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Analyzing the Impact of Fintech and Banking Services on Shopee Usage: An Application of the Technology Acceptance Model (TAM)

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Abstract

The development of digital technology has driven the transformation of payment systems and financial transactions, particularly through digital banking and financial technology (fintech) facilities, resulting in increased e-commerce usage. Drawing upon the Techonology Acceptance Model (TAM) as the theoretical foundation, this study aims to analyze the influence of banking and financial technology (fintech) facilities on Shopee e commerce usage among students of the Faculty of Islamic Economics and Business (FEBI) UIN North Sumatra class of 2022. This study used a quantitative method with a survey approach by distributing questionnaires to 91 respondents selected using a purposive sampling technique. Data were analyzed using multiple linear regression with the help of SPSS software, and validity, reliability, and classical assumption tests were conducted. The findings showed that partially banking and financial technology transaction facilities have a positive and significant influence on Shopee e-commerce usage. Simultaneously, both independent variables also have a significant influence on Shopee e-commerce usage. The coefficient of determination (Adjusted R Square) value of 0.968 indicates that 96.8% of the variation in Shopee e-commerce usage can be explained by banking and financial technology transaction facilities, while the remainder is influenced by other factors outside the study. The key finding reveals that fintech demonstrates a more dominant influence ($\beta = 0.491$), reflecting higher perceived usefulness and ease of use through seamless platform integration, faster processing, and embedded incentives. The practical implication emphasize the need for banking institutions to enhance mobile banking UX/UI to match e-wallet flexibility, while universities should strengthen Islamic financial literacy programs addressing PayLater usage among students. The theoretical contribution extends the application of TAM in explaining digital payment adoption within Islamic economics contexts.

Keywords

Banking Transaction Services; Financial Technology (FinTech); Shopee E-Commerce; Technology Acceptance Model (TAM)

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1. INTRODUCTION

Advances in digital technology have transformed people's economic and financial activities, most visibly in the growing use of digital transactions, financial technology (FinTech), and e-commerce.

FinTech is broadly understood as an innovation that combines technology with financial services (Devita et al., 2021) and has been shown to promote financial inclusion through digital channels (Muzdalifa et al., 2018). This shift from cash-based to non-cash and digital payment has been driven by the ease of access, transaction speed, and diversity of digital payment services now available, particularly among younger, digitally native generations.

The adoption of digital payment services in e-commerce transactions can be explained through the Technology Acceptance Model (TAM) proposed by Davis (1989), which holds that an individual's intention to use a technology is shaped by perceived usefulness (PU) the belief that the technology improves performance and perceived ease of use (PEOU) the belief that using it requires little effort. In this study, banking transaction services and FinTech facilities represent the technological innovations whose adoption by FEBI students is shaped by these two perceptions: transaction efficiency and security (PU), and user-friendly, well-integrated interfaces (PEOU). For FEBI UINSU students, this process is further coloured by their academic exposure to sharia-compliant finance: sharia-compliance awareness leads them to evaluate FinTech features such as paylater against the prohibition of riba and gharar; relatively higher financial literacy shapes how digital payment options are chosen; and Islamic norms against wastefulness (israf) may moderate impulsive buying enabled by easy digital payment.

E-commerce growth in Indonesia has paralleled this shift in payment infrastructure (Sofiah & Aisyah, 2022; Lubis et al., n.d.), supported by increasingly adequate digital infrastructure (Irawan et al., 2025) and by banking facilities transfers, virtual accounts, and digital banking services (Zhara & Tuti, 2023) as well as by FinTech tools such as e-wallets and paylater services (Nurhalizah et al., 2023; Nurbaiti et al., 2021). Shopee is one of the platforms most shaped by this trend: it was the most-accessed marketplace in Indonesia in 2025, used by 53.22% of online shoppers (Z. Agnes, 2025), and prior TAM-based research on Shopee itself confirms that students adopt the platform once its perceived usefulness and ease of use are established (Nurfiyah et al., 2019). A preliminary interview with a FEBI UINSU student (Safnah Soleha) suggested a similar pattern locally: students vary in their payment choices for Shopee transactions some still rely on cash on delivery, others on bank transfers or FinTech services such as e-wallets, paylater, and QRIS and this variation appears tied to differences in access, understanding, transaction security, fees, promotions, and established habits. Because FEBI students combine this general digital exposure with formal training in Islamic economics, their evaluation of digital payment services may be shaped by sharia-compliance awareness and financial literacy in ways not yet examined empirically.

Previous studies confirm that FinTech and banking facilities separately encourage e-commerce and Shopee usage (Irfan et al., 2023; Maulidatinisa et al., 2025; Susilawati et al., 2024; Reza et al., 2023; Ayu & Anindya, 2025), but at least three gaps remain. First, findings are rarely anchored to an established adoption theory such as TAM or UTAUT. Second, banking and FinTech facilities are typically examined separately rather than as joint predictors, even though users encounter both simultaneously. Third, no study has yet examined this relationship among e-commerce users with an Islamic economics educational background, and studies specifically covering the 2022 cohort of FEBI UINSU students remain scarce.

Addressing these gaps, this study examines the extent to which banking transaction facilities and FinTech jointly influence Shopee e-commerce usage among the 2022 cohort of FEBI UINSU students, testing their partial and simultaneous effects. Theoretically, it extends TAM into an Islamic-economics-informed digital payment context. Practically, the findings are expected to help banking institutions, FinTech providers, and e-commerce platforms develop digital transaction facilities that better meet the needs of financially literate, sharia-aware student users, and to serve as a foundation for strengthening digital and Islamic financial literacy at FEBI UINSU.

2. METHODS

This study uses a quantitative approach (Irfan Syahroni, 2022; Ahmadi, 2022), chosen because the research aims to statistically test causal relationships and measure how much each independent variable contributes to Shopee e-commerce usage among the 2022 cohort of FEBI UINSU students. Primary data were collected through a five-point Likert-scale questionnaire (1 = strongly disagree to 5 = strongly agree) measuring perceptions of banking transaction services, FinTech, and Shopee usage, supplemented by secondary data from books and scholarly journals. Data collection combined direct observation of students' banking and FinTech habits, questionnaire distribution as the primary instrument, and documentation from FEBI UINSU administrative records.

The questionnaire operationalised three variables across 34 items, summarised in Table 1: Banking Transaction Services (X1, 12 items covering ease of access, service reliability, convenience and compatibility, and efficiency), Financial Technology (X2, 9 items covering transaction speed, efficiency, and ease of use), and Shopee E-Commerce Usage (Y, 13 items covering economic incentives, trust in the platform, marketing influence, and ease of doing business). The instrument was tested for validity and reliability prior to use to ensure it genuinely measured the intended constructs and could be replicated in future research.

Table 1. Operationalization of Variables

Variables	Definition	Dimensions	Indicators
Banking Transaction Service	Digital banking services provided by banks for online payments and transfers that facolitate customers in conductiong electronic financial transactions	Ease of Acess	Ease of accessing digital banking service
			Practical non-cash transaction
			Access to services when online shopping
			Ease of mobile banking application
		Service Reliability	No obstacles in accessing services
			Transaction security
			Trust in the banking system
		Convenience & Compability	Comfort in using mobile banking
			suitability of features with needs
			Satisfaction with banking features
		Efficiency	Limitations rarely become obstacles
			Time and cost efficiency
Financial Technology	Innovation in financial services that combines technology with financial services to facilitate digital transactions	Transaction speed	Fast transactions
			Faster thag cash
			Accelerates shopping activities
		Efficiency	Efficient transaction process
			Saves time
			Reduces obstacles/hurdies
		Ease of Use	Easy access anywhere
			No difficulty in use
			Easy-to-understand features
Shopee E-commerce Usage	Intensity and behavior of students in using the Shopee e-commerce platform for online shopping transactions	Economic Incentives	Interest in large discounts
			Saving expenses
			Encouragement from transaction fee discounts
		Trust in Platform	Selection based on reviews
			Selection based on ratings
			Trust in Shoppee
			Security based on positive image
		Marketing Influence	Clarity of promotional information
			Influence of digital marketing ads
			Social media influence
		Ease of Doing Business	Ease of competing in e-commerce market
			Ease of payment methods for business
			Easy of transaction system

The sampling technique used was purposive sampling, applying the following inclusion and exclusion criteria to ensure respondents had genuine, recent experience with both banking and FinTech payment methods on Shopee:

Inclusion Criteria:

1. Active students registered in the Faculty of Islamic Economics and Business (FEBI), UINSU for the 2022 academic year
2. Has made at least one transaction on Shopee e-commerce platform in the past six months
3. Has used at least one digital payment method (banking or FinTech) for Shopee transactions

4. Willing to participate in the study and complete the questionnaire fully

Exclusion Criteria:

1. Students who have never conducted Shopee transactions
2. Students who only use Cash on Delivery (COD) payment methods
3. Students who did not complete the questionnaire fully

From a population of 971 registered 2022-cohort FEBI students, the Slovin formula with a 10% margin of error yielded a minimum sample of 90.66, rounded to 91 respondents. Although Slovin's formula formally assumes probability sampling, it was used here only as a benchmark for a statistically adequate minimum 91 respondents comfortably exceeds the 40 required for two-predictor multiple regression at 15–20 respondents per predictor. The 10% margin was chosen given time and resource constraints relative to the full population (a 5% margin would require roughly 283 respondents), is consistent with comparable prior studies, and is acceptable because the study's purpose is to detect relationships between variables rather than to precisely estimate population parameters.

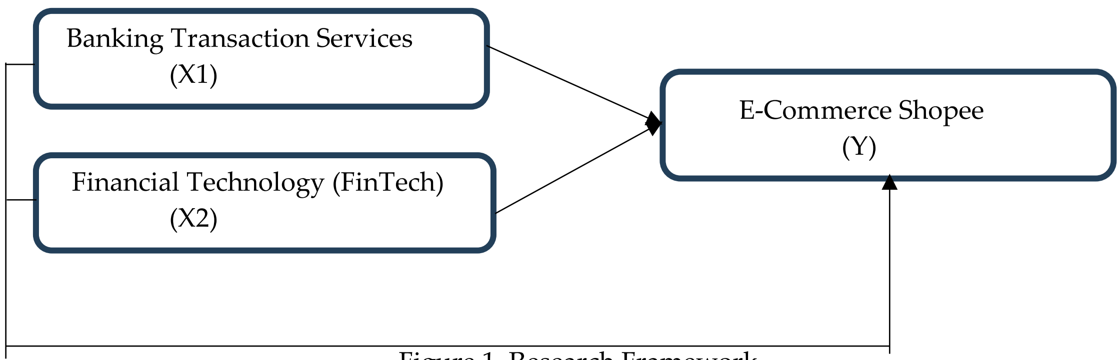

Figure 1. Research Framework
Source: created by researcher (2026)

The research framework (Figure 1) positions Banking Transaction Services (X1) and Financial Technology (X2) as independent variables predicted, under TAM, to influence Shopee E-Commerce Usage (Y) as the dependent variable, tested both partially and simultaneously: perceived usefulness and perceived ease of use generated by banking and FinTech facilities are hypothesised to shape students' intention to use, and ultimately their intensity of using, Shopee. This framework yields three pairs of hypotheses, formulated below, where the null hypothesis (H_0) states the absence of influence and the alternative (H_a) states its presence:

Based on several previous studies and frameworks, to test the influence between independent variables and bound variables, a hypothesis can be formulated. A hypothesis is a basic assumption for the formulation of a problem that is presumptuous in nature and will be tested for its truthfulness. The following hypotheses from this study are as follows:

H01 : There is no significant influence between the Banking Transaction Facility on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

Ha1 : There is a significant influence between Banking Transaction Facilities on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

H02 : There is no significant influence between Financial Technology (FinTech) on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

Ha2 : There is a significant influence between Financial Technology (Fintech) on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

H03 : There is no simultaneous significant effect of the variables of Banking and Financial Technology (FinTech) Transaction Facilities on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

Ha3 : There is a simultaneous significant influence of the variables of Banking and Financial Technology (FinTech) Transaction Facilities on Shopee E-Commerce Users (FEBI UIN-SU Students in 2022).

Data were analysed using multiple linear regression in SPSS. Instrument validity was assessed through item-total correlation (valid if r-count exceeds the critical r-table value), and reliability through Cronbach's Alpha (reliable if Alpha exceeds 0.70). Classical assumption tests included the One-Sample Kolmogorov–Smirnov test for normality, Tolerance and VIF for multicollinearity, and the Glejser test for heteroscedasticity. Partial effects were tested with the t-test and the simultaneous effect with the F-test (both significant if the calculated value exceeds the critical value and significance is below 0.05), while the Adjusted R Square indicated the proportion of variance in Shopee usage jointly explained by banking transaction services and FinTech.

3. FINDINGS AND DISCUSSION

Instruments

Validity Test

Table 2. Validity Test

Variable	Item	Calculated R-Value	Critical R-Value	Result
Banking Transaction Services	X1.1	0,247	0,206	Valid
	X1.2	0,580	0,206	Valid
	X1.3	0,705	0,206	Valid
	X1.4	0,729	0,206	Valid
	X1.5	0,699	0,206	Valid
	X1.6	0,709	0,206	Valid
	X1.7	0,814	0,206	Valid
	X1.8	0,763	0,206	Valid

	X1.9	0,784	0,206	Valid
	X1.10	0,795	0,206	Valid
	X1.11	0,810	0,206	Valid
	X1.12	0,723	0,206	Valid
Financial Technology	X2.1	0,830	0,206	Valid
	X2.2	0,819	0,206	Valid
	X2.3	0,893	0,206	Valid
	X2.4	0,840	0,206	Valid
	X2.5	0,794	0,206	Valid
	X2.6	0,795	0,206	Valid
	X2.7	0,816	0,206	Valid
	X2.8	0,850	0,206	Valid
	X2.9	0,829	0,206	Valid
E-Commerce Shopee	Y.1	0,594	0,206	Valid
	Y.2	0,587	0,206	Valid
	Y.3	0,784	0,206	Valid
	Y.4	0,617	0,206	Valid
	Y.5	0,649	0,206	Valid
	Y.6	0,711	0,206	Valid
	Y.7	0,797	0,206	Valid
	Y.8	0,820	0,206	Valid
	Y.9	0,690	0,206	Valid
	Y.10	0,629	0,206	Valid
	Y.11	0,546	0,206	Valid
	Y.12	0,724	0,206	Valid
	Y.13	0,846	0,206	Valid

Source: Researcher-Processed Data (2026)

All 34 questionnaire items had calculated r-values above the critical r-table value of 0.206, confirming that every item across the three variables was valid and that the instrument accurately captured the intended constructs, so the data collected can be relied upon for further analysis.

Table 3. Reliability Test

Variable	Cronbach's Alpha	Result
Banking Transaction Services	0,882	Reliable
Financial Technology	0,942	Reliable
E-commerce Shopee	0,909	Reliable

Source: Researcher-Processed Data (2026)

All variables exceeded the 0.70 reliability threshold: Financial Technology showed the strongest internal consistency (α = 0.942), followed by Shopee E-Commerce Usage (α = 0.909) and Banking Transaction Services (α = 0.882). This indicates the questionnaire measured each variable consistently and can be relied upon and replicated in future research.

Table 4. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		91
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.11626833
Most Extreme Differences	Absolute	.069
	Positive	.067
	Negative	-.069
Test Statistic		.069
Asymp. Sig. (2-tailed)[c]		.200[d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Researcher-Processed Data (2026)

The Asymp. Sig. (2-tailed) value of 0.200 exceeded the 0.05 threshold, indicating that the residuals were normally distributed and that the normality assumption for multiple linear regression was satisfied.

Multicollinearity Test

Table 5. Multicollinearity Test

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.334	1.073		3.108	.003		
	Banking Transaction Services	.491	.037	.457	13.400	<.001	.303	3.300
	Financial Technology	.680	.041	.571	16.749	<.001	.303	3.300
a. Dependent Variable: E-Commerce Shopee								

Source: Researcher-Processed Data (2026)

Tolerance values of 0.303 (> 0.10) and VIF values of 3.300 (< 10.00) for both independent variables indicate that no multicollinearity was detected, confirming that Banking Transaction Services and Financial Technology each contribute independently to explaining Shopee usage.

Heterokedasticity Test

Table 6. Heterokedasticity Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.022	.615		.035	.972
	Banking Transaction Services	.017	.021	.152	.796	.428
	Financial Technology	-3.473E-5	.023	.000	-.001	.999
a. Dependent Variable: E-Commerce Shopee						

Source: Researcher-Processed Data (2026)

The Glejser test produced significance values of 0.428 for Banking Transaction Services and 0.999 for Financial Technology, both above 0.05, indicating no heteroscedasticity: the residual variance in the regression model was homogeneous.

Hypothesis Testing

Multiple Linear Regression Analysis

Table 7. Multiple Linear Regression Analysis

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.334	1.073		3.108	.003
	Banking Transaction Services	.491	.037	.457	13.400	<.001
	Financial Technology	.680	.041	.571	16.749	<.001
a. Dependent Variable: E-Commerce Shopee						

Source: Researcher-Processed Data (2026)

Based on the table above, the multiple linear regression equation is $Y = 3.334 + 0.491X1 + 0.680X2$, interpreted as follows:

a. The constant value of 3.334 indicates that when Banking Transaction Services and Financial Technology are equal to 0, the level of Shopee E-Commerce usage remains at 3.334 students maintain a baseline tendency to use Shopee even in the absence of both services.
b. The regression coefficient of 0.491 for Banking Transaction Services indicates that a one-unit increase in this variable is associated with a 0.491-unit increase in Shopee usage, holding Financial

Technology constant a positive relationship consistent with better-perceived banking services encouraging more frequent Shopee transactions.

c. The regression coefficient of 0.680 for Financial Technology reflects a proportionally larger positive effect, and because it exceeds the coefficient for Banking Transaction Services, Financial Technology has the more dominant influence on Shopee usage among FEBI UINSU students. This finding is consistent with Generation Z's greater familiarity with digital wallets, pay-later services, and QRIS, which offer fast, convenient, and seamlessly integrated payment options within the Shopee platform.

t-Test (Partial Test)

Table 8. t-Test (Partial Test)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.334	1.073		3.108	.003
	Banking Transaction Services	.491	.037	.457	13.400	<.001
	Financial Technology	.680	.041	.571	16.749	<.001
a. Dependent Variable: E-Commerce Shopee						

Source: Researcher-Processed Data (2026)

For Banking Transaction Services (X1), the calculated t-value of 13.400 exceeded the critical t-value of 1.662 (sig. < 0.05), so H_{01} was rejected and H_{a1} accepted. For Financial Technology (X2), the calculated t-value of 16.749 likewise exceeded the critical value (sig. < 0.05), so H_{02} was rejected and H_{a2} accepted. Both variables therefore have a positive and statistically significant partial effect on Shopee E-Commerce usage.

F-Test (Simultaneous Test)

Table 9. F-Test (Simultaneous Test)

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3510.756	2	1755.378	1377.443	<.001[b]
	Residual	112.145	88	1.274		
	Total	3622.901	90			
a. Dependent Variable: E-Commerce Shopee						
b. Predictors: (Constant), Banking Transaction Services, Financial Technology						

Source: Researcher-Processed Data (2026)

The calculated F-value of 1377.443 exceeded the critical F-value of 3.10, with significance below 0.05, so H_{03} was rejected and H_{a3} accepted: Banking Transaction Services and Financial Technology simultaneously have a statistically significant effect on Shopee E-Commerce usage among the 2022 cohort of FEBI UINSU students.

Coefficient of Determination (R^2)

Table 10. Coefficient of Determination (R^2)

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.984[a]	.969	.968	1.12888
a. Predictors: (Constant), Banking Transaction Services, Financial Technology				
b. Dependent Variable: E-Commerce Shopee				

Source: Researcher-Processed Data (2026)

The Adjusted R Square value of 0.968 indicates that 96.8% of the variation in Shopee E-Commerce usage can be explained jointly by Banking Transaction Services and Financial Technology, while the remaining 3.2% is attributable to factors outside the model, such as promotional activities, product quality, or shopping habits.

This exceptionally high R^2 warrants a cautious rather than an uncritical reading. At least three factors plausibly contribute to it: the close conceptual overlap between the predictors and the outcome, since banking and FinTech facilities are integral to the e-commerce transaction process; the homogeneity of the sample, whose respondents share the same cohort, faculty, and age group; and the well-integrated ecosystem between Shopee and both categories of payment service. This should not be interpreted as evidence of deterministic causation, nor generalised beyond this specific respondent group.

Discussion

The Effect of Banking Transaction Services on Shopee E-Commerce Usage Among 2022 FEBI UINSU Students

The partial t-test confirmed a positive, statistically significant effect of Banking Transaction Services on Shopee usage ($t = 13.400 > 1.662$, $p < .05$; $\beta = 0.457$), so H_{01} was rejected in favour of H_{a1}. This significant coefficient confirms that the effect of banking transaction services is not due to chance but represents a genuine contribution to increasing Shopee usage among FEBI UINSU students.

This effect is consistent with the Technology Acceptance Model. Banking services raise perceived usefulness through accessible mobile banking, transaction security, real-time confirmation, and cost efficiency, and raise perceived ease of use through user-friendly interfaces and integration with Shopee via virtual accounts and QRIS (Andhika et al., 2023; Syah et al., 2022). Mobile banking, interbank transfers, and virtual accounts let students complete transactions quickly without relying on cash, and real-time confirmation smooths the purchasing experience. As banking services become more accessible, secure, and user-friendly, students transact more readily through Shopee, supporting Saipul et al. (2022).

These findings are consistent with prior evidence that integrated digital financial services promote e-commerce adoption and intensity (Irfan et al., 2023; Muzakkir et al., 2025). This is particularly relevant for FEBI students, many of whom specialise in Islamic banking and accounting: their academic exposure to concepts such as mudharabah, musyarakah, and transparent contracts (akad) may deepen their trust in and preference for fee-based over interest-based banking products, while awareness of the prohibition of riba may reinforce this preference. These findings also support Saipul et al. (2022), who found that a higher understanding of digital payment systems is associated with increased e-commerce activity.

The Effect of Financial Technology (FinTech) on Shopee E-Commerce Usage Among 2022 FEBI UINSU Students

The partial t-test also confirmed a positive, statistically significant effect of Financial Technology on Shopee usage ($t = 16.749 > 1.662$, $p < .05$; $\beta = 0.571$), so H_{02} was rejected in favour of H_{a2}. Because this coefficient exceeds that of Banking Transaction Services, FinTech has the more dominant influence of the two predictors reflecting the convenience, accessibility, speed, and efficiency that e-wallets, pay-later services, and QRIS offer Generation Z students.

Within TAM, this dominance can be traced to three reinforcing mechanisms. First, higher perceived usefulness: features such as ShopeePay, paylater, and QRIS are integrated directly into the platform, offering real-time processing plus cashback and promotional incentives that add value beyond basic payment functionality. Second, higher perceived ease of use: checkout requires no separate app switching, registration for basic features is minimal, and QRIS scanning or one-click payment shortens the transaction itself. Third, an extrinsic-motivation effect resembling perceived enjoyment, in which gamified elements, promotional offers, and social-sharing features reinforce continued use (Rahmadhani et al., 2022; Insani & Yuneline, 2023).

FinTech facilitates a wide range of financial activities through fast, convenient digital payment solutions (Nurhalizah et al., 2023), encompassing e-wallets, paylater, and other services that let users transact without relying solely on traditional financial systems (Ummah, 2024), while integrated data-security technologies enhance consumer trust (Nadhiro, 2024). These findings support Maulidatinisa et al. (2025), who concluded that perceived ease of use and usefulness of FinTech encourage university students to use Shopee.

FinTech's influence is further strengthened by its integration with the Shopee platform through ShopeePay, cashback offers, discount vouchers, and pay-later flexibility, indicating that FinTech functions not only as a payment method but as a value-added component of the online shopping experience (Angraeni, 2023).

For FEBI students, this dominance carries a distinctly Islamic-finance dimension. Students with an Islamic economics background are positioned to scrutinise paylater services for elements of riba (interest) and gharar (uncertainty) concerns documented in recent research specifically on Shopee PayLater use among students (Pratama et al., 2025). That FinTech nonetheless remains the more dominant predictor suggests students may perceive certain features as sufficiently fee-based to be acceptable, that convenience currently outweighs religious considerations in practice, or that students distinguish essential from discretionary transactions when applying Islamic principles. At the same time, FinTech's fee transparency and instant confirmation align with the Islamic emphasis on clear contracts, while its accessibility resonates with Islamic finance's broader goal of inclusive, equitable economic participation (Muzdalifa et al., 2018).

The Effect of Banking Transaction Services and Financial Technology (FinTech) on Shopee E-Commerce Usage: A Case Study of the 2022 Cohort of Students at the Faculty of Islamic Economics and Business, Universitas Islam Negeri Sumatera Utara (UINSU)

The simultaneous F-test confirmed F = 1377.443, far above the critical value of 3.10 ($p < .001$), so H_{03} was rejected in favour of H_{a3}: Banking Transaction Services and Financial Technology jointly and significantly influence Shopee E-Commerce usage among the 2022 cohort of FEBI UINSU students. This confirms that banking and FinTech are complementary, not substitutable, components of the modern e-commerce ecosystem, jointly enhancing students' convenience and confidence when transacting online.

Through the TAM lens, banking services supply the underlying security and trust that make students comfortable transacting online at all, while FinTech supplies the speed, flexibility, and value-added experience that make Shopee specifically attractive together shaping students' behavioural intention to use Shopee.

These findings are consistent with Saipul et al. (2022), who found that banking payment facilities and FinTech-based cashless payment services jointly have a significant effect on increasing e-commerce transactions, and with Ummah (2024), who documented the role of integrated digital banking and FinTech in promoting the growth of electronic and platform-based digital economic activities. From a practical perspective, the high Adjusted R Square value (96.8%) indicates that the development of Shopee's digital transaction services should continue to prioritise security, transaction speed, and seamless system integration.

However, an Adjusted R Square of 96.8% does not imply that Shopee usage is determined solely by these two variables. The remaining 3.2% may be explained by other factors not included in this study, such as promotional activities, pricing, product quality, consumer trust, shopping habits, application usability, and financial literacy. This exceptionally high explanatory power is also plausibly inflated by the homogeneity of the FEBI 2022 cohort sample and by the shared self-report method used to measure all three variables a possibility addressed further in the Conclusion.

4. CONCLUSION

Based on the findings of this study, Shopee E-Commerce usage among the 2022 cohort of FEBI UINSU students is shaped not only by the availability of the platform itself but by the accessibility and quality of the digital transaction services that support it. Banking Transaction Services contribute through convenient access, transaction security, processing speed, and payment reliability, while Financial Technology (FinTech) contributes through ease of use, operational efficiency, rapid processing, and features seamlessly integrated into the shopping experience.

Financial Technology (FinTech) emerged as the more influential of the two a pattern attributable to its direct integration with Shopee through ShopeePay, real-time payment processing, and value-added benefits such as cashback, discount vouchers, and pay-later services. Consequently, FinTech functions not only as a payment instrument but as an integral component of the overall e-commerce experience, improving both user convenience and transaction attractiveness.

Nevertheless, Banking Transaction Services remain essential infrastructure for the security and reliability of digital transactions. Together they form a complementary digital payment ecosystem whose explanatory power for Shopee usage, while very high in this sample (Adjusted R Square = 96.8%), should be read in light of the sample's homogeneity rather than as a claim that no other factors promotions, pricing, product quality, trust, habits, or financial literacy are also at work.

Academically, this study strengthens the relationship between e-commerce growth and digital payment infrastructure and extends the Technology Acceptance Model (TAM) within an Islamic-economics-informed student context. Practically, banks should improve mobile banking UX/UI, integrate e-commerce payment features, strengthen virtual-account and QRIS services, and provide affordable youth-oriented products with Islamic financial education. FinTech providers should strengthen data privacy, fee transparency, sharia-compliant paylater information, and convenient payment features. Shopee should promote responsible shopping through spending-limit notifications, halal-product information, and efficient checkout. FEBI UINSU should strengthen digital and Islamic financial literacy through curriculum, workshops, and industry partnerships, while students should avoid riba and gharar and practise disciplined spending.

This study has several limitations. The sample is limited to one cohort and faculty at one university, restricting generalisability. The cross-sectional design, self-reported data, purposive sampling, and 10% margin of error also limit causal and population inference. In addition, the model excludes important TAM constructs and other factors such as financial literacy, impulse buying, risk perception, and social influence. Therefore, the high R^2 should not be interpreted as evidence that banking and FinTech are the sole determinants of Shopee usage.

Future research should examine perceived usefulness and perceived ease of use as mediators and Islamic financial literacy as a moderator. Further studies could incorporate financial literacy, impulse buying, risk perception, and social influence, while applying longitudinal or mixed-method approaches, objective transaction data, random sampling, and broader samples across faculties, universities, and regions to improve the generalisability of findings.

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