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Craving Continuity: Unveiling the Impact of Integrating Information System Success and Expectation Confirmation Models on Sustained Use of Food Delivery Apps

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ABSTRACT
This study aims to investigates the complex dynamics of users' intention to continue using food delivery applications, examining the interplay between information system success and expectation confirmation models. Additionally, it explores the influence of perceived promotion, perceived time saving, and the moderating effect of trust on users' inclination to persist with these applications. To gather data, a quantitative survey was conducted among 462 users of food delivery applications, selected through non-probability sampling methods. The collected data was then analyzed using Structural Equation Modeling (SEM), employing the PLS-SEM technique. The findings reveal that all the examined variables confirmation, perceived usefulness, system quality, information quality, service quality, perceived enjoyment, perceived promotion, perceived time saving, and satisfaction have a positive influence on the intention to continue using food delivery apps. Moreover, the study highlights the crucial role of trust in amplifying the relationship between user satisfaction and their decision to continue using these services. This research offers valuable insights into the complex dynamics of consumer behavior in the digital age, particularly within the context of food delivery app usage. By understanding the factors that drive user satisfaction and continued engagement, industry practitioners and policymakers can develop more effective strategies to improve service quality, optimize promotional efforts, and ultimately enhance user experiences within this rapidly evolving landscape.
Keywords: Success model, Expectation Confirmation Model, User Satisfaction, Food Delivery Apps (FDAs), Indonesia, User Persistence, Trust.

INTRODUCTION

The digital revolution has irrevocably reshaped consumer behavior, with the food industry undergoing a particularly transformative shift (Hoang & Le, 2020; Nivornusit et al., 2024; Parwez, 2022). The rise of food delivery applications (FDAs) has granted users unprecedented convenience (Chowdhury, 2023) and choice (Shah et al., 2021, 2022, 2023), thereby fostering a hypercompetitive environment. While the initial adoption of FDAs is primarily driven by these

factors, maintaining long-term user engagement poses a significant challenge for developers (Yao & Li, 2024).

The Indonesian food delivery industry has emerged as a dynamic and fiercely competitive sector characterized by rapid platform proliferation and consumer behaviors marked by low brand loyalty. Despite generating significant revenues—rising from $12.2 million in 2022 to an anticipated $33.2 million by 2027—the market exhibits a concentration of power, with substantial players Grab and Gojek dominating nearly 93% of the total Gross Merchandise Value, which was valued at $4.5 billion in 2022 (Alnasser & Abaalkhail, 2024; Gani et al., 2023; Shah et al., 2022).

Despite extensive research on continued usage intention within various digital contexts (Alalwan, 2020; Franque et al., 2021; Ramos, 2022; Sasongko et al., 2021; Tan et al., 2020; Teng et al., 2023; Zhao & Bacao, 2020), studies explicitly addressing the food delivery sector, particularly in Indonesia, remain sparse. Previous inquiries have primarily focused on isolated applications of the Expectation Confirmation Model (ECM) and Information System Success (ISS) model without exploring their combined potential, which has been examined in limited contexts such as Taiwan (Nguyen et al., 2023).

Furthermore, the scope of existing research often narrows to prominent platform-toconsumer services like GoFood, GrabFood, and ShopeeFood, while restaurant-to-consumer platforms that operate their applications are less studied (Juliana et al., 2024; Kurniawan et al., 2024). 'Craving Continuity' study seeks to address these gaps by integrating ECM and ISS to explore a broad spectrum of food delivery platforms in Indonesia. It aims to uncover how consistent and predictable user experiences can enhance engagement and revolutionize retention strategies, thus providing critical insights for sustaining interest in this burgeoning market.

This research focuses on consumer perceptions and behaviors influenced by perceived promotions and time savings (Yao & Li, 2024). It examines the moderating effect of trust on these relationships (Su et al., 2022). By delving into these underexplored variables, 'Craving Continuity' contributes significantly to understanding what drives continued usage intentions in Indonesia's online food delivery sector. This quantitative exploration addresses the ongoing usage intentions of food delivery apps, probing into how user satisfaction and the fulfillment of expectations, moderated by trust, affect their continued use.

The main goal of the study is to explore two key research questions: 1. How does user satisfaction with app features, as defined by the ISS Model, combined with the fulfillment of user expectations, as outlined in the ECM, influence the continued use of food delivery apps? 2. What role does trust play as a moderating factor in the sustained use of these apps, particularly when considering the integration of the ISS Model with the ECM? This paper makes significant contributions to information systems and service management. First, it extends the application of the ISS Model (DeLone and McLean, 2003) and the ECM (Bhattacherjee, 2001) to the context

of food delivery apps. This area has seen exponential growth, yet there is limited scholarly examination of this theoretical intersection.

Our results provide new insights into how user satisfaction and service quality perceptions influence the continued use of these platforms, filling a crucial gap in contemporary service management literature. Secondly, by integrating these models, this study offers a more comprehensive framework for understanding the drivers of sustained app engagement. We empirically demonstrate that both perceived system quality and confirmation of expectations are critical in shaping user retention decisions, an essential factor for the economic viability of app-based services. This enhanced understanding aids practitioners in designing more effective user engagement strategies, which are vital for maintaining competitive advantage in the fast-paced digital marketplace.

Lastly, our research methodologies adapt and validate measurement scales in mobile commerce, contributing robust tools for the future. In summary, this study investigates the impact of combining ISS and ECM Models on the prolonged use of food delivery applications. It seeks to determine the crucial factors contributing to ongoing user engagement and satisfaction with these platforms.

RESEARCH METHODS

Sample and Data Collection

This study utilizes a quantitative, descriptive, and cross-sectional survey method. A non-probability purposive sample of 462 participants over 18 years old, who had used food delivery apps and made transactions within the last three months, was recruited via online platforms. Data were collected using a rigorously validated questionnaire, comprising 41 items (Table 1) on a 7-point Likert scale, distributed through Google Forms. The questionnaire underwent wording tests and pre-tests with five active users, followed by a pilot test with 30 respondents, ensuring content validity and clarity. Participants who failed the screening question or exhibited straight-lining response patterns were excluded, ensuring data quality. The final sample of 462 valid responses was subjected to further analysis to examine the specific research objectives.

Table 1. Construct and Measurement Items

Construct	Citation	Items
Confirmation	(Foroughi et al., 2023)	C1: My experience with using Food Delivery Apps was better than I expected. C1: My experience with using Food Delivery Apps was better than I expected. C3: Overall, most of the expectations from using Food Delivery Apps were confirmed.
Satisfaction	(Zhao & Bacao, 2020)	S1: I am very satisfied that Food Delivery Apps meet my requirements. S2: I am satisfied with Food Delivery Apps S3: My interaction with the Food Delivery Apps is very satisfying. S4: I think I did the right thing by using Food Delivery Apps
Perceived Usefulness	(Yen, 2023)	PU1: I can efficiently use the Food Delivery Apps at anytime and anywhere PU2: I can find restaurant information and use Food Delivery Apps anytime and anywhere PU3: It is convenient to find restaurant information and use Food Delivery Apps

Construct	Citation	Items
		PU4: Using the Food Delivery Apps is useful to my daily life
Perceived Enjoyment	(Yen, 2023)	PE1: Using the Food Delivery Apps is truly fun. PE2: I kill time by finding restaurant information by using the Food Delivery Apps PE3: I use the Food Delivery Applications not because I have to but because want to PE4: Compared to other platforms, the time spent using the Food Delivery Apps is truly enjoyable. PE5: I enjoy reading about the restaurant by using the Food Delivery Apps PE6: Using the Food Delivery Apps itself is enjoyable to me.
System Quality	(Wang et al., 2019)	SQ1: This app is user-friendly. SQ2: This app is easy to use. SQ3: This app has high reliability without errors. SQ4: This app has high efficiency
Information Quality	(Hoang & Le Tan, 2023)	IQ1: Food Delivery Apps allow me to search and get the information I need quickly and efficiently. IQ2: The information provided by Food Delivery Apps is accurate and reliable. IQ3: The Information provided by Food Delivery Apps is easy to understand and clear IQ4: Food Delivery Apps helps me get real-time updates
Service Quality	(Zhong & Chen, 2023)	SEQ1: Food Delivery Apps quickly respond to my needs SEQ2: The Food Delivery Apps has the knowledge to answer my questions SEQ3: The Food Delivery Apps understand my specific needs
Perceived Promotion	(Yao & Li, 2024)	PPT1: Discounts on the Food Delivery Apps are encouraging me to place orders PPT2: Coupons on the Food Delivery Apps are important to my decision to place orders. PPT3: Promotions on the Food Delivery Apps are attractive when I place orders.
Perceived Time Saving	(Yao & Li, 2024)	PPT1: Discounts on the Food Delivery Apps are encouraging me to place orders PPT2: Coupons on the Food Delivery Apps are important to my decision to place orders. PPT3: Promotions on the Food Delivery Apps are attractive when I place orders.
Trust	(Zhao & Bacao, 2020)	T1: I believe Food Delivery Apps are trustworthy. T2: I believe Food Delivery Apps keep customer's interests in mind. T3: I felt secure in ordering and receiving delivery food through the Food Delivery Apps T4: The information provided by Food Delivery Applications is reliable.
Continuance Intention	(Yao & Li, 2024)	CI1: I intend to continue using Food Delivery Apps in the future. CI2: I will always try to use Food Delivery Apps in my daily life. CI3: I plan to continue to use Food Delivery Apps frequently.

Measures

In this comprehensive research endeavor, we leveraged established scales from existing literature to thoroughly assess each variable within our proposed conceptual model. Following meticulous data collection, rigorous preliminary analyses were conducted, encompassing outlier screening and normality assessment. This meticulous approach ensured data integrity and minimized potential statistical errors, bolstering the robustness of our findings. To validate the research constructs, we employed SmartPLS-4 (v.4.1.02) to perform comprehensive tests for construct, convergent, and discriminant validity.

Furthermore, we utilized partial least squares structural equation modeling (PLS-SEM) to delve into the intricate direct and indirect relationships within our research model and hypotheses. This sophisticated statistical technique allowed us to uncover the underlying mechanisms and complex interactions between variables, providing a deeper understanding of the phenomena under investigation. By rigorously examining these relationships, we gained

valuable insights into the dynamics that drive our model, ultimately contributing to a more comprehensive and nuanced interpretation of our research findings.

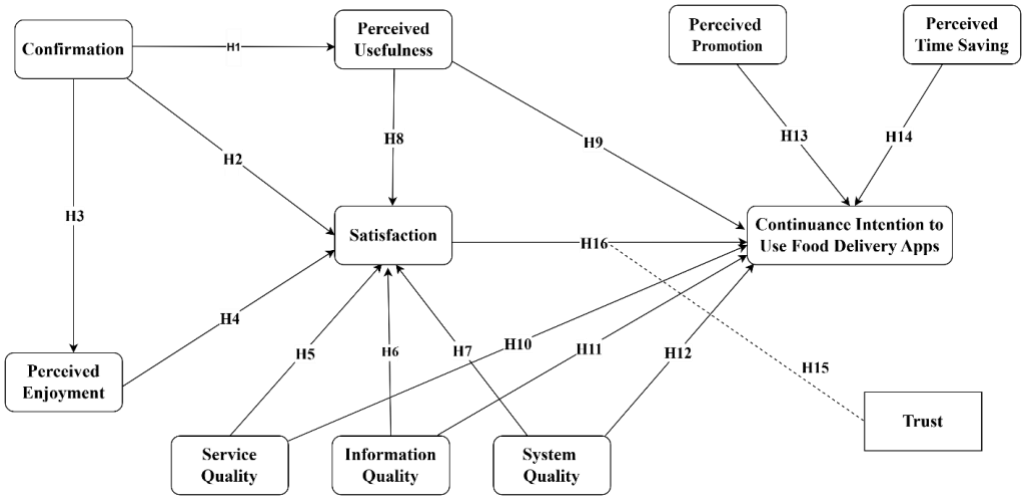

Figure 1. Research framework

RESULTS AND DISCUSSION

Pretest

Data for this study was collected through a questionnaire distributed via Google Forms. Before the full distribution, a pilot test with five individuals was conducted to assess the clarity and comprehensibility of the questionnaire items. The pre-test phase involved 30 respondents and included both validity and reliability testing of the questionnaire. Validity tests confirmed that all indicators met the required criteria (KMO, Anti-Image Correlation, and Component Matrix values exceeding 0.5) and Bartlett's Test Sphericity <0.05, ensuring the questionnaire's suitability for the main study. Reliability tests further demonstrated the questionnaire's consistency, with all variables achieving a Cronbach's Alpha value above 0.5. These results validate the reliability of the measurement instrument and allow the study to proceed to the main testing phase.

Main-Test

Assessment of Measurement Model

We assessed the reliability and validity of our eight reflective measurement scales using composite reliability (CR) and Cronbach's alpha (α). Convergent validity was evaluated with average variance extracted (AVE), while discriminant validity was assessed using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio (Hair et al., 2019, 2022; Henseler et al., 2015). As detailed in Table 1, all CR and α values surpassed the 0.7 threshold, confirming the reliability of our latent constructs. Additionally, significant t-statistics and AVE values above 0.5 indicate convergent validity. Discriminant validity results (Tables 2 and 3) show that AVE values

(diagonal) are greater than squared correlations (off-diagonal) with any other construct. Furthermore, HTMT ratios fall below 0.90, with no cross-loadings (Henseler et al., 2015). Overall, these findings demonstrate that our measurement model exhibits adequate reliability and validity.

Table 2. Composite Reliability & Convergent Validity

Construct		Outer loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	(AVE)
Confirmation	C1	0.897				
Confirmation	C2	0.906	0.875	0.876	0.923	0.800
Confirmation	C3	0.879				
Continuance Intention	CI1	0.894				
Continuance Intention	CI2	0.911	0.879	0.880	0.925	0.805
Continuance Intention	CI3	0.888				
Information Quality	IQ1	0.833				
Information Quality	IQ2	0.873	0.865	0.867	0.908	0.712
Information Quality	IQ3	0.867				
Information Quality	IQ4	0.799				
Perceived Enjoyment	PE1	0.745				
Perceived Enjoyment	PE2	0.784				
Perceived Enjoyment	PE3	0.752	0.883	0.889	0.911	0.630
Perceived Enjoyment	PE4	0.819				
Perceived Enjoyment	PE5	0.834				
Perceived Enjoyment	PE6	0.825				
Perceived Promotion	PPT1	0.888				
Perceived Promotion	PPT2	0.881	0.855	0.855	0.912	0.775
Perceived Promotion	PPT3	0.873				
Perceived Time Saving	PTS1	0.895				
Perceived Time Saving	PTS2	0.903	0.876	0.878	0.924	0.801
Perceived Time Saving	PTS3	0.887				
Perceived Usefulness	PU1	0.880				
Perceived Usefulness	PU2	0.878	0.887	0.888	0.922	0.748
Perceived Usefulness	PU3	0.869				
Perceived Usefulness	PU4	0.830				
Satisfaction	S1	0.876				
Satisfaction	S2	0.887	0.885	0.887	0.921	0.744
Satisfaction	S3	0.856				
Satisfaction	S4	0.831				
Service Quality	SEQ1	0.875				
Service Quality	SEQ2	0.895	0.851	0.852	0.910	0.771
Service Quality	SEQ3	0.864				
System Quality	SQ1	0.823	0.858	0.859	0.904	0.702

Construct		Outer loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	(AVE)
System Quality	SQ2	0.824				
System Quality	SQ3	0.852				
System Quality	SQ4	0.851				
Trust	T1	0.844	0.886	0.888	0.921	0.745
Trust	T2	0.857				
Trust	T3	0.889				
Trust	T4	0.863				
Trust x Satisfaction	T x S	1.000				

Table 3. Discriminant validity: Heterotrait-Monotrait Ratio (HTMT).

	C	CI	IQ	PE	PPT	PTS	PU	S	SEQ	SQ	T	TxS
C												
CI	0.778											
IQ	0.749	0.875										
PE	0.754	0.674	0.751									
PPT	0.711	0.752	0.685	0.590								
PTS	0.715	0.815	0.730	0.610	0.707							
PU	0.717	0.859	0.770	0.667	0.645	0.774						
S	0.775	0.860	0.853	0.727	0.627	0.734	0.793					
SEQ	0.632	0.761	0.681	0.608	0.522	0.660	0.661	0.717				
SQ	0.731	0.843	0.751	0.665	0.656	0.694	0.806	0.827	0.637			
T	0.624	0.772	0.672	0.555	0.640	0.650	0.715	0.651	0.597	0.707		
TxS	0.192	0.316	0.341	0.238	0.308	0.297	0.293	0.267	0.278	0.325	0.510	

Note: C=Confirmation, CI=Continuance Intention; IQ=Information Quality; PE=Perceived Enjoyment; PPT=Perceived Promotion; PTS=Perceived Time Saving; PU=Perceived Usefulness; S=Satisfaction; SEQ=Service Quality; SQ=System Quality; T=Trust.

Table 4. Discriminant validity: Fornell-Larcker Criterion.

	C	CI	IQ	PE	PPT	PTS	PU	S	SEQ	SQ	T
C	**0.894**										
CI	0.684	**0.897**									
IQ	0.650	0.764	**0.844**								
PE	0.668	0.601	0.662	**0.794**							
PPT	0.616	0.652	0.589	0.513	**0.880**						
PTS	0.626	0.716	0.636	0.544	0.611	**0.895**					
PU	0.633	0.760	0.674	0.595	0.563	0.683	**0.865**				
S	0.682	0.760	0.748	0.651	0.546	0.647	0.703	**0.863**			
SEQ	0.546	0.659	0.585	0.535	0.446	0.571	0.575	0.622	**0.878**		
SQ	0.634	0.734	0.646	0.584	0.561	0.602	0.704	0.722	0.546	**0.838**	
T	0.550	0.682	0.590	0.492	0.557	0.574	0.636	0.578	0.518	0.618	**0.863**

Note: C=Confirmation, CI=Continuance Intention; IQ=Information Quality; PE=Perceived Enjoyment; PPT=Perceived Promotion; PTS=Perceived Time Saving; PU=Perceived Usefulness; S=Satisfaction; SEQ=Service Quality; SQ=System Quality; T=Trust.

Assessment of Structural Model

We assessed the suggested relationships using multiple criteria, including VIF, standardized path coefficient, t-statistics, coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and standardized root mean square residual (SRMR). As shown in Table 5 and Table 6, the R^2 values for CI, PE, PU, and S are 0.782, 0.446, 0.400, and 0.708, respectively. The Q^2 values for CI, PE, PU, and S are 0.0751, 0.441, 0.397, and 0.679, respectively, demonstrating the inner model's predictive relevance. F^2 of each predictor in the inner model ranged from 0.007 to 0.805, while the SRMR value was 0.097, i.e., less than the threshold value of 0.10. Therefore, the results still indicate a good model fit for the structural model.

Table 5. Collinearity and F-square

	VIF	f-square
Confirmation →Perceived Enjoyment	1.000	0.805
Confirmation →Perceived Usefulness	1.000	0.667
Confirmation → Satisfaction	2.384	0.025
Information Quality → Continuance Intention	2.833	0.066
Information Quality → Satisfaction	2.566	0.107
Perceived Enjoyment → Satisfaction	2.246	0.011
Perceived Promotion → Continuance Intention	1.925	0.031
Perceived Time Saving → Continuance Intention	2.449	0.025
Perceived Usefulness → Continuance Intention	2.929	0.036
Perceived Usefulness → Satisfaction	2.568	0.023
Satisfaction → Continuance Intention	3.297	0.020
Service Quality → Continuance Intention	1.875	0.040
Service Quality → Satisfaction	1.775	0.033
System Quality → Continuance Intention	2.695	0.030
System Quality → Satisfaction	2.407	0.081
Trust → Continuance Intention	2.364	0.038
Trust x Satisfaction → Continuance Intention	1.319	0.007

Table 6. Coefficient determination

Variabel	R-square	R-square adjusted
Continuance Intention	0.782	0.778
Perceived Enjoyment	0.446	0.445
Perceived Usefulness	0.400	0.399
Satisfaction	0.708	0.703

Table 7. Predictive relevance (Q^2)

	Q^2predict	RMSE (Root Mean Square Error)	MAE (Mean Absolute Error)
Continuance Intention	0.751	0.501	0.376
Perceived Enjoyment	0.441	0.750	0.597
Perceived Usefulness	0.397	0.780	0.598
Satisfaction	0.679	0.569	0.403

Table 8. Model fit

	Saturated model	Estimated model
SRMR	0.046	0.097
Chi-square	2.697.277	2.877.722
NFI	0.821	0.809

We investigated the relationships between the constructs within our proposed model; we employed a bootstrapping procedure with 10,000 resamples, utilizing a sample of 462 cases. We used the standardized path coefficients and their statistical significance as primary indicators for evaluating these relationships. A path coefficient was considered significant if its empirical t-value surpassed 1.96 at a 5% significance level. As shown in Table 8 and Fig. 2, all paths exhibited statistical significance. This result indicates a strong alignment between our collected data and the theoretical expectations outlined in our hypotheses. This robust empirical support significantly bolsters the credibility and validity of our findings, suggesting that our research is firmly grounded in a solid theoretical foundation.

Moreover, the acceptance of all hypotheses underscores the methodological rigor employed in this study and the representativeness of our sample. Interestingly, our analysis revealed that information quality (IQ) had a greater impact on satisfaction (S) than either service quality (SEQ) or system quality (SQ), with path coefficient values of 0.283, 0.240, and 0.130, respectively. Additionally, we identified that information quality (IQ) and perceived usefulness (PU) were the strongest predictors of continued intention to use (CI), with path coefficient values of 0.202 and 0.152, respectively. This influence surpassed the effects observed for service quality (SEQ), system quality (SQ), perceived promotion (PPT), perceived time saving (PTS), and satisfaction (S).

Furthermore, our results demonstrate that confirmation (C) exerted the most substantial impact on perceived enjoyment (PE), with a path coefficient value of 0.668. This was followed closely by perceived usefulness (PU) with a value of 0.633. These comprehensive findings contribute significantly to our understanding of the intricate relationships between the various constructs within the proposed model. They also provide valuable insights for practitioners seeking to enhance customer satisfaction and foster long-term loyalty.

Table 9. Hypothesis testing results

Hypothesis	Structural Paths	Standardized Path Coefficient	T statistics	P values	Supported
H1	Confirmation →Perceived Usefulness	0.633	18.020	0.000	Yes
H2	Confirmation →Satisfaction	0.133	2.941	0.002	Yes
H3	Confirmation →Perceived Enjoyment	0.668	20.137	0.000	Yes
H4	Perceived Enjoyment →Satisfaction	0.086	1.910	0.028	Yes
H5	Service Quality →Satisfaction	0.130	3.456	0.000	Yes
H6	System Quality →Satisfaction	0.240	4.629	0.000	Yes
H7	Information Quality→Satisfaction	0.283	5.596	0.000	Yes
H8	Perceived Usefulness →Satisfaction	0.133	2.986	0.001	Yes
H9	Perceived Usefulness →Continuance Intention	0.152	3.101	0.001	Yes
H10	Service Quality →Continuance Intention	0.127	3.367	0.001	Yes
H11	System Quality→Continuance Intention	0.134	2.534	0.006	Yes
H12	Information Quality→Continuance Intention	0.202	3.938	0.000	Yes
H13	Perceived Promotion→Continuance Intention	0.115	2.944	0.002	Yes
H14	Perceived Time Saving→Continuance Intention	0.116	3.027	0.001	Yes
H15	Trust x Satisfaction→ Continuance Intention	0.042	1.870	0.031	Yes
H16	Satisfaction →Continuance Intention	0.119	2.190	0.014	Yes

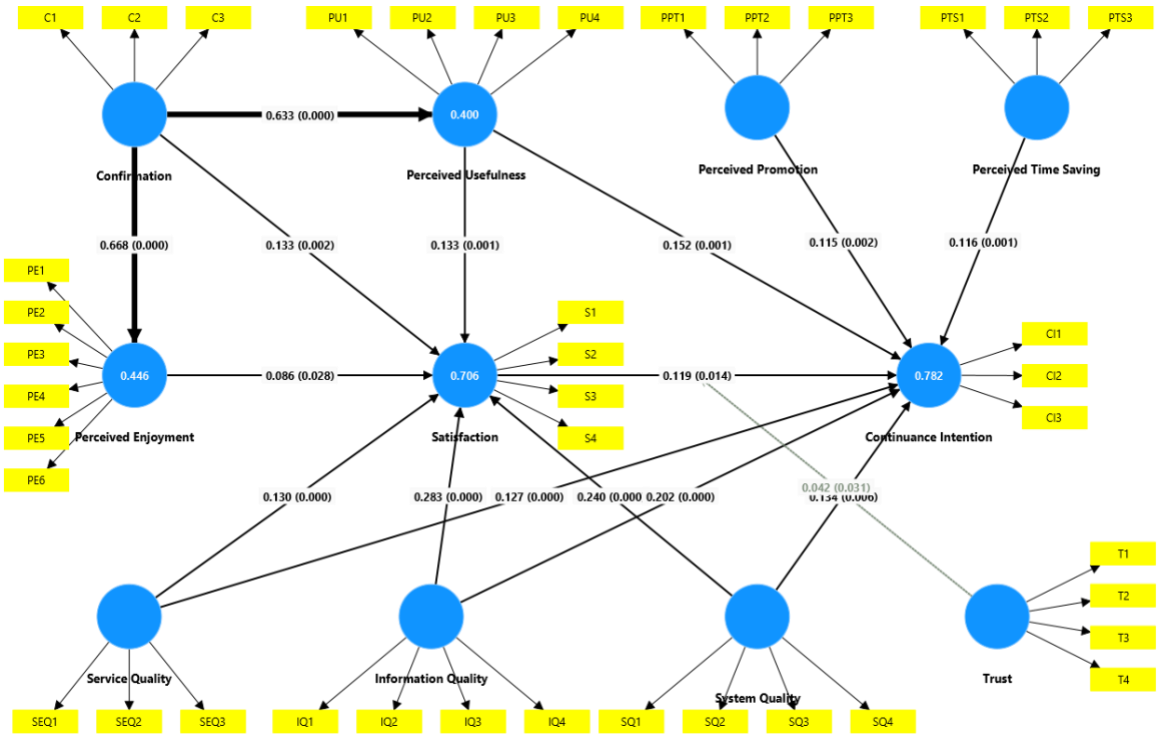

Figure 2. Structural Model

DISCUSSION

This study aimed to investigate the effects of predictors (i.e., satisfaction, perceived enjoyment, perceived usefulness, confirmation, system quality, service quality, information quality, moderating effects of trust on continued intention to use food delivery applications. The

results indicate that satisfaction positively affected continued intention. This result collaborates with findings of many previous studies on food delivery appplications (Alalwan, 2020; Kurniawan et al., 2024; Yao & Li, 2024). Therefore, satisfied consumers are more likely to continue using food delivery apps, according to the ECM, individuals' continued intention is also affected by post-use (modified) expectations, which were represented by perceived time-saving, perceived promotion in the current study (Yao & Li, 2024).

The results indicate a strong positive relationship between confirmation and perceived usefulness, corroborating previous research in the technology acceptance domain. When user expectations about a food delivery app are met or exceeded, this confirmation significantly enhances their perception of the app's utility and value, aligning with the core tenets of the Expectation Confirmation Model. Previous study has indicated that confirmation positively affects perceived usefulness (Huang et al., 2024; Nguyen et al., 2023).

The findings reveal that confirmation not only influences perceived usefulness but also plays a pivotal role in shaping overall satisfaction and perceived enjoyment. This is consistent with the concept of expectation disconfirmation, where positive disconfirmation (exceeding expectations) leads to heightened satisfaction and enjoyment (Bhattacherjee, 2001). Multiple studies have recognized the concept of confirmation as a significant determinant of perceived enjoyment (Agyeiwaah & Suyafei, 2024; Huang et al., 2024; Nguyen et al., 2023; Pandita et al., 2023).

The positive relationship between perceived enjoyment and satisfaction suggests that users who derive pleasure and enjoyment from using the app are more likely to be satisfied with their overall experience. This aligns with the hedonic aspect of technology adoption, emphasizing the importance of creating a user-friendly and enjoyable interface. Studies have consistently found that enjoyment positively impacts satisfaction with technology usage (Akdim et al., 2022; Foroughi et al., 2019; Huang et al., 2024; Pereira & Tam, 2021). Thus, if users perceive food delivery apps as enjoyable, creative, and capable of providing exciting experiences, it is likely to enhance their satisfaction with their use.

The empirical findings unequivocally affirm the pivotal role of service quality in shaping user satisfaction and fostering continued engagement within the food delivery landscape. Consistent with seminal research (Maqableh et al., 2021; Nguyen et al., 2023)the positive effect of service quality on satisfaction underscores the criticality of responsiveness, empathy, and assurance in customer service interactions. Moreover, the enduring impact of positive service experiences on continuance intention, as elucidated by highlights the symbiotic relationship between high-quality service and sustained customer loyalty.

Similarly, the technical performance and reliability of the app, as reflected in system quality, significantly influences user satisfaction and continued usage. DeLone & McLean's (2003) emphasis on a well-functioning and user-friendly interface, the positive relationship between

system quality and satisfaction underscores the importance of a seamless user experience. Additionally, the positive impact of system quality on continuance intention demonstrates that a reliable and efficient app is instrumental in retaining users, as it facilitates a frictionless and enjoyable interaction with the platform (Cheng, 2020; Elsotouhy et al., 2023; Gunden et al., 2020; Jeyaraj, 2020; Zhong & Chen, 2023).

The results indicate that information quality positively affected satisfaction and continuance intention as the strongest predictor of continued intention in the current model. While many previous studies on FDAs have confirmed the effects of information quality on relevant consumer behavior (Bao & Zhu, 2021; Hoang & Le Tan, 2023; Hsiao et al., 2019; Mai et al., 2024) Information quality encompasses various attributes, including the accuracy of assertions, timeliness, comprehensiveness, relevance, and coherence (DeLone & McLean, 2003). In food delivery applications, this information pertains to diverse elements such as the interface and restaurant details (e.g., menus, prices, food descriptions). If a user is satisfied with information provided by food delivery apps, they are likely to have a stronger intention to continue using the app in the future. Information quality increases user trust in the application and provides strong reason for them to continue using the app.

The empirical findings of this study confirm the positive impact of perceived usefulness on both satisfaction and continuance intention in the context of food delivery apps. This corroborates existing research (Kumari & Biswas, 2023; Nguyen et al., 2023)that highlights perceived usefulness as a key determinant of consumer behavior in the digital realm. When users perceive an app as valuable and beneficial in fulfilling their needs, they are not only more satisfied with their experience but also more likely to continue using the platform. This underscores the importance of designing user-centric apps that deliver on their promises of utility and convenience to foster long-term engagement and loyalty.

The empirical findings of this study reveal that perceived promotion is a key driver of continued intention to use food delivery apps. This corroborates previous research highlighting the influence of price-related factors on consumer behavior in this context (Agarwal & Sahu, 2022; Hong et al., 2021; Ramos, 2022; Zanetta et al., 2021). However, unlike studies where price was not a significant factor, this study suggests that users may not perceive the food price as a good deal due to additional delivery fees. This highlights the importance of promotional offers as extrinsic motivators for continued usage. In line with (Yao & Li, 2024) this study confirms the positive impact of promotions on food delivery apps usage.

Additionally, perceived time saving was identified as another significant extrinsic motivator for continued intention, particularly among employed individuals with limited time for food preparation or dining out (Hong et al., 2021). This finding aligns with previous research demonstrating the positive influence of time-saving orientation and benefits on consumer intention (Yao & Li, 2024) . The study extends this understanding to the FDAs context, confirming the importance of perceived time saving for consumers.

Furthermore, this study delved into the moderating effect of trust on the relationship between satisfaction and continuance intention. The findings suggest that trust acts as a catalyst, amplifying the positive impact of satisfaction on users' intention to continue using the food delivery app. In essence, when users have a high level of trust in the platform, their satisfaction becomes an even stronger predictor of their continued engagement (Soren & Chakraborty, 2024). This underscores the critical role of trust in fostering long-term loyalty and highlights the need for companies to prioritize trust-building initiatives alongside satisfaction-enhancing measures.

CONCLUSION

This research contributes to the growing body of knowledge on user behavior in food delivery applications by demonstrating the critical role of user confirmation, perceived usefulness, and service, system, and information quality in shaping user satisfaction and continuance intention. These findings align with the Information Systems Success Model and Expectation Confirmation Theory, further emphasizing the importance of meeting user expectations and delivering a seamless, enjoyable, and valuable user experience. The study's results highlight the multifaceted nature of user satisfaction in the context of food delivery apps. Beyond the functional aspects of service quality and system quality, perceived enjoyment and time-saving benefits also play significant roles in fostering user engagement and loyalty. This suggests that food delivery app providers must adopt a holistic approach to app development and management, addressing both the functional and hedonic aspects of the user experience. While this research offers valuable insights, it is not without limitations. The reliance on self-reported survey data may introduce biases, and the specific demographic and cultural context of the study may limit the generalizability of the findings. Future research could address these limitations by employing diverse methodologies and expanding the sample to include a wider range of users. Despite these limitations, the theoretical and practical implications of this study are significant. By confirming and extending existing theories on user behavior, this research contributes to a deeper understanding of the factors that drive user satisfaction and continuance intention in the context of food delivery applications. From a practical standpoint, this research provides actionable insights for food delivery app providers. It underscores the importance of prioritizing user satisfaction through continuous improvement in service quality, system functionality, and information accuracy. Moreover, it highlights the need to effectively communicate the app's benefits, focusing on convenience, time saving, and enjoyment, to enhance user engagement and loyalty. By fostering a culture of trust and transparency, food delivery app providers can further strengthen the relationship between user satisfaction and continued app use. In conclusion, this study offers a comprehensive and nuanced understanding of the factors influencing user behavior in food delivery applications. By addressing the identified

key drivers of user satisfaction and continuance intention, food delivery app providers can enhance their competitiveness, foster a loyal user base, and achieve sustained success in this rapidly evolving market.

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