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Analysis of the Unified Theory of Acceptance and Use of Technology 3 (Utaut 3) Model on Users' Intention to Use the Linkaja Application in Malang City

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KEYWORDS
UTAUT 3, User Interest, LinkAja

ABSTRACT
The purpose of this study is to apply the Unified Theory of Acceptance and Use of Technology 3 (UTAUT 3) model to examine user interest in the LinkAja application in Malang City. Twelve factors—performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, and personal innovation in IT—were identified as influencing user interest. The statistical method used was descriptive statistics with the SmartPLS 4 tool. Researchers surveyed 140 respondents in Malang City who responded to the distributed questionnaire. The findings showed that behavioral intention was not significantly influenced by factors such as performance expectancy, effort expectancy, social influence, facilitating conditions, price value, or personal innovation in IT. In contrast, application usage behavior was significantly influenced by personal innovation in IT, indicating that more creative individuals were more likely to use the application. This study provides suggestions to LinkAja application developers on how to improve the application's functionality and usability while increasing the social impact on community acceptance.

INTRODUCTION

The rapid growth of financial technology (fintech) has transformed the way people meet their financial needs, particularly with the increasing adoption of digital transactions. Indonesia, as one of the largest digital markets in Southeast Asia, has entered the era of the Fourth Industrial Revolution, characterized by the acceleration of technological innovations and the widespread use of digital applications in everyday life. One of the most prominent changes is the rise of electronic wallet (e-wallet) applications, which have become an essential tool for facilitating cashless transactions, especially after the COVID-19 pandemic that encouraged a shift toward contactless payments (Eliza & Fitria, 2023).

LinkAja stands out as one of the most widely used e-wallet applications in Indonesia, distinguishing itself as the only platform supported by a state-owned enterprise. The application was officially developed by PT Fintek Karya Nusantara (Finarya) on January 21, 2019, with collaboration from major entities such as Telkomsel, Bank Mandiri, Bank Negara Indonesia (BNI), Bank Rakyat Indonesia (BRI), Bank Tabungan Negara (BTN), Pertamina, Asuransi

Jiwasraya, and Danareksa (Hafizh et al., 2024). Verified by Bank Indonesia, LinkAja represents a strategic initiative to strengthen national digital finance infrastructure while promoting financial inclusion. In the context of Malang City, where digital adoption is growing but many users are still adjusting to new financial technologies, understanding user interest and behavior toward LinkAja provides valuable insights into the dynamics of fintech adoption at the local level.

The researchers chose Malang City as the research area because, spatially, according to data from the Malang City Central Statistics Agency, Batu City ranked highest in terms of the GRDP growth rate of regencies/cities in East Java in 2023, with a growth percentage of 6.19%. In second place is Sidoarjo Regency, which recorded a GRDP growth rate of 6.16% (Provinsi Jawa Timur, 2024). Malang City is among the top three regencies/cities in East Java. Malang City's GRDP growth rate of 6.07% in 2023 data places it in third place. This demonstrates Malang City's ability to manage its economy to the point where it can be considered one of the major cities in East Java Province. East Java's economy also ranks second in Indonesia's GRDP, with a value of 2,953,546.98 billion rupiah, behind Jakarta, demonstrating East Java's significant role in developing the Indonesian economy.

This research offers novelty by applying a more comprehensive UTAUT 3 model, focusing on the specific context of Malang City, and analyzing the differences between behavioral intentions and LinkAja app usage behavior. The urgency of this research emerged after the COVID-19 pandemic, where e-wallet adoption has become crucial, especially in non-metropolitan areas like Malang, which face unique challenges compared to other cities. Each of the eight iterations of the UTAUT model for IT acceptance has been refined. Therefore, the purpose of this study is to determine how e-wallet users generally feel about the LinkAja app specifically.

Previous research has shown that variables in the UTAUT model have a significant influence on user intentions and behavior in various technological contexts. Performance Expectancy has been shown to positively contribute to Behavioral Intention (Akbar, 2023). Effort Expectancy also has a significant influence, with the same research showing that ease of use increases adoption intention. Social Influence has a positive impact on behavioral intention (Al Fatah et al., 2023). Facilitating Conditions contribute to Use Behavior, as evidenced by previous research (Maulani & Handayani, 2023). Hedonic Motivation, which suggests that enjoyment in using technology increases intention, has also been recognized in previous research (Romadona Putra et al., 2022). Price Value has a positive influence on Behavioral Intention, as demonstrated in previous research (Kamalasena & Sirisena, 2021). Habit, which reflects automatic behavior based on previous experience, has been shown to be significant in previous research (Maulani & Handayani, 2023). The Personal Innovativeness in IT variable contributes to behavioral intention, with support from previous research (Kamalasena & Sirisena, 2021).

The purpose of this research is to analyze the level of interest and behavioral patterns of LinkAja users in Malang City as part of the broader adoption of financial technology in Indonesia. The findings of this study are beneficial both theoretically and practically: theoretically, they enrich the academic discourse on fintech adoption in Indonesia; practically, they provide insights for policymakers, financial service providers, and developers of LinkAja

to improve service quality, enhance user trust, and accelerate digital financial inclusion in society.

METHOD

To understand the elements influencing user interest in using this program, this study employed a descriptive strategy to analyze the available data and facts. The researcher employed a purposive sampling technique to obtain a sample or respondents who met specific criteria according to the research needs. The researcher also employed the Slovin formula, resulting in a minimum of 100 respondents from the Malang City community who were also LinkAja app users. They were surveyed using a questionnaire to provide the necessary data with a 95% confidence level and a 5% margin of error.

The researcher decided to sample 140 respondents to facilitate data analysis and processing, considering that this number still provided a fairly representative picture. The use of the Slovin formula was preferable to the Hair reference for this study because it provides a simpler and more direct approach to determining sample size based on a known population and considering the desired margin of error (Zahriyah et al., 2024).

This research used the SmartPLS 4 application as a statistical tool for data analysis. SmartPLS allows researchers to conduct Structural Equation Modeling (SEM) analysis, which is very useful for examining the relationships between variables in the UTAUT 3 model. Using SmartPLS, researchers can evaluate the validity and reliability of instruments and test proposed hypotheses.

Table 1. Variable Operationalization

Variable	Indicator	Reference
Performance Expectancy	*Perceived Usefulness*	[21][22]
	Extrinsic Motivation	
	Job Fit	
	Relative Advantage	
	Outcome Expectations	
Effort Expectancy	*Perceived Ease of Use*	[23]
	Complexity	
	Ease of Use	
Social Influence	*Subjective Norm*	[24][25]
	Social Factors	
	Image	
Facilitating Condition	*Perceived Behavioral Control*	[18][26]
	Facilitating Conditions	
	Compatibility	
Hedonic Motivation	*Fun*	[17][27]
	Enjoyment	
	Entertain	
Price Value	*Perceived Nonmonetary Price*	[28]
	Reasonable	
	Worth	
Habit	*Individual Experience*	[12]
	Addicted	
	Must	
Personal Innovativeness in IT	*Time of Adoption*	[12]
	Willingness to Change	
	Risk-Taking	

Variable	Indicator	Reference
Behavioral Intention	*Intention*	[29]
	Continuation	
Use Behavior	*Depth of Use*	[30]
	Breadth of Use	

RESULTS AND DISCUSSIONS

Researchers distributed questionnaires to residents of Malang City who met the criteria and obtained 140 respondents. From the distributed questionnaires, researchers obtained the following responses:

Table 2. Respondent Categories

Respondent Category	Description	Number of Respondents	Percentage (%)
Gender	Male	53	38%
	Female	87	62%
Age	15 – 25 years	46	33%
	26 – 35 years	81	58%
	36 – 45 years	13	9%
Profession	State-Owned Enterprise Employee (BUMN)	69	49%
	Private Employee	32	23%
	Student	15	11%
	Civil Servant	13	9%
	Entrepreneur	8	6%
	Housewife	3	2%

Source: Google Form Questionnaire Data Processing

Validity and Reliability Testing

Table 2 shows that all latent variables have outer model values greater than 0.70, thus declaring them valid. Meanwhile, Table 3 shows that all variables meet the criteria and are deemed reliable.

Table 3. Validity Testing

Variable Latency	Outer Model Value	Conclusion
Performance Expectancy	>0,70	Valid
Effort Expectancy	>0,70	Valid
Social Influence	>0,70	Valid
Facilitating Condition	>0,70	Valid
Hedonic Motivation	>0,70	Valid
Price Value	>0,70	Valid
Habit	>0,70	Valid
Personal Innovativeness in IT	>0,70	Valid
Behavioral Intention	>0,70	Valid
Use Behavior	>0,70	Valid

Source: SmartPLS 4 Data Processing

Table 4. Data Reliability Test

Laten Variable	*Composite Reliability*	Critical Value	Conclusion
Performance Expectancy	0,951	>0,70	Reliable
Effort Expectancy	0,950	>0,70	Reliable
Social Influence	0,933	>0,70	Reliable
Facilitating Condition	0,955	>0,70	Reliable

Laten Variable	*Composite Reliability*	Critical Value	Conclusion
Hedonic Motivation	0,969	>0,70	Reliable
Price Value	0,965	>0,70	Reliable
Habit	0,968	>0,70	Reliable
Personal Innovativeness in IT	0,968	>0,70	Reliable
Behavioral Intention	0,972	>0,70	Reliable
Use Behavior	0,974	>0,70	Reliable

Source: SmartPLS 4 Data Processing

Outer Model Testing

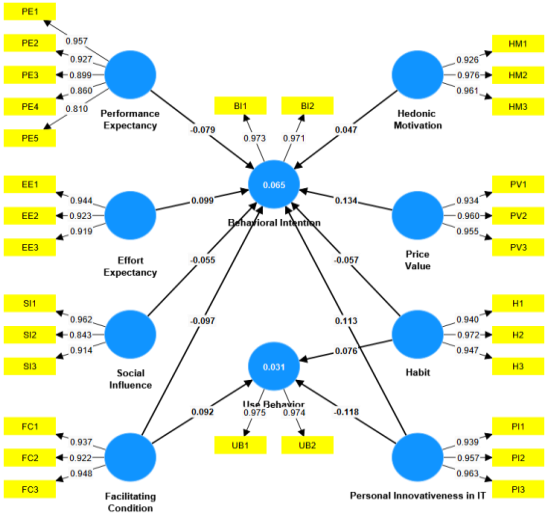

Figure 1. Outer Structural Equation Modeling (SEM)
Source: SmartPLS 4 Data Processing

Hypothesis Test Results

Table 5. Hypothesis Test Results

Hypothesis	P-Value	Testing Condition	Conclusion
H1: PE -> BI	0.287	P Value > 0.05	H1 Rejected
H2: EE -> BI	0.151	P Value > 0.05	H2 Rejected
H3: SI -> BI	0.293	P Value > 0.05	H3 Rejected
H4: FC -> BI	0.144	P Value > 0.05	H4 Rejected
H5: FC -> UB	0.175	P Value > 0.05	H5 Rejected
H6: HM -> BI	0.339	P Value > 0.05	H6 Rejected
H7: PV -> BI	0.070	P Value > 0.05	H7 Rejected
H8: H -> BI	0.279	P Value > 0.05	H8 Rejected
H9: H -> UB	0.190	P Value > 0.05	H9 Rejected
H10: PI -> BI	0.083	P Value > 0.05	H10 Rejected
H11: PI -> UB	0.035	P Value < 0.05	H11 Accepted
H12: BI -> UB	0.324	P Value > 0.05	H12 Rejected

Source: SmartPLS 4 Data Processing

H1: Performance Expectancy does not significantly influence Behavioral Intention (p-value = 0.287), indicating that users do not perceive improved performance from the LinkAja app. This aligns with previous research showing that performance expectancy does not significantly influence behavioral intention (Nainggolan et al., 2024). In other words, in this

hypothesis, the researchers found that although performance expectancy should motivate users to use the app, in this context, users did not perceive sufficient benefits to drive their intention.

H2: Effort Expectancy also does not significantly influence Behavioral Intention (p-value = 0.151), indicating that users find the app difficult to use. This aligns with previous research showing that effort expectancy does not significantly influence behavioral intention (Kurniawan et al., 2025). Inadequate user experience in terms of ease of use may be a factor inhibiting their intention to use the app more actively.

H3: Social Influence does not significantly influence Behavioral Intention (p-value = 0.293), indicating a lack of social support for using the app. This is in line with previous research showing that social influence does not significantly influence behavioral intention (Nainggolan et al., 2024). According to the researchers, this occurs because the influence of the social environment, such as friends or family, is not strong enough to motivate users. Users may not receive sufficient support or recommendations from those closest to them.

H4: Facilitating Conditions do not significantly influence Behavioral Intention (p-value = 0.144), indicating that the existing infrastructure and support are inadequate to encourage application use. This is in line with previous research showing that facilitating conditions do not significantly influence behavioral intention (Nainggolan et al., 2024). According to the researchers, this indicates that the existing infrastructure and support, such as internet access and other supporting facilities, are inadequate to encourage users to use the application.

H5: Facilitating Conditions also do not significantly influence Use Behavior (p-value = 0.175), indicating that users do not feel optimally supported in using the application. This is in line with previous research showing that facilitating conditions do not significantly influence use behavior. According to the researchers, this indicates that despite the presence of several facilitating conditions, users still do not feel optimally supported in using the application, resulting in low frequency of use of the LinkAja application (Nainggolan et al., 2024).

H6: Hedonic motivation does not significantly influence behavioral intention (p-value = 0.339), indicating that users' habitual use of the application is not yet strong enough to drive their intention. This aligns with previous research showing that hedonic motivation does not significantly influence behavioral intention [13]. According to the researchers, this indicates that users do not experience sufficient pleasure or satisfaction when using the LinkAja application, so their motivation to use the application from a hedonic perspective is not strong enough to increase their intention.

H6: Hedonic motivation does not significantly influence behavioral intention (p-value = 0.339), indicating that users' habitual use of the application is not yet strong enough to drive their intention. This aligns with previous research showing that hedonic motivation does not significantly influence behavioral intention (Maharani & Meiranto, 2024). According to the researchers, this indicates that users do not experience sufficient pleasure or satisfaction when using the LinkAja application, so their motivation to use the application from a hedonic perspective is not strong enough to increase their intention.

H7: Price value does not significantly influence behavioral intention (p-value = 0.07), indicating that users' habitual use of the application is not yet strong enough to drive their intention. This aligns with previous research showing that price value does not significantly

influence usage behavior (Kusuma Wardana, 2023). According to the researchers, this indicates that users weigh the value they receive from the LinkAja application against the costs incurred.

H8: Habit also does not have a significant effect on Behavioral Intention (p-value = 0.279). This indicates that users' habits in using the application are not yet strong enough to drive their intention to continue using this application. This is in line with previous research which shows that habits do not have a significant effect on use behavior (Kusuma Wardana, 2023). Users may not be familiar with the LinkAja application, so their habits in using this application have not yet formed well. According to researchers, this occurs because users' habits in using the application are not yet strong enough to drive their intentions.

H9: Habit also has no significant effect on Use Behavior (p-value = 0.190), indicating that users are not motivated to make regular transactions using the application. This is in line with previous research showing that habit does not significantly influence use behavior (Lavinia et al., 2024). This occurs because, despite certain habits, users do not feel motivated to make regular transactions, possibly due to a lack of positive experiences.

H10: Personal Innovativeness in IT has no significant effect on Behavioral Intention (p-value = 0.083), indicating that more innovative individuals tend to have a greater intention to use the application. This is in line with previous research showing that personal innovativeness in IT does not significantly influence use behavior (Hilyah et al., 2024). This suggests that individuals with higher levels of technological innovation tend to have a greater intention to use the LinkAja application because they are more open to using new technology.

H11: Personal Innovativeness in IT also has a positive and significant effect on Use Behavior (p-value = 0.035). This indicates that more innovative individuals are more active in using the LinkAja application. This indicates that individuals who are more innovative in technology not only have a higher intention to use the application, but also are more active in their LinkAja application usage behavior (Mulazid et al., 2024; Kurniawan et al., 2025).

H12: Behavioral Intention does not have a significant effect on Use Behavior (p-value = 0.324). This indicates that user intention is not always directly proportional to application usage behavior. This is in line with previous research showing that behavioral intention does not significantly influence use behavior. This indicates that they are more likely to actually use the application in their daily activities (Hilyah et al., 2024).

CONCLUSION

The study applying the *Unified Theory of Acceptance and Use of Technology 3 (UTAUT 3)* model to the LinkAja application in Malang City reveals that users exhibit skepticism about the app's ability to improve transaction performance, reflected in the insignificant impact of performance expectancy and effort expectancy on behavioral intention. Additionally, limited social support and infrastructure contribute to the minimal influence of facilitating conditions and social influence. While price value slightly impacts user assessment, hedonic motivation and habit show no significant effects. Notably, personal innovativeness in IT significantly affects usage behavior and nearly influences behavioral intention, implying that creativity plays a crucial role in actual application use, and behavioral intention does not always predict use behavior. Recommendations for developers include adding useful features, simplifying payment processes, and engaging local influencers to bolster social influence. The study also

suggests that the UTAUT 3 model's applicability varies based on demographic and geographic contexts. Given the limitation of a small sample size of 140 respondents, future research should expand the scope to include the Greater Malang area for more representative and generalizable results.

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