kumar, B., Cheng, W. X., Chen, J. X., …, & Kee, D. M. H. (2026). Customer loyalty formation in coffee retail: Effects of product, service, and digital quality. *International Journal of Tourism and Hospitality in Asia Pasific, 9*(1), 70–87.

DOI:
https://doi.org/10.32535/ijthap.v9i1.4383

Received: 15 December 2025
Accepted: 18 January 2026
Published: 20 February 2026

ABSTRACT

Growing competition in Malaysia's coffee retail industry, together with rapid digitalization, has increased the need to sustain customer loyalty. This study examines the effects of product quality, service quality, and digital infrastructure quality on customer loyalty at ZUS Coffee Malaysia. A quantitative cross-sectional survey was conducted with 101 customers, and the data were analyzed using multiple regression analysis. The findings show that service quality has the strongest and statistically significant positive effect on customer loyalty ($\beta = 0.542$, $p < 0.001$), followed by product quality ($\beta = 0.208$, $p < 0.01$). Digital infrastructure quality has a positive but non-significant effect ($\beta = 0.135$, $p > 0.05$). The model explains 41.4% of the variance in customer loyalty ($R^2 = 0.414$) and is statistically significant overall ($F = 22.864$, $p < 0.001$). The results indicate that service quality is the primary determinant of loyalty, while product quality reinforces customer commitment, and digital features play a supportive role. The study provides practical implications for strengthening loyalty through improvements in service, product, and digital performance.

Keywords: Customer Loyalty; Digital Service Quality; Product Quality; Service Quality; Specialty Coffee Retailing

INTRODUCTION

The global coffee industry has experienced substantial transformation over the past decade, driven by evolving consumer preferences, rapid urbanization, and increasing demand for specialty beverages. In Southeast Asia, particularly Malaysia, modern coffee chains have gained strong momentum among young adults who seek not only high-quality beverages but also convenience, personalization, and seamless digital accessibility. This evolution reflects broader structural changes in retail consumption patterns, where customers no longer evaluate products and services separately but expect cohesive experiences across physical and digital touchpoints. Since its establishment in early 2016, ZUS Coffee has emerged as one of the fastest-growing homegrown coffee chains in Malaysia, recognized for delivering affordable specialty beverages supported by an efficient mobile application ecosystem. Its rapid expansion illustrates how contemporary café businesses operate within service systems that integrate tangible product offerings with technology-enabled customer interactions.

As ordering behaviors continue to shift toward app-based and hybrid consumption modes, coffee chains must understand more comprehensively the determinants of customer experience and long-term loyalty. In the current digital environment, product excellence alone is insufficient to ensure sustained patronage. Customers increasingly interact with web and mobile platforms even for traditionally physical services, including beauty care and laundry. Recent research indicates that consumers evaluate brands holistically by considering taste, cleanliness, employee conduct, and the usability and reliability of digital ordering systems simultaneously (Lew et al., 2025). This multidimensional evaluation reflects broader developments in the service economy, where digitalization and experiential marketing shape customer engagement and repurchase intention. Prior studies further demonstrate that digital convenience and system quality significantly influence customer satisfaction and brand preference within food and beverage contexts. Collectively, these insights emphasize that brands such as ZUS Coffee must consistently maintain excellence in product, frontline service delivery, and digital interface performance.

Although substantial research has explored the individual relationships between product quality, service quality, and customer loyalty, limited attention has been given to examining these constructs within a single integrated explanatory framework that incorporates digital interface quality alongside traditional service elements. Many previous studies have addressed these variables independently, which constrains understanding of how they interact within rapidly expanding café chains. For example, Song et al. (2022) found that millennials increasingly rely on digital applications to support purchase decisions, underscoring the importance of coordinated digital–physical service delivery. Nevertheless, empirical studies investigating the simultaneous and relative effects of product quality, service quality, and digital interface quality on customer loyalty remain limited, particularly within Malaysia's coffee retail sector. Furthermore, the availability of competent and productive employees remains central to service quality, especially in quick-service environments where frontline performance directly influences satisfaction and loyalty outcomes.

The competitive landscape of Malaysia's coffee industry further intensifies the need for effective customer retention strategies. Studies have identified multiple experiential dimensions that shape both attitudinal and behavioral loyalty (Kee et al., 2025). Given its strong reliance on mobile application technology and standardized service operations, ZUS Coffee presents a suitable empirical context for investigating loyalty formation within digitally augmented café environments. Evidence from Nusantara settings supports the argument that digital interface quality significantly influences satisfaction and repurchase

intention, particularly among Generation Z and millennial consumers. At the same time, high product quality remains a fundamental determinant of satisfaction and loyalty within food and retail sectors (Ganatra et al., 2021; Kee et al., 2021a; Lew et al., 2025; Singh et al., 2021). These findings indicate that loyalty in modern café businesses emerges from multidimensional quality perceptions rather than isolated service attributes.

Despite these established contributions, limited research has systematically compared the relative predictive strength of product quality, service quality, and digital interface quality within a unified conceptual structure. Existing studies often emphasize either physical service encounters or digital system attributes without evaluating their combined explanatory power in shaping loyalty. The increasing integration of mobile ordering, digital payments, and online engagement mechanisms in coffee chains necessitates a more comprehensive analytical model. Identifying which quality dimension exerts the strongest influence on loyalty enhances theoretical precision and provides strategic direction for managers operating in digitally enabled retail settings.

This study is important for three primary reasons. First, by incorporating product quality, service quality, and digital interface quality into a single conceptual model, it advances theoretical discussion on multidimensional service quality and loyalty formation, addressing an underexplored domain in café research. Second, it provides practical guidance for ZUS Coffee and similar coffee chains in aligning offline service delivery with digital performance to strengthen retention. Third, it responds to recommendations from Nusantara and AIBPM project reports that highlight the necessity of integrating customer analytics with technological and service-based performance indicators. Such alignment enhances both theoretical relevance and managerial applicability.

The distinctive contribution of this research lies in its comprehensive cross-dimensional evaluation of customer experience, assessing product quality, service quality, and digital interface quality concurrently within one empirical framework. In contrast to prior research that treated these dimensions separately, this study adopts an integrated perspective to determine which construct demonstrates the strongest predictive capacity for customer loyalty. This perspective reflects contemporary consumer behavior, where preference is increasingly directed toward brands that deliver coherent, digitally supported, and service-oriented experiences. Previous research has also demonstrated that customer satisfaction and brand trust mediate the relationship between service quality and loyalty (Kee et al., 2024; Kuek et al., 2024), further reinforcing the importance of evaluating multiple quality dimensions simultaneously.

Accordingly, the objective of this study is to examine how product quality, service quality, and digital interface quality collectively influence customer loyalty toward ZUS Coffee, and to identify which factor exerts the most substantial effect. By addressing this objective, the study contributes to the development of integrated quality–loyalty models in contemporary retail environments and offers actionable managerial insights for strengthening customer retention strategies in modern café businesses.

LITERATURE REVIEW

Customer retention has undoubtedly become an absolute priority for café and beverage companies, all the more so amid growing competition and changing consumer preferences. Customer loyalty is about the customer's propensity to repeatedly choose a brand and commitment of effort and choice (Ganatra et al., 2021), which suggests repeat purchase intention and positive word-of-mouth behavior (Kee et al., 2021a; Lim et al., 2020; Pérez-Morón et al., 2022; Ruiz et al., 2020). Based on previous studies on customer loyalty, effective marketing strategies lead to higher customer loyalty by further

enhancing brand recognition and customer engagement. For example, in a study conducted on Dutch Lady consumers in Malaysia (Kee et al., 2021b). ZUS Coffee, a fast-growing Malaysian coffee chain, banks on great products and solid tech infrastructure. Consequently, an organization needs to understand how the quality of its products, services, and digital infrastructure affects loyalty.

Product Quality and Customer Loyalty

Product quality is well accepted as the key factor in customer satisfaction and repeat patronage. Taste, freshness, consistency, and presentation are among the attributes considered in food and beverage quality. Based on earlier studies, customers are willing to repurchase a product when the quality of the goods repeatedly meets their expectations (Ellitan & Suhartatik, 2023). In similar research in Southeast Asia's coffeehouse sector, it has been observed that excellent quality contributes to direct satisfaction and loyalty. This aligns with expectancy–disconfirmation theory, which posits that when actual performance exceeds expectations, it increases the likelihood of brand loyalty (Oliver, 1980).

H1: Product quality has a positive impact on customer loyalty towards ZUS Coffee Malaysia.

Service Quality and Customer Loyalty

Service quality has been widely researched in the context of the SERVQUAL, which consists of five generic dimensions, including reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988). Talent management practices have been strongly associated with service quality by enhancing employees' competencies and service delivery, particularly in service-based industries (Jimoh et al., 2020). Implementing high-quality service through Total Quality Management (TQM) practices increases the efficiency and effectiveness of operations and the consistency of service delivery in service organizations (Irfan & Kee, 2013). Service quality has increasingly been regarded as an important factor in customer loyalty, because superior service experiences enhance satisfaction and long-term relationships (Husna et al., 2020; Irfan et al., 2012; Irfan & Kee, 2013; Maisarah et al., 2020; Pérez-Morón et al., 2022). Research in Malaysian foodservice outlets demonstrated that service quality is a crucial antecedent of customer satisfaction and revisit intention (Rahman et al., 2023). Such service quality development significantly shapes customers' overall café experiences, influencing their satisfaction, perceived value, and long-term loyalty.

H2: Service quality has a positive impact on customer loyalty towards ZUS Coffee Malaysia.

Digital Infrastructure Quality and Customer Loyalty

As mobile applications, digital payments, and online ordering systems become increasingly embedded in food and beverage operations, digital infrastructure quality has emerged as a crucial component of the service experience. In contemporary coffee retail environments, customers frequently interact with mobile apps for ordering, payment, and promotional engagement, making digital system performance an integral part of overall service evaluation. In technology-driven service contexts, digital infrastructure quality has been shown to influence customer engagement and loyalty, particularly through system reliability, navigability, transaction security, and information accuracy (Kee et al., 2025; Lew et al., 2025; Teoh et al., 2025).

Drawing on DeLone and McLean's (2003) Information Systems Success Model, system quality and information quality are expected to affect user satisfaction and behavioral intentions. Within the context of coffee retail, digital infrastructure therefore complements

physical service encounters by enhancing convenience and transactional efficiency. For brands that rely heavily on mobile ordering and cashless payment systems, such as ZUS Coffee, digital infrastructure quality represents an increasingly relevant determinant of customer experience and potential loyalty formation.

H3: Digital Infrastructure quality has a positive impact on customer loyalty towards ZUS Coffee Malaysia.

Synthesis and Research Gaps

The preceding literature indicates that product quality, service quality, and digital infrastructure quality each play meaningful roles in shaping customer loyalty. Prior research has shown that corporate social responsibility (CSR) and sustainability-oriented initiatives positively influence customer trust and loyalty through enhanced corporate brand reputation (Teoh et al., 2025). Similarly, multinational brands have demonstrated that well-designed loyalty strategies contribute to long-term retention and sustained competitive advantage, as illustrated in Samsung's cases in Malaysia and Colombia (Ruiz et al., 2020). Furthermore, customer satisfaction and brand trust are consistently identified as key mechanisms through which service quality translates into stronger repurchase intention and positive word-of-mouth behavior (Kee et al., 2024).

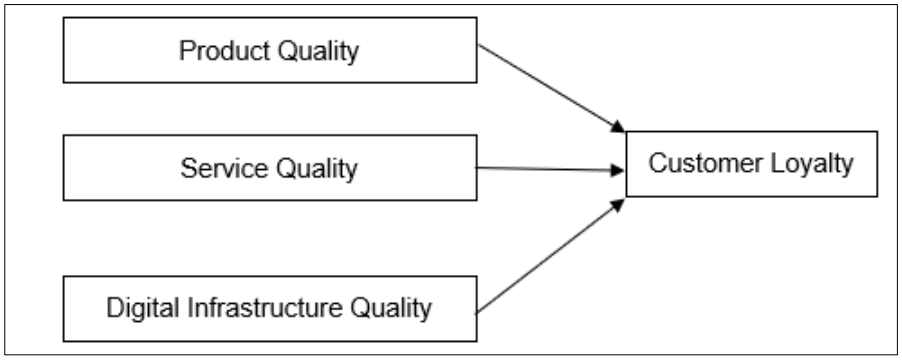
Despite these established insights, limited research has simultaneously examined product quality, service quality, and digital infrastructure quality within a unified framework in the Malaysian coffee retail context. Existing studies tend to emphasize either traditional service encounters or digital service attributes independently, rather than considering their combined and relative effects. This fragmentation constrains a comprehensive understanding of loyalty formation in hybrid service environments, where customers interact with both physical and digital touchpoints.

Moreover, variables such as customer satisfaction and ordering channel preferences remain underexplored as potential mediating or moderating mechanisms in coffee retail settings. Investigating these dimensions within the context of ZUS Coffee offers an opportunity to clarify how traditional quality drivers and digital service components jointly influence customer loyalty. Addressing this gap contributes to a more integrated perspective on loyalty formation in contemporary café businesses.

Conceptual Framework

The study framework model is depicted in Figure 1.

Figure 1. Research Framework



RESEARCH METHOD

Research Design

This study employed a quantitative cross-sectional survey design to examine the relationships between product quality, service quality, digital infrastructure quality, and customer loyalty (Creswell & Creswell, 2018). A non-experimental correlational approach was adopted, as the objective was to test hypothesized associations among naturally occurring variables without manipulation in a real-world setting (Sekaran & Bougie, 2016). Such a design is appropriate when assessing the simultaneous effects of multiple predictors on a single outcome variable within a specific population.

Data were collected at a single point in time using a structured questionnaire administered through Google Forms. Online survey administration was selected due to its efficiency, cost-effectiveness, and ability to reach a geographically dispersed consumer base (Evans & Mathur, 2018). This methodological approach enabled systematic measurement of the relative and combined effects of the three quality dimensions on customer loyalty among actual customers of ZUS Coffee Malaysia.

Participants

The target population consisted of customers of ZUS Coffee in Malaysia. A non-probability convenience sampling technique was employed due to practical constraints and the exploratory orientation of the study (Etikan et al., 2016). Although probability sampling enhances generalizability, convenience sampling is widely accepted in consumer behavior research when access to a complete sampling frame is limited.

A minimum sample size of 101 respondents was determined to ensure sufficient statistical power for multiple regression analysis and to meet recommended thresholds for multivariate research (Hair et al., 2010). A total of 101 valid responses were ultimately obtained, which is considered adequate for medium-scale survey research (Sekaran & Bougie, 2016).

Respondents represented diverse demographic backgrounds in terms of gender, age, race/ethnicity, education level, and employment status. These variables were included at the beginning of the questionnaire to describe sample characteristics and to allow potential subgroup analysis. All participants met the inclusion criterion of having prior experience with ZUS Coffee's products or services. Participation was voluntary and uncompensated.

Instrumentation

Data were collected using a self-administered online questionnaire distributed via Google Forms. The instrument comprised two sections: (1) demographic information and (2) measurement of the core constructs.

Demographic questions captured gender, age group, race/ethnicity, highest level of education, and occupation. The main section measured four constructs: Product Quality, Service Quality, Digital Infrastructure Quality, and Customer Loyalty. Each construct was operationalized using three items measured on a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), consistent with Likert's (1932) scaling approach. The measurement items were adapted from established literature to ensure content validity.

Product Quality captured respondents' perceptions of the consistency, taste, freshness, and overall performance of the coffee and food offerings, reflecting the extent to which products meet customer expectations (Kotler & Armstrong, 2018).

Service Quality assessed the performance of service encounters, including responsiveness, politeness, and reliability, drawing from the SERVQUAL framework, which conceptualizes service quality as the gap between perceived performance and customer expectations (Parasuraman et al., 1988).

Digital Infrastructure Quality measured perceptions of the quality of ZUS Coffee's digital platforms, including mobile application usability, reliability, transaction efficiency, and payment system functionality, grounded in the e-service quality literature (Parasuraman et al., 2005).

Customer Loyalty was assessed through items reflecting repurchase intention and positive word-of-mouth intention, capturing both attitudinal and behavioral loyalty dimensions (Dick & Basu, 1994; Oliver, 1999). An example item was: "I plan to purchase from ZUS Coffee in the future," representing a sustained commitment to repurchase (Oliver, 1999).

To ensure clarity and appropriateness, all items were reviewed by academic experts. A pilot test was subsequently conducted with a small group of respondents to verify comprehension and refine wording where necessary. Preliminary reliability analysis indicated that all constructs achieved Cronbach's alpha values exceeding the recommended threshold of 0.70 (Nunnally & Bernstein, 1994), suggesting satisfactory internal consistency.

Procedure

The survey link was distributed via email and social media platforms to reach potential respondents. Data collection was conducted in 2025. The introductory page of the questionnaire explained the purpose of the study, assured participants of confidentiality, and informed them of their voluntary participation rights.

Implied consent was obtained when participants proceeded beyond the introductory page, in accordance with established ethical research practices (Babbie, 2013). To prevent duplicate responses and allow possible follow-up clarification, respondents were required to provide an email address before accessing the questionnaire. While identifying information was collected, confidentiality was strictly maintained. Email addresses were stored separately from survey responses and were accessible only to the researchers, ensuring that individual responses could not be traced in the reported findings (Babbie, 2013).

The survey required approximately 5–7 minutes to complete. Responses were automatically recorded in a secure Google Forms spreadsheet. After data collection, responses were screened for completeness and quality, including checks for missing data and response patterns indicative of inattentive answering (e.g., straight-lining). All data were stored in password-protected files to ensure data security.

Data Analysis

Upon completion of data collection, responses were exported to IBM SPSS Statistics for analysis. The analytical procedures were aligned with the research objectives and hypotheses.

Data preprocessing involved removing incomplete responses and ensuring consistent coding of items so that higher scores reflected more positive evaluations. Descriptive statistics, including means, standard deviations, and frequency distributions, were

computed to summarize demographic characteristics and provide an overview of respondents' perceptions.

Internal consistency reliability was assessed using Cronbach's alpha (Cronbach, 1951). All constructs demonstrated alpha coefficients exceeding 0.70, meeting the reliability benchmark suggested by Nunnally and Bernstein (1994). Composite scores for each construct were then calculated by averaging their respective items, following standard procedures for Likert-scale indices (Hair et al., 2010). The resulting variables, product quality, service quality, digital infrastructure quality, and customer loyalty, were used in subsequent inferential analyses.

Pearson product–moment correlation analysis was first conducted to examine the direction and strength of bivariate relationships among the variables (Cohen, 1988). To test the hypotheses, multiple regression analysis was performed with customer loyalty as the dependent variable and product quality, service quality, and digital infrastructure quality as independent variables. Regression analysis is appropriate for evaluating both the individual and combined effects of multiple predictors on a continuous outcome variable (Hair et al., 2010).

Standardized beta coefficients and significance levels were reported to determine the relative contribution of each predictor while controlling for the others. Model fit was assessed using R^2, representing the proportion of variance in customer loyalty explained by the predictors. Statistical significance was evaluated at $\alpha = 0.05$, consistent with conventional social science research standards.

Finally, the results were interpreted in relation to the study hypotheses, specifically examining whether product quality, service quality, and digital infrastructure quality exhibited positive and statistically significant effects on customer loyalty.

RESULTS

Table 1. Demographic Statistics

Demographic Information	Frequency	Percentage (%)
Gender		
Male	56	55.4
Female	45	44.6
Age		
Under 18 years old	4	4.0
18 - 21 years old	32	31.7
22 - 30 years old	35	34.7
31 - 40 years old	13	12.9
41 years old and above	17	16.8
Ethnicity		
Malay	27	26.7
Chinese	41	40.6
Indian	33	32.7
Educational Level		
High school diploma or equivalent	23	22.8
Bachelor's degree	42	41.6
Master's degree	29	28.7
Doctorate degree	5	5.0
Others	2	2.0
Employment Status		
Student	34	33.7

Unemployed	3	3.0
Self-employed	28	27.7
Employed	36	35.6

Notes: N = 101.

Table 1 presents the demographic profile of the 101 respondents. In terms of gender distribution, the sample consists of 56 male respondents (55.4%) and 45 female respondents (44.6%), indicating a relatively balanced representation with a slight predominance of male participants. Regarding age, the largest proportion of respondents falls within the 22–30 years category (34.7%), followed closely by those aged 18–21 years (31.7%). Together, these groups account for more than two-thirds of the sample, suggesting that the study largely reflects the perspectives of young adults. Smaller proportions are observed among respondents aged 31–40 years (12.9%), 41 years and above (16.8%), and under 18 years old (4.0%).

In terms of ethnicity, Chinese respondents constitute the largest group (40.6%), followed by Indian (32.7%) and Malay participants (26.7%). This distribution indicates representation from Malaysia's major ethnic communities. Concerning educational attainment, most respondents hold a bachelor's degree (41.6%), while 28.7% possess a master's degree and 22.8% report a high school diploma or equivalent qualification. A smaller proportion holds a doctorate degree (5.0%) or other forms of education (2.0%). These figures suggest that the sample is generally well educated.

With respect to employment status, employed individuals represent the largest segment (35.6%), followed by students (33.7%) and self-employed respondents (27.7%), while only 3.0% are unemployed. Overall, the demographic characteristics indicate that the respondents are predominantly young, educated, and economically active individuals, aligning with the typical customer profile of contemporary urban coffee retail consumers in Malaysia.

Table 2. Mean, Standard Deviation, and Zero-Order Correlation Matrix

Variables		1	2	3	4
1	Product Quality	0.858			
2	Customer Loyalty	0.300**	0.856		
3	Service Quality	0.143	0.591***	0.864	
4	Digital Infrastructure Quality	0.113	0.234*	0.140	0.810
Mean		4.386	3.884	3.690	2.607
Standard Deviation		0.625	0.672	0.709	1.034

Notes: N = 101; * p < 0.05, ** p < 0.01, *** p < 0.001. The diagonal entries indicate Cronbach's alpha.

Table 2 shows the mean, standard deviation, and Zero-Order Correlation Matrix for all study variables. The analysis shows that product quality has a positive correlation with customer loyalty (r=0.300, p<0.01). On the other hand, service quality also has a positive correlation to product quality (r=0.143, p>0.05) and customer loyalty (r=0.591, p<0.001). Digital Infrastructure Quality shows a positive correlation with the three, which are product quality (r=0.113, p>0.05), customer loyalty (r=0.234, p<0.05), and service quality (r=0.140, p>0.05) too. All of the tested variables demonstrate the reliability, with Cronbach's alpha coefficients ranging from the lowest of 0.810 to the highest of 0.864, which exceeds the threshold of 0.7.

Table 3. Regression Analysis

Variables		Customer Loyalty
1	Product Quality	0.208**

2	Digital Infrastructure Quality	0.135
3	Service Quality	0.542***
R^2		0.414
F-value		22.864
Durbin-Watson Statistic		2.126

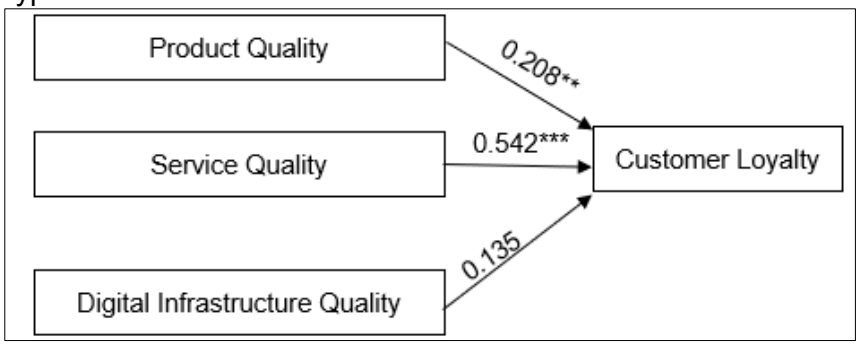
Notes: N = 101; * p < 0.05, ** p < 0.01, *** p < 0.001.

Table 3 presents the results of the multiple regression analysis examining the effects of product quality, service quality, and digital infrastructure quality on customer loyalty. The findings indicate that service quality has the strongest positive and statistically significant effect on customer loyalty (β = 0.542, p < 0.001), thereby supporting H2. Product quality also demonstrates a positive and significant relationship with customer loyalty (β = 0.208, p < 0.01), supporting H1. In contrast, although digital infrastructure quality shows a positive coefficient (β = 0.135), the relationship is not statistically significant (p > 0.05); therefore, H3 is not supported.

The model explains 41.4% of the variance in customer loyalty (R^2 = 0.414), indicating a moderate level of explanatory power. The overall regression model is statistically significant (F = 22.864, p < 0.001), confirming that the set of independent variables jointly predicts customer loyalty. Furthermore, the Durbin–Watson statistic of 2.126 suggests no serious autocorrelation issues in the residuals.

Figure 2 presents the hypothesized research model illustrating the relationships among product quality, service quality, digital infrastructure quality, and customer loyalty.

Figure 2. Hypothesized Model



DISCUSSION

This study examined the simultaneous effects of product quality, service quality, and digital infrastructure quality on customer loyalty toward ZUS Coffee Malaysia. By integrating these dimensions into a unified regression model, the research moves beyond fragmented analyses and allows a comparative interpretation of their relative influence. The findings demonstrate differentiated predictive strengths, offering both theoretical clarification and contextual validation of prior studies cited in the literature review.

Product Quality and Customer Loyalty

The empirical results confirm H1, demonstrating that product quality has a positive and statistically significant effect on customer loyalty. This finding is consistent with Ganatra et al. (2021), Kee et al. (2021a), Singh et al. (2021), and Lew et al. (2025), who collectively emphasized that tangible product attributes remain central to satisfaction and repeat purchase intention within the food and beverage industries. In particular, Lew et al. (2025) argued that consumers evaluate brands holistically, but sensory experience,

including taste consistency and freshness, remains a decisive evaluation anchor. The present study reinforces that argument within the Malaysian coffee retail context.

Furthermore, the result aligns with Hanafi et al. (2025), who found that product-related sensory dimensions significantly influence loyalty in coffee consumption settings. Coffee is an experiential product, and customers form evaluative judgments through repeated sensory confirmation. When beverage quality is stable across visits, it builds cognitive trust and reduces perceived risk, which strengthens repurchase intention.

However, the regression findings also reveal that although product quality is significant, its effect size is smaller than that of service quality. This nuance refines earlier studies that primarily positioned product quality as the dominant driver. Within hybrid café environments such as ZUS Coffee, product quality appears to function as a necessary but not sufficient condition for loyalty. It establishes performance credibility, but relational engagement determines the strength of emotional commitment.

Thus, the study extends prior research by situating product quality within a comparative hierarchy of quality dimensions rather than treating it as an isolated determinant.

Service Quality and Customer Loyalty

The strongest predictor of customer loyalty in this study is service quality, supporting H2. This result corroborates Hanafi et al. (2025), who demonstrated that functional and social service environments significantly shape customer perceptions and return intentions. Service encounters in coffee shops are inherently interpersonal; therefore, employee responsiveness, courtesy, and efficiency directly influence perceived experiential value.

The finding also complements Kee et al. (2024) and Kuek et al. (2024), who emphasized that service quality strengthens loyalty through mediating mechanisms such as satisfaction and brand trust. Although mediation was not explicitly tested in this study, the strong direct coefficient suggests that relational service performance likely reinforces these psychological processes. The result, therefore, empirically supports the theoretical pathway proposed in prior literature.

Moreover, Kee et al. (2025) highlighted that experiential dimensions shape both attitudinal and behavioral loyalty. The present findings substantiate this argument by demonstrating that interpersonal service quality exerts the largest impact on loyalty even in a digitally enabled café environment. This suggests that while digitalization enhances convenience, emotional and relational interactions remain central to long-term commitment.

The dominance of service quality also refines Song et al. (2022), who emphasized the growing reliance on digital applications among millennials. While digital dependency is increasing, this study indicates that digital reliance does not replace the relational importance of frontline service performance. Instead, digital systems facilitate transactions, whereas service encounters cultivate attachment.

Therefore, the study contributes theoretically by reaffirming the primacy of relational service quality within hybrid retail systems, where technology enhances but does not displace human-centered interaction.

Digital Infrastructure Quality and Customer Loyalty

The results do not support H3, as digital infrastructure quality does not exhibit a statistically significant direct effect on customer loyalty. This finding provides an important contextual clarification relative to prior studies.

Lew et al. (2025) and Song et al. (2022) emphasized the growing importance of digital systems in shaping consumer evaluation and purchase decisions. Similarly, evidence from Nusantara settings suggests that digital interface quality influences satisfaction and repurchase intentions. However, the present findings indicate that when product and service quality are simultaneously considered, digital infrastructure does not independently predict loyalty.

This does not contradict prior studies but rather contextualizes them. It suggests that digital infrastructure may operate indirectly, potentially through satisfaction or perceived convenience, rather than functioning as a primary loyalty driver. The positive but non-significant coefficient implies that digital systems contribute to experience efficiency but may be perceived as standardized expectations rather than differentiating attributes.

This interpretation aligns with Khairatun and Shen (2025), who emphasized the growing relevance of technology-enabled service delivery in contemporary retail. The current study extends that discussion by demonstrating that technological integration enhances operational support but does not override relational service influence.

Therefore, digital infrastructure should be conceptualized as an enabling layer within the loyalty formation process. It strengthens service delivery efficiency and supports product access, yet it does not substitute for core experiential drivers.

Integrated Interpretation

When the three dimensions are examined collectively, the findings reveal a layered structure in the formation of customer loyalty. Service quality emerges as the dominant relational driver, exerting the strongest influence on customers' commitment and repurchase intention. This suggests that interpersonal interactions, responsiveness, and overall service performance play a decisive role in transforming satisfactory transactions into enduring brand attachment. Product quality, while also significant, operates as the foundational performance assurance mechanism. Consistency in taste, freshness, and menu standards establishes credibility and reliability, forming the essential base upon which loyalty is built. Without this stable core offering, relational and technological enhancements would have limited impact. Meanwhile, digital infrastructure quality functions primarily as a complementary efficiency facilitator. Although it enhances convenience and streamlines the customer journey, it supports rather than independently determines loyalty outcomes.

This integrated interpretation contributes to the literature by empirically positioning these dimensions within a comparative framework instead of treating them as isolated determinants. By demonstrating their relative strengths within a single analytical model, the study provides a clearer theoretical structure to multidimensional quality–loyalty relationships. In doing so, it directly addresses the research gap identified in the Introduction, particularly the limited availability of unified frameworks that simultaneously assess physical and digital quality dimensions within Malaysian café settings.

Theoretical Advancement

By systematically engaging with prior studies (Ganatra et al., 2021; Kee et al., 2021a; Kee et al., 2024; Khairatun & Shen, 2025; Kuek et al., 2024; Lew et al., 2025; Hanafi et al., 2025; Singh et al., 2021; Song et al., 2022), this research advances theoretical understanding in several important ways. First, it reaffirms the enduring importance of product quality in shaping loyalty within food and beverage contexts, supporting earlier arguments that sensory consistency and performance reliability remain central to repeat patronage. Second, it provides stronger comparative evidence that service quality

continues to function as the most influential determinant in experiential retail environments, reinforcing the centrality of relational and interpersonal dynamics in loyalty formation. Third, the findings offer greater conceptual clarity regarding the role of digital infrastructure, demonstrating that while technological features enhance convenience and operational efficiency, they operate in a conditional and complementary manner rather than as independent drivers of loyalty. Finally, by empirically comparing the relative predictive strengths of product quality, service quality, and digital infrastructure quality within a single integrated model, this study extends prior research that often examined these constructs separately. In doing so, it contributes to a more structured and hierarchically informed understanding of quality–loyalty relationships in hybrid service ecosystems.

CONCLUSION

This study examined the relative and combined effects of product quality, service quality, and digital infrastructure quality on customer loyalty within the Malaysian coffee retail industry. By applying correlation and multiple regression analyses, the research provides empirical insight into how traditional service attributes and technology-enabled features jointly shape loyalty formation in a hybrid retail environment.

The findings indicate that service quality is the most influential determinant of customer loyalty ($\beta = 0.542$, $p < 0.001$), underscoring the central role of employee responsiveness, reliability, and interpersonal engagement in fostering long-term customer commitment. Product quality also demonstrates a significant positive effect ($\beta = 0.208$, $p < 0.01$), confirming that consistency in taste, freshness, and overall beverage standards remains essential in sustaining repeat patronage. In contrast, although digital infrastructure quality exhibits a positive coefficient ($\beta = 0.135$), its relationship with customer loyalty is not statistically significant ($p > 0.05$). This result suggests that while digital features such as mobile ordering systems and cashless payment options enhance transactional convenience and operational efficiency, they do not independently drive loyalty when service and product performance are evaluated concurrently.

Collectively, the model explains 41.4% of the variance in customer loyalty ($R^2 = 0.414$), indicating moderate explanatory strength and demonstrating that integrated quality dimensions meaningfully contribute to loyalty development. The results affirm that customer loyalty in contemporary café settings is multidimensional in structure, yet predominantly anchored in relational service excellence and consistent product delivery. Digital infrastructure functions primarily as a facilitating mechanism that strengthens the overall customer experience rather than serving as a primary loyalty driver.

From a managerial perspective, the findings emphasize the importance of sustained investment in employee capability development, service standardization, and rigorous product quality control as strategic priorities for retention. While digital platform enhancement remains relevant, it should be positioned as an enabling support system that complements core operational strengths. Aligning superior service execution with reliable digital functionality can reinforce competitive advantage and sustain long-term customer relationships in an increasingly technology-integrated market.

Overall, this study advances the understanding of loyalty formation by empirically comparing physical and digital quality dimensions within a unified analytical framework. The evidence indicates that although technological integration enriches the customer journey, enduring loyalty continues to be grounded in consistent product excellence and meaningful service interactions.

LIMITATION

This study is subject to several limitations related to sampling design, measurement structure, and contextual scope. First, the use of convenience sampling and online data collection via Google Forms may have resulted in a respondent profile skewed toward younger and more digitally active consumers. Such a distribution potentially limits the generalizability of the findings across broader demographic segments, particularly older customers or individuals with varying levels of digital literacy. As digital engagement may shape perceptions of service and infrastructure quality differently, the sample composition could influence the relative strength of the examined relationships.

Second, each construct in this study was operationalized using three measurement items. While this approach enhanced survey clarity and respondent completion rates, it may not have fully captured the multidimensional complexity of the constructs. This limitation is particularly relevant for digital infrastructure quality, which may encompass additional dimensions such as system security, personalization features, interface design, reliability, and data privacy assurance. A more extensive scale could provide greater conceptual depth and measurement precision in future investigations.

Third, the empirical focus on a single coffee retailer within the Malaysian market constrains the external validity of the findings. Customer expectations, competitive dynamics, and digital adoption patterns may vary across different food and beverage segments or cultural environments. Consequently, the observed relationships may not be directly transferable to other industries or geographical contexts with distinct service ecosystems.

Future research is therefore encouraged to employ probability-based sampling techniques, develop more comprehensive measurement instruments, and conduct cross-brand, cross-industry, or cross-cultural comparative studies. Such approaches would strengthen generalizability and provide a more nuanced understanding of how traditional and digital quality dimensions interact in shaping customer loyalty across diverse retail settings.

ACKNOWLEDGMENT

The authors express gratitude to those who have had the pleasure of cooperating during this study or research.

DECLARATION OF CONFLICTING INTERESTS

The authors have declared no potential conflicts of interest concerning the study, authorship, and/or publication of this article.

REFERENCES

Babbie, E. (2013). *The Practice of Social Research* (13th ed.). Wadsworth Cengage Learning.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). Sage Publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334. https://doi.org/10.1007/BF02310555

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, *19*(4), 9-30. https://doi.org/10.1080/07421222.2003.11045748

Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, *22*(2), 99-113. https://doi.org/10.1177/0092070394222001

Ellitan, L., & Suhartatik, A. (2023). Increasing repurchase intention through product quality, service quality, and customer satisfaction. *International Journal of Research, 10*(10), 25–36. https://doi.org/10.5281/zenodo.8434079

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.1

Evans, J. R., & Mathur, A. (2018). The value of online surveys: A look back and a look ahead. *Internet Research, 28*(4), 854–887. https://doi.org/10.1108/IntR-03-2018-0089

Ganatra, V., Teoh, K. B., Sapian, N. B., Kee, D. M. H., Ud, N. A. M., Zulkepli, N. D., Mokhtar, N. F. F., & Jaiswar, K. (2021). Contributing factors to customer loyalty in fast-food restaurants: A study of KFC. *Advances in Global Economics and Business Journal, 2*(2), 33–45. https://doi.org/10.51748/agebj.v2i2.33

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Pearson.

Hanafi, M. F. M., Shahril, A. M., Gaffar, V., & Rahman, A. R. A. (2025). Exploring the coffee shop experience: The impact of customer experience on revisit intentions in urban specialty coffee shops. *Journal of Nusantara Studies*, *10*(2), 417-448. https://doi.org/10.24200/jonus.vol10iss2pp417-448

Husna, N., Kee, D. M. H., Amirah, N. W., Syazreeza, R., Fatihah, N. A., Pandey, S., Agnihotri, S., & Pandey, R. (2020). How organizational management affect employees' motivation and service quality: A study of Kentucky Fried Chicken (KFC). *International Journal of Applied Business and International Management, 5*(2), 73–81. https://doi.org/10.32535/ijabim.v5i2.860

Irfan, S. M., & Kee, D. M. H. (2013). Critical success factors of TQM and its impact on increased service quality: A case from service sector of Pakistan. *Middle-East Journal of Scientific Research*, *15*(1), 61-74. https://doi.org/10.5829/idosi.mejsr.2013.15.1.828

Irfan, S. M., Kee, D. M. H., & Shahbaz, S. (2012). Service quality and rail transport in Pakistan: A passenger perspective. *World Applied Sciences Journal*, *18*(3), 361-369. https://doi.org/10.5829/idosi.wasj.2012.18.03.3044

Jimoh, A., Lukman, D., Kee, D. M. H., Odebunmi, A., & Tunde, A. (2020). Does talent management practices impact service quality in Nigeria? *Journal of Southwest Jiaotong University, 55*(5), 1–12. https://doi.org/10.35741/issn.0258-2724.55.5.8

Kee, D. M. H., Ali, A. J., Ng, L. W., Ng, Y. Y., Tay, N. S. B. A., Shafinah, N. A., & Nafiya, L. E. N. E. K. A. (2025). Clicks to connection: How digital marketing drives customer and brand loyalty in e-commerce. *International Journal of Tourism and Hospitality in Asia Pacific, 8*(2), 198–217. https://doi.org/10.32535/ijthap.v8i2.3994

Kee, D. M. H., Gan, Z. W., Chan, Y. Q., Lee, H. T., Tan, X. Y., & Lee, S. W. (2021a). Customer satisfaction and brand loyalty: A case study of Nestlé. *Advances in Global Economics and Business Journal, 2*(1), 13–26. https://doi.org/10.51748/agebj.v2i1.24

Kee, D. M. H., Liem, G. S., Yuan, N. Z., Ni, N. L. Y., Wen, N. K., Fang, N. S., & Mulsyi, U. A. (2024). The influence of customer satisfaction, brand trust and brand loyalty on purchase intention: A study of McDonald's in Malaysia. *International Journal of Tourism & Hospitality in Asia Pacific, 7*(3), 315–328. https://doi.org/10.32535/ijthap.v7i3.2343

Kee, D. M. H., Murthy, R., Ganasen, R., Lingam, R. R., & Chandran, R. (2021b). The impact of marketing on customer loyalty: A study of Dutch Lady in Malaysia.

International Journal of Accounting & Finance in Asia Pacific, 4(3), 31–41. https://doi.org/10.32535/ijafap.v4i3.1203

Khairatun, S. N., & Shen, L. L. K. (2025). Identifying key factors for success: A SWOT analysis of Zhai Coffee. *Quantum Journal of Social Sciences and Humanities, 6*(SI1), 1–13. https://doi.org/10.55197/qjssh.v6si1.899

Kotler, P., & Armstrong, G. (2018). *Principles of Marketing* (17th ed.). Pearson.

Kuek, T. Y., Yusof, R., Roslan, S. R. B., Vats, I., Singhal, J., Chaudhary, K., & Kee, D. M. H. (2024). How does Starbucks develop brand loyalty among its customers in Asia? Insights from Malaysia, Indonesia, and India. *Advances in Global Economics and Business Journal, 5*(2), 95–106. https://doi.org/10.51748/agebj.v5i2.97

Kumar, A. (2024). A study on consumer satisfaction towards online shopping. *A Blind Review & Referred Quarterly International Journal*, 2250-1940.

Lew, C., Teoh, K. B., Lok, Y. H., Lew, Y. R., Li, H., Li, J., Ali, A. J., & Kee, D. M. H. (2025). Factors influencing IKEA purchase decisions in Malaysia: Pricing, convenience, consumer experience, and loyalty. *Advances in Global Economics and Business Journal, 6*(1), 37–77. https://doi.org/10.51748/agebj.v6i1.102

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology, 22*(140), 1–55.

Lim, Y. H., Kee, D. M. H., Lai, X. Y., Lee, Z. M., Low, M. Q., Sariya, S., & Sharma, S. (2020). Organizational culture and customer loyalty: A case of Harvey Norman. *Asia Pacific Journal of Management and Education, 3*(1), 47–62. https://doi.org/10.32535/apjme.v3i1.743

Maisarah, N., Kee, D. M. H., Syakirah, N., Hanif, M. A., Bella, A., Pandey, R., Almuhaini, R. F., & Quttainah, M. A. (2020). Customer satisfaction towards service quality: A study of Malindo Air. *International Journal of Tourism and Hospitality in Asia Pacific, 3*(3), 40–51. https://doi.org/10.32535/ijthap.v3i3.943

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research, 17*(4), 460–469. https://doi.org/10.1177/002224378001700405

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing, 63*(Special Issue), 33–44. https://doi.org/10.1177/00222429990634s105

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40.

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research, 7*(3), 213–233. https://doi.org/10.1177/1094670504271156

Pérez-Morón, J., Madan, S., Cheu, J. Y., Kee, D. M. H., Cheong, L. C., Chin, R., ... & García, A. P. M. (2022). Effect of service quality and customer satisfaction on customer loyalty: A case study of Starbucks in Malaysia. *International journal of tourism and hospitality in Asia Pasific*, *5*(1), 62-74. https://doi.org/10.32535/ijthap.v5i1.1402

Rahman, M. A., Sulaiman, Y., Mat, N. K. N., & Hassan, Z. U. R. A. I. D. A. (2023). What influences customers to revisit full-service restaurants in Malaysia. *WSEAS Transactions on Business and Economics, 20*, 1971–1983. https://doi.org/10.37394/23207.2023.20.172

Ruiz, E. H., Restrepo, C. A. P., Lopez, C. A., Kee, D. M. H., Ganasan, K. A., Jegathesan, K. A., & Rao, P. A. N. (2020). Samsung: Customer loyalty strategy in Malaysia and Colombia. *International Journal of Accounting & Finance in Asia Pacific, 3*(2), 57–67. https://doi.org/10.32535/ijafap.v3i2.835

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). John Wiley & Sons.

Singh, P., Ranjith, P. V., Fathihah, N., Kee, D. M. H., Nuralina, N., Nurdiyanah, N., & Nursyahirah, N. (2021). Service quality dimension and customers' satisfaction: An empirical study of Tesco hypermarket in Malaysia. *International Journal of Applied Business and International Management*, *6*(3), 102-114. https://doi.org/10.32535/ijabim.v6i3.133

Song, N. H., Wuryaningrat, N. F., Ibrahim, A. F. M., Kee, D. M. H., Nasir, A. I. M., San, A. L., George, A. R. E., & Kawung, R. (2022). Manpower and service quality of fast-food restaurant: KFC Restaurant. *Journal of Community Development in Asia, 5*(1), 54–66. https://doi.org/10.32535/jcda.v5i1.1385

Teoh, K. B., Lim, H. L., Cheah, F. N., Chai, J. X., Chan, S. L., Chang, W. J., Ali, A. J., & Kee, D. M. H. (2025). Exploring the impact of sustainability, corporate social responsibility, and service quality on corporate brand reputation. *International Journal of Tourism and Hospitality in Asia Pacific, 8*(2), 237–252. https://doi.org/10.32535/ijthap.v8i2.3990

ABOUT THE AUTHOR(S)

1st Author
Dr. Lok Yee Huei is currently a senior lecturer at Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia. She obtained her PhD in Financial Reporting, Master of Economic Management, and Bachelor of Accounting from Universiti Sains Malaysia. Her research interests include integrated reporting, corporate reporting, corporate disclosures, and business management. She has over 10 years of teaching experience in higher learning institutions. In 2020, she received the Best Paper Award at the 6th Asia International Conference organized by Connecting Asia.
Email: lok.yee.huei@uum.edu.my.

2nd Author
Lay Hong Tan is an undergraduate student at the National University of Sciences and Technology (NUST), Pakistan. She is currently pursuing a Bachelor of Management with a concentration in Marketing. Her research interests include customer satisfaction, consumer behavior, and service quality within the airline industry. She has also been involved in several academic projects aimed at improving service delivery in the aviation sector.

3rd Author
Dr. Ranjith P. V. has over 18 years of academic experience and holds a PhD in Service Quality, with research interests in operations management, quality management, quantitative techniques, and project analysis. He has published widely in reputable management journals, participated in workshops organized by the Academy of International Business, and serves on the review committee of AIBPM. Dr. Ranjith has taught in several well-known institutions in Mumbai and is currently an Associate Professor at CMS Business School, JAIN (Deemed-to-be University), Bangalore, India. Proficient in SPSS and marketing engineering tools, he is committed to continuous learning and actively shares his expertise with students, faculty members, and the corporate community.

4th Author
Prof. (Dr.) Bhupendra Kumar is a faculty member in Accounting and Finance at Amity University, India, with a strong research portfolio specializing in data-driven modelling, predictive analytics, financial technologies, machine learning applications, and blockchain-based economic tools. He has authored numerous high-impact publications indexed in reputable journals and conferences, with over 639 citations, an h-index of 14, and an i10-index of 20. His notable works include studies on emotional recognition using

deep learning algorithms, predictive analytics in business and finance, and IoT-based suspicious activity detection. As an active academic contributor, he is engaged in interdisciplinary research spanning artificial intelligence, financial development, and computational intelligence. He continues to collaborate across domains to advance knowledge in emerging technologies and their applications in business and finance.

5th Author
Cheng Wen Xuan is currently an undergraduate student at the School of Management, Universiti Sains Malaysia.
Email: xwcheng19@student.usm.my

6th Author
Chen Jia Xin is currently an undergraduate student at the School of Management, Universiti Sains Malaysia.
Email: chenjiaxin07@student.usm.my

7th Author
Chen Zhan Hang is currently an undergraduate student at the School of Management, Universiti Sains Malaysia.
Email: zhanhang@student.usm.my

8th Author
Chen Zi Xian is currently an undergraduate student at the School of Management, Universiti Sains Malaysia.

9th Author
Pullela Sneha Latha is currently pursuing a PGDM from IMS Ghaziabad. Her academic and research interests include marketing, consumer behavior, Human resources, and the application of artificial intelligence in management studies. She is keen on understanding data-driven decision-making and contemporary business practices.

10th Author
Hafis Mohammed P is currently pursuing an MBA in Marketing and Operations & Supply Chain Management at Presidency University, Bangalore. His academic and professional interests include digital marketing, project management, operations optimization, and consumer behavior. He is keen on applying data-driven decision-making, content-led marketing strategies, and operational efficiency to solve real-world business challenges, and also has a strong inclination toward leadership and social impact, supported by his experience in internships and community service initiatives.
Email: HAFIS.20242MBA0082@presidencyuniversity.in

11th Author
Nida Sarfaraz is currently an undergraduate student at Amity University, India.
Email: nidagour0123@gmail.com

12th Author
Dr. Daisy Mui Hung Kee is an Associate Professor at the School of Management, Universiti Sains Malaysia. She earned her Ph.D. from the University of South Australia and an MBA from USM. A prolific scholar, she has authored over 85 Web of Science-indexed and 127 Scopus-indexed publications. In addition to her academic contributions, Dr. Kee serves as the Country Director for the Association of International Business and Professional Management (AIBPM) and the STAR Scholars Network.
Email: daisy@usm.my
ORCID ID: https://orcid.org/0000-0002-7748-8230