

The Moderating Role Of UTAUT In The Relationship Between E-Service Quality And Purchase Intention

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Abstract

The swift evolution of digital technology within the food and beverage sector has significantly reshaped consumer habits, especially regarding the integration of tech-driven services in coffee shops. To meet customer expectations, companies must provide digital services that are efficient, reliable, and user-centric. In the modern marketplace, consumer assessment extends beyond product inherent quality to include technological features and online service standards. E-service quality, therefore, acts as a fundamental driver of purchase intention, with its significance highlighted by the UTAUT framework's capacity to evaluate consumer adoption behavior. Focusing on Faste Coffee patrons in Bandar Lampung, this investigation aims to analyze how e-service quality influences consumer purchase intentions, with a particular emphasis on examining the moderating role played by the UTAUT model. This quantitative investigation utilized a purposive sampling technique to select a sample of 385 respondents who met the specific eligibility criteria. Data collection was carried out via structured questionnaires, while the structural relationships were evaluated using Partial Least Squares-Structural Equation Modeling (PLS-SEM). Statistical analysis reveals that the mechanism through which e-service quality influences purchase intention is complex, as the UTAUT model functions as both an intervening mediator and a significant moderator within this dynamic.

Keywords: E-Service Quality, UTAUT, Purchase Intention, Coffee Shop



INTRODUCTION

Modern consumers consider not only product quality but also speed, efficiency, and convenience when making transactions. Various coffee shops have begun using online ordering systems and technology based services in an effort to meet the needs of increasingly modern consumers as the use of digital services rises.

The growing number of coffee shops in Bandar Lampung indicates a high level of competition. This situation requires coffee shops to excel in both their products and digital services. In this context, the quality of email service is a critical component that demonstrates the system's ability to provide efficient, reliable, secure, and user-friendly service. Ajzen (1991) explained that behavioral intention is considered the main factor that drives individuals to perform certain actions, including making purchasing decisions. In digital service settings, consumers' intention to purchase is strongly influenced by how they perceive service quality and how easy the technology is to use.

Digital service quality may not consistently enhance consumer purchase intent, as individual consumers exhibit differing levels of technology acceptance. Consequently, a method is required to clarify how factors affecting technological acceptability influence the correlation between digital service quality and consumer purchase intention.

The UTAUT model posits that several factors influence technology adoption. This conceptual framework synthesizes four primary dimensions: performance expectancy, effort expectancy, social influence, and facilitating conditions. Consequently, the UTAUT model is integrated into this study to evaluate its capacity in modulating the specific degree to which e-service quality shapes purchase intention. Consumers who demonstrate a higher level of technology acceptance are generally more comfortable using digital services, allowing high-quality services to have a stronger impact on their purchasing interest. As a result, measuring the specific impact exerted by e-service quality upon consumer purchase intentions became the primary goal of this study, while simultaneously analyzing the moderating role of the UTAUT framework among Faste Coffee patrons in Bandar Lampung.

LITERATURE REVIEW

E-Service Quality

Electronic service quality is defined as the standard of service provided through digital channels, including websites and mobile applications. Zeithaml et al. (2002), state that e-service quality measures how well a system can offer transaction process convenience, dependability, security, and accessibility. The degree to which a system

1278

IJEBIR, Volume 05 Issue 04, 2026



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can offer convenience, security, dependability, and ease of access throughout the transaction process is referred to as service quality. In a digital environment, consumers interact with the system rather than directly with staff, therefore system performance profoundly influences service quality. Reliability, efficiency, system availability, and data security are critical factors for assessing the quality of an e-service. According to (Parasuraman et al., 2005; Santos, 2003), good digital services can increase customer satisfaction and trust while also stimulating purchase intention.

Purchase Intention

Purchase intention is defined as a buyer's interest in purchasing a service or product. According to Kotler & Keller (2016), consumers evaluate their information and experiences before forming a purchase intention. Furthermore, purchase intention serves as an early indicator of the likelihood that actual purchasing behavior will occur. According to Schiffman & Wisenblit (2015), consumer purchase intention is driven by several critical determinants, including user experience, perceived trust, and the overall standard of service quality. In the case of digital-based services, consumers who have had positive experiences with the system will feel comfortable and confident, making them more interested in purchasing.

Unified Theory of Acceptance and Use of Technology

In their study Venkatesh et al. (2003), utilized the UTAUT framework to elucidate how individuals accept and adopt new technologies. Performance expectancy, effort expectancy, social influence, and facilitating conditions constitute the primary elements aggregated by this specific model. Consequently, user behavior depends strictly on the caliber of received services, an outcome inherently modulated by the degree of digital service technology adoption. Consumers with a high level of technology adoption generally find it easier to understand and utilise digital technologies, enhancing their perception of superior service quality.

RESEARCH METHODOLOGY

Investigating the explicit interaction between e-service quality and consumer purchase intentions constituted the main goal of this study, specifically examining how the UTAUT framework functions as a moderating variable within the context of Faste Coffee in Bandar Lampung. This study employed a quantitative method supported by primary data (Sugiyono, 2023). A Google Forms survey was emailed to Faste Coffee

1279

IJEBIR, Volume 05 Issue 04, 2026

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consumers in order to gather information. Respondents' responses were assessed using a five-point Likert scale. Purposive non-probability sampling was used in this study to sample every Faste Coffee client. Customers who had utilised digital services, made a purchase, were willing to engage, and were at least 17 years old met the requirements for respondents. A sample of 385 individuals was taken.

This study employs a PLS-based SEM using the SmartPLS program. The investigation assessed the validity and reliability of the indicators by out-of-model tests, while the correlations among variables were examined using in-model testing. The hypotheses were evaluated utilising path coefficients, p-values, and t-statistics. To evaluate the specific moderating role of the UTAUT framework upon the e-service quality and purchase intention relationship, this investigation applied an empirical design. Consequently, confirming the hypothesis as statistically significant and supported required the empirical data to register a p-value under 0.05 and a t-value above 1.96.

RESULTS AND DISCUSSION

Outer Model

A model can find out the correlations of latent variables and their indicators. This test was conducted to ascertain if the indicators can precisely and validly represent the constructs being measured. The model was evaluated by validity and reliability tests, including composite reliability, AVE, outer loadings, and Cronbach's Alpha.



Table 1. Outer Loading Values

Indikator	E Service Quality X1	Purchase Intention Y	UTAUT Z	Description
X1.1	0.823			Valid
X1.2	0.849			Valid
X1.3	0.824			Valid
X1.4	0.806			Valid
X1.5	0.819			Valid
X1.6	0.830			Valid
X1.7	0.821			Valid
X1.8	0.846			Valid
Y1		0.814		Valid
Y2		0.823		Valid
Y3		0.822		Valid
Y4		0.829		Valid
Y5		0.802		Valid
Y6		0.827		Valid
Y7		0.814		Valid
Y8		0.810		Valid
Z1			0.824	Valid

Indikator	E Service Quality X1	Purchase Intention Y	UTAUT Z	Description
Z2			0.808	Valid
Z3			0.834	Valid
Z4			0.810	Valid
Z5			0.844	Valid
Z6			0.868	Valid
Z7			0.847	Valid
Z8			0.821	Valid

All indicators within the purchase intention, e-service quality, and UTAUT variables had values over 0.70, with an average surpassing 0.80, according to the outer loading test. The e-service quality construct recorded loading values between 0.806 and 0.849, purchase intention between 0.802 and 0.829, and UTAUT between 0.808 and 0.868. According to these numbers, all indicators are highly correlated with the tested constructs, which means they meet the convergent validity criterion. The lack of any indication with

1281

a value below 0.70 indicates that the research instrument has robust stability in measuring all variables. Also, no one indication stands out as particularly strong or weak due to the relatively high and uniformly distributed outer loadings among all of them. This requirement signifies that each indication contributes uniformly to the construct. Consequently, the measurement model is deemed stable and does not necessitate the removal of any indicators.

Table 2. Values of Average Variance Extracted (AVE)

Variabel	Average variance extracted (AVE)	Description
<i>E Service Quality</i>	0.685	Valid
<i>Purchase Intention</i>	0.669	Valid
<i>UTAUT</i>	0.692	Valid

The AVE test findings show that every variable, including e-service quality (0.685), purchase intention (0.669), and UTAUT (0.692), has a value over 0.50. These data indicate that each idea meets the criteria for convergent validity by accounting for over 50% of the variance in its respective indicators. Additionally, as seen by the comparatively high AVE values and the absence of significant differences among the variables, each construct exhibits a high degree of consistency in expressing its accompanying signals. The AVE values confirm that the indicators accurately represent the latent variables without error variance.



Tabel 3. Fornell-Larcker Criterion Values

Variabel	E Service Quality X1	Purchase Intention Y	UTAUT Z
E Service Quality X1	0.827		
Purchase Intention Y	0.661	0.818	
UTAUT Z	0.595	0.786	0.832

The Fornell-Larcker Criterion test findings indicate that the RMSEA for all variables exceeds the correlations among any other variables. The e-service quality variable (0.827) exhibits a greater value than its link with purchase intention (0.661) and UTAUT (0.595). Moreover, the purchase intention variable exhibits a superior value of 0.818 compared to its associations with other factors. The correlations with other factors are inferior to the UTAUT variable's value of 0.832. The model meets the standards for discriminant validity, indicating that each construct is more effective than the others in describing the relevant indicator.

Table 4. Cross-Loadings Results

	E-Service Quality X1	Purchase Intention Y	UTAUT Z
X1.1	0.823	0.537	0.505
X1.2	0.849	0.556	0.496
X1.3	0.824	0.564	0.492
X1.4	0.806	0.497	0.466
X1.5	0.819	0.543	0.461
X1.6	0.83	0.534	0.501
X1.7	0.821	0.566	0.474
X1.8	0.846	0.574	0.542
Y1	0.524	0.814	0.662
Y2	0.486	0.823	0.594
Y3	0.571	0.822	0.652
Y4	0.568	0.829	0.659
Y5	0.554	0.802	0.635
Y6	0.529	0.827	0.67
Y7	0.544	0.814	0.644
Y8	0.544	0.81	0.618
Z1	0.542	0.638	0.824
Z2	0.467	0.632	0.808
Z3	0.523	0.697	0.834
Z4	0.448	0.635	0.81
Z5	0.522	0.648	0.844
Z6	0.514	0.668	0.868
Z7	0.519	0.683	0.847
Z8	0.415	0.624	0.821

The cross-loading test findings show all indicators have cross loading values within their respective measured variables when compared to other variables. Compared to UTAUT and purchasing intention, the e-service quality indicator's loading value is higher than its own construct. Similarly, the purchasing intention and UTAUT indicators have the highest loading values on their corresponding constructions. This indicates the absence of overlap issues and that each indicator effectively represents the measured variable. The cross-loading test indicates that the study on this model has met the criteria for discriminant validity.

Tabel 5. Heterotrait-Monotrait Ratio Results

Variabel	Heterotrait-monotrait ratio (HTMT)
Purchase Intention Y <-> E Service Quality X1	0.708
UTAUT Z <-> E Service Quality X1	0.634
UTAUT Z <-> Purchase Intention Y	0.840

According to the HTMT test results, the total correlation scores among the variables are lower than the suggested upper limit of 0.90. The HTMT values are enumerated as follows: 0.634 correlates UTAUT with e-service quality, 0.840 correlates UTAUT with buy intention, and 0.708 correlates e-service quality with purchase intention. The disparities can be scientifically substantiated by these values. The HTMT value between UTAUT and purchase intention is relatively higher than that of the other variable pairs; nonetheless, it remains below the 0.90 threshold, signifying the absence of discriminant validity concerns.



Tabel 6. Result of The Cronbach's Alpha and Composite Reliability Tests

	Cronbach's alpha	Composite reliability	Description
E Service Quality X1	0.934	0.935	Valid
Purchase Intention Y	0.929	0.930	Valid
UTAUT Z	0.936	0.938	Valid

All indicators checked throughout this investigation proved to be reliable, since their Cronbach's Alpha (CA) and Composite Reliability (CR) consistently cleared the baseline requirements of 0.70. To illustrate, purchase intention obtained statistical marks of 0.929 and 0.930, respectively. Concurrently, the e-service quality variable secured a CA of 0.934 and a CR of 0.935, whereas the UTAUT variable displayed matching criteria of 0.936 and 0.938. These values affirm the reliability of the research instrument, indicating a very high degree of internal consistency across all constructs. Furthermore, each indicator effectively measures the construct with commendable stability, as evidenced by the high and generally balanced reliability values among the variables. However, exceptionally high reliability scores (above 0.90) may suggest redundancy among indicators, necessitating caution to ensure that the indicators are not excessively similar. Nonetheless, in this study, these values remain within acceptable limits and do not compromise the model's integrity. The purchase intention exhibits values of 0.929 and 0.930, the e-service quality variable has a CA of 0.934 and a CR of 0.935, while the UTAUT variable shows values of 0.936 and 0.938. The reliability of the research instrument is confirmed by these values, indicating that all constructs exhibit a high degree of internal consistency. Moreover, each indicator may assess the construct with considerable stability, as evidenced by the high and typically consistent reliability values across variables. However, exceptionally high dependability scores (exceeding 0.90) may indicate redundancy in signage; hence, it is essential to ensure that the signs are not excessively similar. Nonetheless, in this analysis, these values remain within acceptable limits and do not diminish the model's quality.

Inner Model

An inner model, or structural model, evaluates latent variable relationships. This model makes it easier to find correlations between variables and validate concepts,

1285



according to (Hair et al., 2021). The determination of variable relationship paths and their respective significance depends on the verification of the structural model (inner model). This procedural step operates specifically through the close scrutiny of essential statistical markers: path coefficients, t-statistics, p-values, R², and Q² values (Ghozali, 2024).

Table 7. R-Square Test Results

	R-square	Keterangan
Purchase Intention Y	0.675	Kuat
UTAUT Z	0.355	Moderat

From the R² evaluation, the purchase intention variable obtained a coefficient of 0.675. This result demonstrates that e-service quality is capable of explaining 67.5% of the changes occurring in purchase intention, Meanwhile, other unexamined variables account for the remaining 32.5% of the variance. Alternatively, the UTAUT framework obtained an R-square metric of 0.355; this implies that while 35.5% of its fluctuations stem from the specified predictors, a larger portion of 64.5% is shaped by external forces. According to Hair et al. (2021), R-Square values approximating 0.67 are classified as strong, whereas values around 0.33 are regarded as moderate. Accordingly, the proposed research model exhibits a substantial explanatory power with respect to purchase intention, while demonstrating a moderate predictive capability for UTAUT.

Table 8. Q² Predict Test Results

	Q ² predict
UTAUT Z	0.349
Purchase Intention Y	0.434

According to the Q² Predict test results, the UTAUT variable had a Q² value of 0.349 and the buy intention variable had a Q² value of 0.434. The findings demonstrate that the model possesses significant predictive relevance, since all constructs have Q² values over 0. Furthermore, the model demonstrates improved proficiency in forecasting

1286



the major dependent variable of this investigation, as indicated by the greater Q^2 value for the purchase intention variable compared to UTAUT. This outcome indicates that the e-service quality variable significantly impacts the elucidation and forecasting of purchase intention. Consequently, the research model is suitable for further investigation, as it not only clarifies the relationships among variables but also displays substantial predictive potential. The results indicate that the model possesses significant predictive relevance, as all constructs have Q^2 values exceeding 0. Furthermore, the model demonstrates superior predictive capability for the primary dependent variable in this investigation, as seen by the elevated Q^2 value for the purchase intention variable relative to UTAUT. This outcome indicates that the e-service quality variable substantially affects the elucidation and forecasting of purchase intention. The research model is suitable for further investigation since it elucidates the relationships between variables and has strong predictive capability.

$$GoF = AVE \times R^2$$

$$Gof = 0.682 \times 0.515 = 0.351$$

$$Gof = \sqrt{0.351} = 0.592$$

Based on the GoF evaluation, the resulting value of the model was 0.592. This value exceeds the standard criterion of 0.36, indicating that the model falls into the category of high fit. Therefore, the model can be considered reliable in explaining the overall research data and demonstrates strong effectiveness in representing the proposed relationships among variables. However, although the GoF value is categorized as high, contemporary PLS-SEM approaches do not consider GoF as the main criterion for evaluating model quality. Therefore, greater emphasis is placed on Q-Square, R-Square, and hypothesis testing results.

Table 9. Standardized Root Mean Square Residual Test Results

	Saturated model	Estimated model
SRMR	0.039	0.039



Regarding the SRMR test, both the estimated model and the saturated model yielded a value of 0.039. It can be inferred that the model has a reasonable degree of fit because this number stays within the suggested maximum limit of 0.08. A low SRMR score indicates minimal disagreement between the estimated and observed correlation matrices, enabling the model to effectively represent the data. As a result, the model can be regarded as legitimate and appropriate for use in additional study.

Hypothesis Testing

The bootstrapping technique in SEM-PLS was utilised to evaluate the hypothesis through p-values, t-statistics, and path coefficients. The hypothesis is considered valid if the p-values are less than 0.05 and the t-statistics are more than 1.96.

Tabel 10. Results of the testing of path coefficients, t-statistics, and p-values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
E Service Quality X1 -> Purchase Intention Y	0.300	0.297	0.053	5.646	0.000
E Service Quality X1 -> UTAUT Z	0.595	0.594	0.053	11.206	0.000
UTAUT Z -> Purchase Intention Y	0.607	0.608	0.047	12.972	0.000

H1: E-Service Quality's Impact on Purchase Intention

A positive and significant influence is exerted by e-service quality toward purchase intention, according to the statistical analysis. This relationship is confirmed because the p-value (0.000), t-statistic (5.646), and path coefficient (0.300) collectively verify and support hypothesis H1. Consequently, any strategic enhancement in e-service quality serves as a powerful catalyst in escalating consumer purchase intentions.



H2: UTAUT's Impact on Purchase Intention

A positive and significant impact is directed by UTAUT toward purchase intention, according to the statistical verification. Because the study documented a path coefficient of 0.607 alongside a t-statistic of 12.972 and a p-value of 0.000, it is clear that higher levels of technology acceptance act as a primary catalyst in stimulating consumer purchasing intention.

Table 11. Indirect Effect Test Findings

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P- values
E Service Quality X1 -> UTAUT Z -> Purchase Intention Y	0.362	0.362	0.05	7.253	0.000

Through the UTAUT framework, e-service quality exerts an indirect impact toward purchase intention, according to the bootstrapping evaluation. Proving this structural mechanism, the generation of a 0.362 path coefficient, a 7.253 t-value, and a 0.000 significance p-value substantiates the critical function of UTAUT as an intervening variable. Notably, the magnitude of this indirect effect (0.362) is larger than the direct impact exerted by e-service quality on consumer purchase intentions (0.300). which necessitates further investigation. This implication suggests that enhancing digital service quality alone may not directly lead to higher customer purchase intention, highlighting the essential role of UTAUT in facilitating this relationship. However, in order to increase purchase intention, service quality is the primary factor that influences customers' level of technical acceptability. Another way to express this is that technology adoption serves as a vital mechanism connecting digital service quality and consumer behaviour. Alalwan et al. (2017) contend that customer experience and technical acceptance significantly affect the quality of digital services in mobile meal ordering applications, hence impacting the intention to repeat the service. Technology acceptance is a major component affecting



the effectiveness of digital services in influencing customer behaviour, as indicated by the poll.

CONCLUSION

This study examined the significance of electronic service quality on purchase intentions and the role of UTAUT among Faste Coffee users in Bandar Lampung. The results demonstrate that the quality of e-services significantly and positively affects purchasing intention. Furthermore, e-service quality exerts positive impact on UTAUT, therefore significantly enhances purchase intention.

The examination of indirect effects reveals that UTAUT substantially strengthens the connection among e-service quality and purchase intention. Consequently, enhancing digital service quality and promoting technological adoption are essential strategies for increasing consumer purchase intention in the digital coffee shop industry.

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