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ORIGINAL

Factors that affecting the adoption of ride-hailing application: case of Indonesia

Factores que afectan la adopción de aplicaciones de viajes a petición: caso de Indonesia

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ABSTRACT

This study investigates the factors influencing user loyalty and sustained engagement with ride-hailing services, integrating the Expectation Confirmation Model (ECM) and the Technology Acceptance Model (TAM) into a novel framework. The objective is to examine the interrelationships among service quality, trust, perceived ease of use, perceived usefulness, user satisfaction, and continuation intention in the context of ride-hailing services. A quantitative approach was employed, utilizing survey data from 238 active ride-hailing users in Indonesia, analyzed using Partial Least Squares-Structural Equation Modelling (PLS-SEM). The analysis revealed that both service quality and trust significantly impact user satisfaction, which in turn strongly influences continuation intention. Notably, perceived ease of use and perceived usefulness were found to have no direct effect on continuation intention. Furthermore, user satisfaction fully mediates the effects of service quality and trust on continuation intention. These findings highlight the critical role of user satisfaction as a mediator, suggesting that ride-hailing service providers should prioritize enhancing service quality and trust over the development of new features to foster long-term user loyalty and sustained engagement.

Keywords: Service Quality; Trust; Satisfaction; Continuance Intention, Ride-Hailing Application.

RESUMEN

Este estudio investiga los factores que influyen en la lealtad del usuario y el compromiso sostenido con los servicios de transporte compartido, integrando el Modelo de Confirmación de Expectativas (ECM) y el Modelo de Aceptación de Tecnología (TAM) en un marco novedoso. El objetivo es examinar las interrelaciones entre la calidad del servicio, la confianza, la facilidad de uso percibida, la utilidad percibida, la satisfacción del usuario y la intención de continuación en el contexto de los servicios de transporte compartido. Se empleó un enfoque cuantitativo, utilizando datos de encuestas de 238 usuarios activos de transporte compartido en Indonesia, analizados mediante el Modelo de Ecuaciones Estructurales de Mínimos Cuadrados Parciales (PLS-SEM). El análisis reveló que tanto la calidad del servicio como la confianza impactan significativamente la satisfacción del usuario, lo que a su vez influye fuertemente en la intención de continuación. En particular, se encontró que la facilidad de uso percibida y la utilidad percibida no tenían un efecto directo en la intención de continuación. Además, la satisfacción del usuario media completamente los efectos de la calidad del servicio y la confianza en la intención de continuación. Estos hallazgos resaltan el papel fundamental de la satisfacción del usuario como mediador, lo que sugiere que los proveedores de servicios de transporte deberían priorizar la mejora de la calidad y la confianza del servicio por sobre el desarrollo de nuevas características para fomentar la lealtad del usuario a largo plazo y un compromiso sostenido.

Palabras clave: Atención al Cliente; Confianza; Gratificación; Perseverancia; Aplicaciones de Alquiler de Bicicletas.

INTRODUCTION

The sharing economy represents a transformative shift in traditional economic exchanges, enabling individuals to share services and resources through digital platforms. This phenomenon, characterized by peer-to-peer interactions and facilitated by technology, has transcended conventional industries, including accommodation, transportation, and professional services, fostering new business models that leverage underutilized resources.[1,2,3] By lowering transaction costs and enhancing access, platforms within the sharing economy have gained substantial traction, particularly in sectors such as travel and food services, where user convenience and cost-effectiveness are paramount.[2,3] By this measure, ride-hailing firms serve as models of the integration of the sharing economy into urban mobility solutions, providing users with prompt, cost-effective, and reliable transportation alternatives. However, challenges such as regulatory concerns anyanyd market competition persist, raising questions about the sustainability of these services as they continue to disrupt traditional taxi industries and evolve amid changing consumer preferences.[4,5] The rise of ride-hailing is not merely an innovation in transport but a pivotal aspect of the broader sharing economy narrative, reshaping our perspectives on ownership, access, and the interconnectivity of services in contemporary society.[6]

Ride-hailing services offer several advantages, including prompt access to transportation, lower pricing, and enhanced features like real-time tracking, cashless transactions, and user feedback systems.[2] These services can also reduce urban congestion and promote sustainability through shared rides.[4] Additionally, they often present lower pricing structures that are more appealing to cost-conscious consumers, increasing accessibility for a broader demographic.[5] However, challenges such as regulatory issues, safety concerns, and market competition must be addressed for long-term success.[1] Factors influencing long-term usage include service quality, trust, and user satisfaction. High-quality service, reliability, and positive ride experiences contribute to customer loyalty.[7,8] Trust in safety and reliability also encourages regular use.[9] Additionally, the ease of use and perceived benefits of ride-hailing apps, including digital payments and entertainment options, enhance their attractiveness.[10,12] Despite these benefits, maintaining service quality and user trust in a competitive market remains challenging.[13]

Previous research on ride-hailing services has primarily focused on developed countries, with little attention given to factors affecting long-term usage in developing countries like Indonesia.[12,14] For instance, in the United States, ride-hailing adoption among older adults is influenced by factors such as age, education, and smartphone ownership, with younger and more digitally connected seniors using the service more frequently.[15] Meanwhile, a study in China highlights the importance of trust in drivers, explicit costs like fare, and service quality in fostering user loyalty, where explicit costs actually enhance trust and loyalty, while implicit costs, such as waiting time, tend to reduce them.[16] Research highlights that service quality and trust are crucial for continued use of ride-hailing services, but there is limited exploration of how these factors interact in developing countries such as Indonesia. Moreover, the rising competition in Indonesia's ride-hailing market highlights challenges in user loyalty. While Gojek dominated with 3,73 million downloads between 2021 and 2023, competitors like Maxim (2,12 million downloads) and inDrive have shown significant growth, indicating that user loyalty can shift to platforms offering better services, pricing, or promotions. This underscores the need for strong retention strategies.[12,14] This reveals a gap in the literature, as existing research mostly addresses developed countries, overlooking the unique conditions in emerging markets like Indonesia.[17] Thus, there is a need for more research on how ride-hailing services operate in developing countries, where infrastructure, economic conditions, and consumer behaviors differ significantly.

This research makes significant contributions to the existing literature by integrating the Expectation Confirmation Model (ECM) and the Technology Acceptance Model (TAM) to create a comprehensive framework for understanding ride-hailing adoption and usage in Indonesia. TAM primarily focuses on the initial adoption stage, which is particularly relevant in Indonesia, where the penetration of ride-hailing apps is still expanding. This model helps to explain why Indonesian users, who may not be well-versed in technology, decide to adopt these services in the first place. On the other hand, ECM addresses the post-adoption stage, which is crucial for the ride-hailing industry in Indonesia, where various service providers are competing to retain users and foster long-term loyalty. Furthermore, this research introduces external variables, specifically service quality and trust, which enhance the model's robustness. The integration of these external variables is theoretically justified, as both serve as key antecedents to user satisfaction. In the highly competitive ride-hailing market in Indonesia, these factors are critical for differentiating services and building user loyalty. Trust addresses user concerns about safety and reliability, while service quality encompasses practical aspects such as punctuality and driver behavior. By incorporating these variables, the research model becomes more comprehensive and

relevant, offering a more holistic understanding of the dynamics at play in the Indonesian ride-hailing market.

This paper aims to identify key factors influencing technology use behavior, with a particular focus on ride-hailing applications in Indonesia. The proposed model, which integrates the Expectation Confirmation Model (ECM)[18,19] and the Technology Acceptance Model (TAM),[20,21,22] includes six key constructs: Service Quality, Trust, Perceived Ease of Use, Perceived Usefulness, User Satisfaction, and Continuance Intention (figure 1). The model argues that Service Quality and Trust are key antecedents that influence User Satisfaction.[23,24] This satisfaction, in turn, strongly affects Continuance Intention. While Perceived Ease of Use and Perceived Usefulness are important factors in TAM, this study specifically focuses on their role as predictors of satisfaction, rather than a direct influence on continuance intention.[15] Empirical findings have demonstrated the significant role of Service Quality in shaping user satisfaction across various contexts.[16,25] Similarly, Trust has been proven to be a critical factor in digital transactions, especially in the ride-hailing industry where users rely on safe and reliable interactions.[26,27] The relationship between User Satisfaction and Continuance Intention is also well-supported in ECM literature,[28,29] which posits that satisfaction is the primary predictor of sustained usage behavior. Moreover, the perceived ease of use of ride-hailing apps enhances their perceived usefulness, as users find them more beneficial when easy to navigate.[30,31,32] Intuitive interfaces and efficient algorithms boost satisfaction and retention by making users more likely to continue using the service.[33,34,35]

Based on this theoretical foundation, this study proposes the following hypotheses:

- H1: Service Quality has a significant influence on User Satisfaction.
- H2: Trust has a significant influence on User Satisfaction.
- H3: Perceived Ease of Use has a significant influence on User Satisfaction.
- H4: Perceived Usefulness has a significant influence on User Satisfaction.
- H5: User Satisfaction has a significant influence on Continuance Intention.

METHOD

Research Design

This study employs a descriptive quantitative research design, using a survey-based approach to examine the factors influencing user satisfaction and continued usage intention of ride-hailing applications in Indonesia. Data collection took place between December and February 2024, focusing on urban areas across Indonesia where ride-hailing services are commonly used. The target population consists of active ride-hailing users in Indonesia, and participants were selected using a convenience sampling method, which involved inviting users who were easily reachable and willing to complete the survey. The data for this study were collected from 238 regular users of Indonesian ride-hailing apps. Following the 10:1 rule for PLS-SEM sample size determination,[36] which suggests at least ten times the number of metrics for each latent variable or paths leading to a latent variable, the minimum recommended sample size is 40. Given that the latent variable with the most indicators—service quality—has four indicators, the 238 respondents in this study meet the criteria for robust statistical analysis and are sufficient to provide valuable insights into ride-hailing app usage.[37]

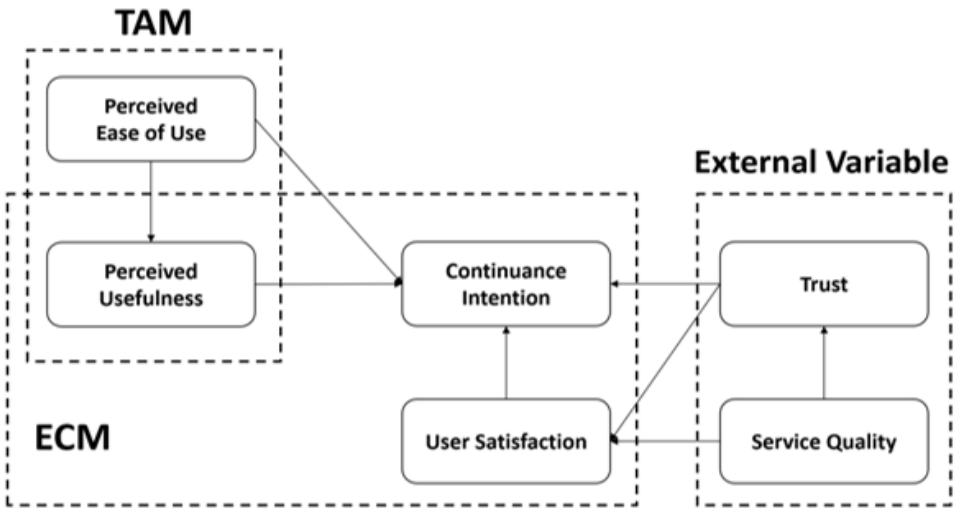

Figure 1. Research Model

Research Instruments

In this study, a questionnaire that was developed using indicators from research variables, which is disseminated through an online questionnaire platform to facilitate access and distribution. The questionnaire was distributed in the form of a Google Forms link for ease of access and completion. The questionnaire

consists of two parts. The first part gathered questions related to respondent demographics which include age, gender, how often people use ride-sharing services on a weekly basis, and the type of service used most often. Each question in this section was answered by the respondent based on the options provided. The second part assessed key variables—Service Quality, Trust, User Satisfaction, and Continuance Intention—using validated indicators from previous research, as can be seen in table 1.

The statements in the questionnaire were compiled based on previous research to ensure content validity. For example, the items of service quality variable referred to previous studies,[21,38] user satisfaction items based on ECM were quoted from prior research,[17,21,38] trust items were based on some researchers,[37,38] the items of perceived usefulness and perceived ease of use, based on TAM, referred to previous studies,[16,17,18,39] and continuance intention items were based on previous research conducted by [17,38,39]. Each statement item will be answered using a five-point Likert scale, with the following answer options: (1) "Strongly Disagree", (2) "Disagree", (3) "Neutral", (4) "Agree", and (5) "Strongly Agree".

Table 1. Research Instrument

Variable	Items	Sources
Service quality		
SQ1	Ride-hailing service provided prompt response to my request	[22]
SQ2	Ride-Hailing driver arrives on time	[38]
SQ3	I feel that Ride-Hailing's service is reliable because the drivers are polite and give a sense of security	[21]
SQ4	The Ride-Hailing app is effective in handling my complaints	[21]
User Satisfaction		
US1	Overall, I am satisfied with my experience using Ride-Hailing because of the good service in meeting my needs	[17,21,38]
US2	The use of Ride-Hailing services met my expectations	[21]
US3	Ride-Hailing drivers can understand what I want easily	[21]
Trust		
TR1	I believe in transacting using the Ride-Hailing application	[21]
TR2	The Ride-Hailing app can be trusted in protecting personal data	[38]
TR3	I believe that Ride-Hailing drivers can respond well and professionally to my complaints	[21]
Perceived Usefulness		
PU1	The Ride-Hailing app makes it easier for me in my daily activities	[18]
PU2	Ride-Hailing meets my transportation needs	[18]
PU3	Overall, I find Ride-Hailing beneficial in my life	[16,17,18]
Perceived Ease of Use		
PEOU1	Easy for me to use the Ride-Hailing app	[18]
PEOU2	Menus and features in the Ride-Hailing app are easy to follow	[39]
PEOU3	Overall, the Ride-Hailing app is easy to use	[18]
Continuance Intention		
CI1	I intend to continue using Ride-Hailing even though there are other similar apps	[17]
CI2	In the future, I will consider using Ride-Hailing on an ongoing basis	[39]
CI3	I intend to continue using the Ride-Hailing app rather than stop using it.	[17,38]

Data Analysis

Data were collected through an online survey platform (Google Forms), ensuring accessibility and ease of distribution. After the data was collected, the first stage was data processing, which included checking the

completeness of 239 questionnaires that had been filled out by respondents. The checked data is inserted into Ms. Excel files for easy further analysis. The data cleansing process was carried out to identify and remove invalid responses, such as incomplete questionnaires or having inconsistent answer patterns. After the cleanup, only 238 questionnaires were selected for the investigation based on their reliability and validity.

Furthermore, the Partial Least Squares - Structural Equation Modelling (PLS-SEM) method was used for data analysis because it effectively tests the links between the model's complex latent variables and numerous connected elements.[36] PLS-SEM allows testing of correlations between variables, both directly and indirectly as well as evaluating construct validity and measurement reliability. PLS-SEM was used because it has the ability to solve encountered issues with dispersed data and small sample sizes.[40] The analysis phase comprises two components: initially, a measurement model to assess the validity and reliability of the instrument, followed by a structural model to evaluate the research hypothesis and quantify the strength and significance of the relationships among variables. The measurement model evaluation assessed the reliability and convergent validity of the study's six constructs. Reliability was determined using composite reliability, while convergent validity was evaluated through factor loadings and the average variance extracted (AVE). According to prior guidelines,[36] factor loadings should exceed 0,7, with both composite reliability (CR) and AVE exceeding 0,5 for dependability. The study applied the Fornell-Larcker criterion to ensure that latent variables showed stronger relationships with their own indicators than with other latent variables. Discriminant validity is achieved when the square root of AVE for each latent variable is greater than its correlations with other variables.[36] In the structural model evaluation, path analysis and R-squared (R^2) values were used to assess the significance of the hypothesized relationships. R^2 values, ranging from 0 to 1, indicate the model's predictive accuracy, with higher values reflecting a better explanatory power of the model for the dependent variable. To test the six hypotheses, each hypothesis must be supported by a significant path coefficient (ß), T-statistic, and P-value. The path coefficient measures how strongly the two concepts are related to one another.[36] A path coefficient is considered significant if its p-value is less than 0,05.T-Statistics ought to also be larger than 1,96.[42]

Ethical considerations were strictly adhered to throughout the study: participation was voluntary, all responses were kept anonymous, and participants were informed about the purpose of the research, ensuring transparency and confidentiality. No conflicts of interest were reported.

RESULTS

Table 2. Respondent Demographics

	Number of Respondents	%
Age		
<20 years old	35	14,6
21-30 years old	38	15,9
31-40 years old	70	29,3
41-50 years old	84	35,1
>50 years old	12	5,1
Gender		
Man	90	37,7
Woman	149	62,3
Frequency of Use of Ride-Hailing per Week		
Under 1 time	53	22,2
1-3 times	106	44,4
4-6 times	36	15,1
More than 6 times	44	18,4
The Most Used Ride-Hailing Services		
GoRide	125	52,3
GoCar	17	7,1
GoFood	80	33,5
GoSend	10	4,18
Other	7	2,9

The respondent demographic profile is displayed in table 2. which includes age, gender, frequency of use of Ride-Hailing services per week, and the type of service used most often. Nearly all ride-sharing service users come from the productive age group of 31-40 years (29,3 %) and 41-50 years (35,1 %), with women dominating the user demographic (62,3 %). The frequency of use is dominated by the category 1-3 times per week (44,4 %), and GoRide is the most popular service among respondents (52,3 %), with the main preference being motorcycle transportation services.

Measurement Model

Table 3 shows that all three variables (CR, AVE, and factor loading) are more than 0,7. There was a satisfactory level of agreement between the convergent validity and reliability test results.

Table 3. Convergent Validity and Reliability Test Result

Variable	Items	Convergent Validity		Reliability
		Outer Loading	Average Variance Extracted	
Service Quality	SQ1	0,843	0,694	VALID
	SQ2	0,825		VALID
	SQ3	0,817		VALID
	SQ4	0,846		VALID
User Satisfaction	US1	0,909	0,838	VALID
	US2	0,948		VALID
	US3	0,889		VALID
Trust	TR1	0,863	0,780	VALID
	TR2	0,897		VALID
	TR3	0,890		VALID
Perceived Usefulness	PU1	0,933	0,863	VALID
	PU2	0,938		VALID
	PU3	0,915		VALID
Perceived Ease of Use	PEOU1	0,951	0,918	VALID
	PEOU2	0,958		VALID
	PEOU3	0,966		VALID
Continuance Intention	CI1	0,872	0,821	VALID
	CI2	0,920		VALID
	CI3	0,925		VALID

Table 4. Discriminating Validity Analysis

Latent Variable	PU	PEOU	TR	US	SQ	CI
Perceived Usefulness	0,929					
Perceived Ease of Use	0,802	0,959				
Trust	0,735	0,686	0,883			
User Satisfaction	0,824	0,772	0,793	0,916		
Service Quality	0,745	0,692	0,776	0,825	0,833	
Continuance Intention	0,691	0,627	0,672	0,758	0,728	0,906

The discriminant validity results is displayed in table 4. Each variable in the model is established when its square root (diagonal) is higher than the value of the square root of all of the variables in the same row or column. Table 4 shows that User Satisfaction (US) has a diagonal value of 0,916, which is greater than its correlation with other variables (e.g., 0,824 with PU or 0,772 with PEOU). Every other latent variable is no different.

Structural Model

For US, SQ and TR accounted for 73,9 % of the variation, and Table 5 demonstrates that SQ can explain TR roughly 60,2 %. In contrast, PU, TR, PEOU, and US account for 59,6 % of CI. In addition, PEOU explained 64,3 % of PU variation. A good model must have R^2 greater than 26 % (36) thus, the model demonstrates strong predictive power. Indicative of strong model explanatory power for all constructs, the endogenous construct has an R^2 value higher than the specified value.

Table 5. The Value of R^2 (Determination Coefficient)

Endogent Latent Variable	Perceived Usefulness (PU)	Trust (TR)	User Satisfaction (US)	Continuance Intention to Use (CI)
R^2	0,643	0,602	0,739	0,596

What follows are the findings of hypothesis testing of direct and indirect relationships can be presented in table 6. The direct relationship test indicates that the SQ significantly impacts TR (ß=0,776, T-statistic=18,420, p<0,05) and US (ß=0,526, T-stat=6,661, p<0,05). TR significantly influenced US satisfaction (ß=0,385, T-stat=4,981, p<0,05). In addition, SAT significantly affects CI (ß=0,493, T-stat=4,985, p<0,05). PEOU has significant influence on PU (ß=0,802, T-stat=17,219, p<0,05). Nevertheless, there was no discernible effect based on our findings of PU on CI (ß=0,162, T-statistic=1,887, p>0,05), PEOU have no significant impact on CI (ß=0,011, T-statistic=0,125, p>0,05) and TR does not have significant impact on CI (ß=0,155, T-stat=1,748, p>0,05). Indirect relationships suggest that US may mediate the relationship between SQ and CI (ß=0,260, T-stat=3,890, p<0,05) and the relationship between TR and CI (ß=0,190, T-stat=3,587, p<0,05). Meanwhile, TR could not mediate the relationship between SQ and CI (ß=0,120, T-stat=1,685, p>0,05). If further observed, it is obtained that SQ among all US variables is the the strongest predictor of TR. In addition, our result reveals that only US has significant impact on CI in this study.

Table 6. Direct and Indirect Hypothesis Testing Results

Path	Hypothesis	Original sample (O)	T-statistic (|O/STDEV|)	P values	Result
Direct Relationship					
SQ → TR	H1	0,776	18,420	0,000	Significant
SQ → US	H2	0,526	6,661	0,000	Significant
TR → US	H3	0,385	4,981	0,000	Significant
TR → CI	H4	0,155	1,748	0,081	No Significant
US → CI	H5	0,493	4,985	0,000	Significant
PU → CI	H6	0,162	1,887	0,059	No Significant
PEOU → PU	H7	0,802	17,219	0,000	Significant
PEOU → CI	H8	0,011	0,125	0,900	No Significant
Indirect Relationship					
SQ → US → CI	H9	0,260	3,890	0,000	Significant
SQ → TR → CI	H10	0,120	1,685	0,092	No Significant
TR → US → CI	H11	0,190	3,587	0,000	Significant

DISCUSSION

This study sought to identify the key factors that influenced Indonesians' intentions to continue using ride-hailing apps. The factors examined included service quality, trust, user satisfaction, perceived ease of use, and perceived usefulness based on integrated TAM and ECM. Based on the results, certain theoretical frameworks were validated, while others were not supported, as detailed below:

The impact of Service Quality on Trust and User Satisfaction

Service Quality was found to significantly impact both Trust and User Satisfaction, highlighting that when ride-hailing services consistently deliver high-quality experiences, users are more likely to trust the platform and feel satisfied with their experience. Previous research supports this, indicating that factors such as reliability, responsiveness, and overall user experience can greatly enhance customer satisfaction and trust in ride-hailing services.[1,10,43] For example, prompt driver arrival, polite drivers, and effective complaint handling contribute

directly to a positive perception of the service. Consistent studies have shown that improving service quality not only boosts user satisfaction but also fosters a loyal customer base.[7,12] This is particularly relevant in competitive markets like Indonesia, where quick wait times and courteous drivers are essential, especially with dominant players like Gojek and Grab. In such a competitive landscape, maintaining high service standards becomes crucial for ride-hailing companies aiming to thrive, as consistent service quality strengthens trust and user satisfaction, which are vital for long-term success.

The impact of Trust on User Satisfaction and Continuance Intention

Trust was found to have a significant impact on user satisfaction, suggesting that users who perceive the ride-hailing service as secure and dependable tend to be happier with their overall experience. Previous studies support this, showing that high levels of trust are crucial for user satisfaction, especially when users believe the service is safe and reliable.[3,10,44] However, the study did not find a direct significant impact of Trust on Continuance Intention. This implies that while trust plays a vital role in building satisfaction, its effect on whether users continue using the service in the long term is mediated by their satisfaction.[45] A logical reason for this is that trust provides the foundation, but it is the consistent positive experience (leading to satisfaction) that truly motivates ongoing engagement. Users might trust the platform, but if their experiences are consistently unsatisfactory, they may stop using it.[26] Therefore, studies emphasize that managing user experience to ensure satisfaction is crucial, as it forms the critical link between initial trust and the willingness to continue using the service. Furthermore, our study shows that a lack of trust can hinder new technology adoption, but once trust is established, satisfaction becomes the immediate driver for continuation. In the Indonesian market, trust in platforms like Gojek and Grab is essential, yet user satisfaction plays a more prominent role in driving long-term use. Trust alone is insufficient without positive, real-world experiences that reinforce users' decision to continue using the service.

The impact of User Satisfaction on Continuance Intention

User Satisfaction significantly affects Continuance Intention, strongly supporting the idea that when users are satisfied with their ride-hailing experience, they are much more likely to continue using the app in the future. This finding is consistent with numerous studies highlighting the strong correlation between user satisfaction and intended loyalty, particularly in services like ride-hailing.[8,12,43] For example, Ramadhan et al. emphasize that user satisfaction directly influences the intention to continue using ride-hailing applications, underscoring its critical role in fostering user loyalty.[12] Research shows that customers who report high satisfaction levels often develop stronger loyalty and a greater intention to reuse services.[46,47] For ride-hailing, this emphasizes the importance of consistently delivering excellent service experiences, as they nurture loyalty and long-term use. In Indonesia, user satisfaction is highly influenced by factors such as convenience, pricing, and the additional services provided by super-applications like Gojek and Grab. Satisfied users are more likely to continue using these services over time.

The impact of Perceived Ease of Use on Perceived Usefulness

Perceived Ease of Use (PEOU) significantly influences Perceived Usefulness (PU) within the context of the Technology Acceptance Model (TAM) as applied to ride-hailing applications. When users find a ride-hailing app easy to operate and navigate, they are more likely to recognize its practical benefits, such as convenience and transportation efficiency.[10,48] This relationship is supported by various studies showing that an intuitive and user-friendly interface enhances the perceived utility of an application.[5,10] In Indonesia, ease of use is a key factor in attracting new users. Applications like Gojek and Grab, which offer simple and intuitive interfaces, enhance the perception of the app's benefits in terms of convenience and transportation efficiency, making them more appealing to users.

The impact of Perceived Ease of Use and Perceived Usefulness on Continuance Intention

While both Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) significantly contribute to user adoption of ride-hailing services, their direct impact on Continuance Intention appears less pronounced. In markets like Indonesia, factors such as PEOU and PU may become baseline expectations rather than key drivers for continued use.[49,50] Users typically expect ride-hailing applications to be easy to use and functionally beneficial, diminishing the impact of these factors once the novelty of the technology fades.[30,50] Therefore, while initial adoption may be influenced by these constructs, sustained usage is more heavily dependent on variables such as user experience and overall satisfaction with the service.[8,51] This aligns with existing literature, which suggests that while PEOU and PU are critical for the initial acceptance of technology, their role diminishes as users seek ongoing engagement based on real-world experiences, which play a larger role in shaping long-term usage intentions.[30,50] In the context of Indonesia, after initial adoption, factors like service quality, user satisfaction, and the overall experience with the app become far more significant in driving continued use, as the novelty of the technology diminishes.

User Satisfaction mediates the effect of Service Quality and Trust on Continuance Intention

Mediation analysis in the context of ride-hailing companies shows that user satisfaction plays a key role in mediating the relationships between service quality, trust, and continuation intention. Both trust and service quality significantly influence continuation intention, but this impact is primarily driven through user satisfaction. Therefore, improving service quality and building trust are essential for fostering user satisfaction and ensuring long-term use of the service.[10,43] Positive experiences, such as timely pickups, professional driver conduct, and service reliability, contribute greatly to heightened satisfaction, which in turn encourages users to continue using the service.[50,52] While trust is vital, it must be complemented by consistent high-quality service to prevent user dissatisfaction and churn.[10] A platform that is trusted but fails to deliver on service quality can still lead to a decline in user retention.[53] In Indonesia's highly competitive market, where dominant players like Gojek and Grab prevail, it is crucial for companies to focus on delivering consistently positive experiences. This is key to maintaining user satisfaction and ensuring continued engagement with the service.

The findings of this study expand the existing literature by explaining how factors such as service quality, user trust, and user satisfaction play a role in the transition from initial adoption to continued use of ride-hailing apps. While many previous studies have focused on early technology adoption, our research shows that user satisfaction is key to ensuring continued use, enriching the Technology Acceptance Model (TAM) and Expectation-Confirmation Model (ECM) by emphasizing the crucial role of positive user experiences. We also found that factors such as perceived ease of use and perceived usefulness serve more as baseline expectations after initial adoption, and that continued use is more influenced by experiential factors, such as service quality and trust. Thus, the contribution of this study provides new insights that refine and enrich the understanding of technology adoption dynamics in the context of ride-hailing apps, particularly in emerging markets such as Indonesia.

This study has several limitations that should be acknowledged. First, the cross-sectional design restricts the ability to track changes in user behavior over time or establish causal relationships. Collecting data at a single point in time prevented the capture of the evolving dynamics of sustainable intentions and the long-term effects of the identified factors. Second, the R-square value for continuance intention (CI) indicates that the model explains only 59,6 % of the variance, suggesting the presence of other unexamined factors that also influence continuance intention. Third, the use of convenience sampling limits the generalizability of the findings, as the sample may not accurately represent the broader user population. To address these limitations, future research could adopt a longitudinal design to track behavioral changes, explore additional factors such as socio-economic influences or regulatory impacts, and conduct comparative studies across different ride-hailing platforms or regions to deepen the insights.

CONCLUSIONS

This study, integrating the Expectation Confirmation Model (ECM) and Technology Acceptance Model (TAM), explores the key factors influencing users' intention to continue using ride-hailing apps. The findings underscore the central role of user satisfaction, which mediates the relationship between trust, service quality, and long-term usage intentions. Service quality and trust significantly influence satisfaction, while satisfaction itself emerges as the critical driver of continued use. The research highlights that focusing on enhancing service quality and fostering trust is more effective for driving loyalty and sustained engagement than merely introducing new features or improving usability.

Additionally, the study contributes to the literature by providing new insights into continuance intentions and user satisfaction within the context of ride-hailing in developing countries. It also demonstrates how ECM and TAM can be applied to understand post-adoption behaviors in the sharing economy, expanding the scope of consumer interactions with digital platforms beyond Western contexts. The findings offer valuable implications for policymakers and businesses seeking to enhance user loyalty and growth in emerging markets. This suggest that ride-hailing companies should prioritize delivering consistent, high-quality service and building user trust to foster long-term customer loyalty and ensure sustainable growth in competitive landscape.

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