

Research Article

Fintech Understanding, Usage, and Adoption Interest among MSME Traders at Kepandean Market, Serang City, Banten

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Abstract. This study examines the relationship between fintech understanding, fintech usage, and adoption interest among MSME traders at Kepandean Market, Serang City, Banten. The study applies a quantitative cross-sectional survey design using 100 trader respondents. The administrative sampling frame contains 282 trader records. Using the Slovin formula with a 10% margin of error, the minimum sample requirement is 74 respondents, while the available survey dataset exceeds this requirement. The observed variables are represented by ordered categories of fintech understanding, fintech usage, and adoption interest. Data were analyzed using descriptive statistics, cross-tabulation, Spearman's rank correlation, chi-square tests of independence, and Cramer's V. The findings show strong positive associations between fintech understanding and usage ($\rho = 0.760$, $p < 0.001$), fintech understanding and adoption interest ($\rho = 0.742$, $p < 0.001$), and fintech usage and adoption interest ($\rho = 0.719$, $p < 0.001$). The results indicate that traders with stronger fintech understanding tend to report more intensive usage and stronger interest in adoption. The findings provide empirical evidence from a traditional-market setting and suggest that digital-finance programs should combine literacy, practical assistance, and security awareness to encourage safe and sustained fintech use.

Keywords: Adoption Interest; Financial Literacy; Fintech; Fintech Usage; MSMEs; Serang; Traditional Market.

1. Introduction

Digitalization has increasingly transformed the way small businesses conduct financial activities. Payments, transfers, savings, financing, transaction recording, and customer interactions that previously depended on cash or face-to-face services can now be supported by digital financial technologies. Financial technology (fintech) has therefore become an important component of the contemporary financial ecosystem because it connects financial services with digital platforms and can improve accessibility, speed, convenience, and transaction efficiency (Arner et al., 2015). For micro, small, and medium enterprises (MSMEs), however, access to a fintech application does not automatically mean that the technology is understood or used effectively.

Financial literacy provides an important foundation for financial decision-making. Lsardi & Mitchell, (2014) conceptualize financial literacy as economically relevant knowledge that supports financial decisions, while Hastings et al. (2013) review evidence concerning the relationship between financial literacy, financial education, and economic outcomes. In a digital environment, the required competence becomes broader because business owners need to understand not only financial concepts but also digital transaction procedures, fees, authentication, privacy, fraud risks, and the consequences of digital financial decisions. This creates an intersection between financial literacy and digital-finance capability.

The issue is particularly relevant for MSMEs because many small traders operate with limited administrative resources, informal bookkeeping practices, and different levels of technological exposure. Digital payment and fintech services may reduce transaction friction and broaden access to financial services, but adoption can be constrained by limited knowledge, perceived risks, lack of trust, unfamiliarity, or the absence of practical assistance. Indonesian

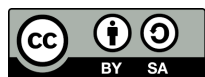
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studies have reported that financial literacy, fintech capability, perceived usefulness, ease of use, financial habits, and related factors are associated with digital-finance adoption and MSME outcomes (Majid & Mawaddah, 2022; Sukandar & Hermawan, 2022; Wismanoro & Susilowati, 2021; Sutrisno & Nainggolan, 2025).

Kepandean Market in Serang City, Banten, provides a useful empirical setting for examining these issues. The market consists of traders with different merchandise categories and different levels of exposure to digital finance. The available administrative trader database contains 282 records. In addition to this sampling frame, a survey dataset containing 100 trader responses is available for analysis. Importantly, the observed information is recorded as ordered categories describing fintech understanding, actual or previous fintech usage, and interest or enthusiasm toward adoption. Consequently, a statistical framework designed for ordinal and categorical observations is more appropriate than imposing a linear regression model that would require continuous or multi-item scale variables.

Previous research has frequently examined fintech adoption, financial literacy, financial inclusion, financial management, business performance, or sustainability as separate outcomes. The present study focuses more narrowly on the relationship among three behavioral dimensions: understanding, actual usage, and adoption interest. This distinction is useful because a trader can understand fintech without currently using it, can have used fintech previously without continuing, or can express interest even when current usage is limited. Examining the three dimensions together provides a more nuanced description of digital-finance readiness among traditional-market traders.

The research questions are: (1) Is fintech understanding associated with fintech usage among MSME traders at Kepandean Market? (2) Is fintech understanding associated with fintech adoption interest? and (3) Is fintech usage associated with adoption interest? The objectives are to describe the distribution of the three variables and to identify the direction, strength, and statistical significance of their relationships. The study contributes local empirical evidence from a traditional market and demonstrates an analysis strategy that is aligned with the ordinal structure of the available data.

The remainder of the article is organized as follows. Section 2 discusses the theoretical and empirical background. Section 3 describes the research design, population, sample, measurement, and analytical procedures. Section 4 presents the descriptive and inferential findings and discusses their implications. Section 5 compares the study with selected prior research, and Section 6 concludes the article and identifies limitations and directions for future research.

2. Literature Review

Financial Literacy and Digital Financial Capability

Financial literacy refers to the knowledge and skills needed to understand financial information and make informed decisions. It is not limited to knowing financial terminology; it also involves applying knowledge to everyday financial choices. Lusardi and Mitchell (2014) argue that financial literacy can be considered a form of human capital because it affects the quality of economic decisions. Hastings et al. (2013) similarly emphasize the importance of financial knowledge in understanding economic behavior.

Digital financial capability extends this concept into an environment where financial transactions are mediated by technology. A trader using digital payments needs to understand account access, transaction confirmation, fees, privacy, security, and potential fraud. The capability therefore combines financial knowledge with operational and risk-awareness skills. For MSMEs, this capability may affect whether fintech is perceived as useful, manageable, and sufficiently safe for routine business activity.

Research on Indonesian MSMEs supports the relevance of these capabilities. Studies have associated financial literacy and fintech adoption with financial management and business outcomes, while research on digital financial literacy has examined its relationship with SME performance and sustainability (Anugraini et al., 2023; Kusumawardhani et al., 2023; Sari & Arifin, 2023). These studies provide a basis for treating understanding as an important condition for digital-finance behavior.

Fintech Usage and Adoption

Fintech usage represents actual behavioral engagement with technology-enabled financial services. It can range from no use, to occasional or previous use, to current use and routine use. Adoption interest, by contrast, reflects willingness or enthusiasm toward using fintech. These constructs are related but conceptually distinct. A person may have positive attitudes but limited behavior because of barriers, while an existing user may discontinue use because of risk, inconvenience, or changing business circumstances.

Technology-adoption research commonly emphasizes perceived usefulness, ease of use, behavioral intention, and facilitating conditions. UTAUT-based research has been applied to fintech adoption among MSMEs and highlights the role of factors that shape technology acceptance and use (Wismantoro & Susilowati, 2021). Other studies emphasize product knowledge, perceived usefulness, and ease of use in the context of SME fintech adoption (Majid & Mawaddah, 2022; Sukandar & Hermawan, 2022). These findings suggest that understanding and usage should be examined alongside interest or intention rather than treated as interchangeable concepts.

Research Gap and Hypotheses

Although the existing literature provides substantial evidence on financial literacy and fintech adoption, fewer studies describe the simultaneous gradient of understanding, actual usage, and adoption interest among individual traders in a traditional market. This study addresses that contextual gap using trader-level observations from Kepandean Market. The contribution is not a new statistical method, but an empirical characterization of a local MSME population using analysis that respects the ordinal nature of the observed categories.

H1: Higher fintech understanding is positively associated with more intensive fintech usage.

H2: Higher fintech understanding is positively associated with stronger fintech adoption interest.

H3: More intensive fintech usage is positively associated with stronger fintech adoption interest.

3. Research Method

Research Design

The study uses a quantitative, cross-sectional survey design. The unit of analysis is an individual MSME trader at Kepandean Market. The analysis is observational and associative: it identifies statistical relationships among ordered categories and does not claim causal effects. This distinction is important because the available data do not contain experimental manipulation or longitudinal observations.

Population, Sampling Frame, and Sample

The available administrative sampling frame contains 282 trader records. For sample-size planning, the Slovin formula is $n = N/(1 + Ne^2)$, where N is population size and e is the tolerated sampling error. With $N = 282$ and $e = 0.10$, $n = 282/[1 + 282(0.10)^2] = 73.82$, which is rounded upward to 74 respondents. The survey dataset contains 100 respondents, so the number of analyzed observations exceeds the minimum sample-size requirement. All 100 available records are included in the analysis.

Variables and Measurement

Three ordered variables are analyzed. Fintech understanding is recorded in five categories from Not Understanding to Very Understanding. Fintech usage is recorded in four categories from Not Using to Routinely Using. Adoption interest is recorded in five categories from Not Interested to Very Enthusiastic. The categories are coded numerically only to preserve their ordinal order for Spearman's rank correlation; the coding does not assume equal distances between categories.

Table 1. Operationalization of observed variables.

Variable	Operational definition	Observed categories	Measurement
Fintech understanding	Self-reported level of understanding of fintech	Not Understanding; Not Understanding; Fairly Understanding; Very Understanding	Ordinal 1–5
Fintech usage	Current or previous use of fintech services	Not Using; Ever Using; Routinely Using	Ordinal 1–4

Adoption interest	Interest or enthusiasm	Not Interested; Less	Ordinal 1–5
toward	fintech	Interested; Fairly	
adoption		Interested; Enthusiastic; Very Enthusiastic	

Data Analysis

The analysis begins with frequency and percentage distributions for each variable. Cross-tabulation is then used to examine how respondents are distributed across paired categories. Spearman's rank correlation coefficient (ρ) is used because the three measures are ordinal and the research questions concern monotonic association. Chi-square tests of independence are used to determine whether the paired categorical variables are statistically independent. Cramer's V is reported to describe the magnitude of association in the cross-tabulated data. Statistical significance is assessed at $\alpha = 0.05$.

Data Protection and Research Ethics

The analysis uses respondent identifiers rather than publishing personal identifying information. The manuscript reports aggregate patterns and statistical results and does not disclose individual trader identities. The use of the survey data should follow the consent, institutional, and privacy procedures applicable to the research.

4. Results and Discussion

Respondent Characteristics

Table 2. Distribution of respondents by market block.

Block	Frequency	Percentage
A	25	25.0%
B	24	24.0%
C	20	20.0%
D	15	15.0%
E	16	16.0%

Table 3. Distribution of respondents by type of merchandise.

Type of merchandise	Frequency	Percentage
Sembako	22	22.0%
Makanan & Minuman	20	20.0%
Pakaian	19	19.0%
Kosmetik & Aksesoris	12	12.0%
Jasa / Lainnya	10	10.0%
Elektronik / HP	10	10.0%
Sayur & Buah	7	7.0%

The dataset contains 100 respondents distributed across several market blocks and merchandise categories. This diversity is relevant because fintech exposure is not necessarily uniform across business types. Traders handling food, clothing, groceries, services, electronics, and other merchandise may encounter different transaction patterns and customer payment preferences. The analysis therefore treats the respondent as the unit of analysis rather than aggregating the observations only at the block level.

Distribution of Fintech Understanding, Usage, and Adoption Interest

Table 4. Fintech understanding distribution.

Category	Frequency	Percentage
Tidak Paham	8	8.0%
Belum Paham	16	16.0%
Cukup Paham	29	29.0%
Paham	28	28.0%
Sangat Paham	19	19.0%

Table 5. Fintech usage distribution.

Category	Frequency	Percentage
Tidak Menggunakan	28	28.0%
Pernah Menggunakan	25	25.0%
Sudah Menggunakan	27	27.0%
Rutin Menggunakan	20	20.0%

Table 6. Adoption-interest distribution.

Category	Frequency	Percentage
Tidak Berminat	9	9.0%
Kurang Berminat	10	10.0%
Cukup Berminat	25	25.0%
Antusias	26	26.0%
Sangat Antusias	30	30.0%

The descriptive results show that 47% of respondents are classified as Understanding or Very Understanding, while 24% are in the Not Understanding or Not Yet Understanding categories. In terms of usage, 47% are Already Using or Routinely Using fintech, while 28% are Not Using. Adoption interest is comparatively more positive: 56% are Enthusiastic or Very Enthusiastic, whereas 19% are Less Interested or Not Interested.

The difference between usage and interest is substantively important. The proportion of respondents with high adoption interest exceeds the proportion who currently use fintech intensively. This suggests a potential readiness gap: some traders may be interested in fintech but have not yet translated that interest into routine behavior. Such a gap can be addressed through practical demonstrations, assisted onboarding, and explanations of security and transaction procedures.

Cross-tabulation and Association Tests

Table 7. Cross-tabulation of fintech understanding and usage.

Pemahaman	Tidak Menggunakan	Pernah Menggunakan	Sudah Menggunakan	Rutin Menggunakan
Tidak Paham	8	0	0	0
Belum Paham	14	2	0	0
Cukup Paham	6	15	8	0
Paham	0	3	12	13
Sangat Paham	0	5	7	7

Table 8. Cross-tabulation of fintech understanding and adoption interest.

Pemahaman	Tidak Berminat	Kurang Berminat	Cukup Berminat	Antusias	Sangat Antusias
Tidak Paham	3	3	2	0	0
Belum Paham	6	3	7	0	0
Cukup Paham	0	4	10	15	0
Paham	0	0	2	7	19
Sangat Paham	0	0	4	4	11

Table 9. Cross-tabulation of fintech usage and adoption interest.

Penggunaan	Tidak Berminat	Kurang Berminat	Cukup Berminat	Antusias	Sangat Antusias
Tidak Menggunakan	8	5	15	0	0
Pernah Menggunakan	1	4	3	13	4

Sudah	0	1	5	11	10
Menggunakan					
Rutin	0	0	2	2	16
Menggunakan					

Table 10. Association tests.

Relationship	Spearman ρ	p	Chi-square	df	p	Cramer's V
Fintech understanding and fintech usage	0.760	< 0.001	95.185	12	< 0.001	0.563
Fintech understanding and adoption interest	0.742	< 0.001	95.890	16	< 0.001	0.490
Fintech usage and adoption interest	0.719	< 0.001	80.778	12	< 0.001	0.519

The first hypothesis is supported. Fintech understanding has a strong positive association with fintech usage ($\rho = 0.760$, $p < 0.001$), and the chi-square test is statistically significant. Cramer's $V = 0.563$ indicates a substantial association in the cross-tabulated data. The direction is consistent with the expectation that traders who understand fintech better are more likely to progress from non-use or occasional use toward current and routine use.

The second hypothesis is also supported. Fintech understanding is strongly and positively associated with adoption interest ($\rho = 0.742$, $p < 0.001$), with Cramer's $V = 0.490$ and a statistically significant chi-square test. This result indicates that understanding is related not only to behavior that has already occurred but also to the trader's willingness or enthusiasm toward future or continued adoption.

The third hypothesis is supported as well. Fintech usage is strongly associated with adoption interest ($\rho = 0.719$, $p < 0.001$), with Cramer's $V = 0.519$. The cross-tabulation indicates an ordinal gradient in which non-users are more concentrated in the lower-interest categories and routine users are more frequently represented in the higher-interest categories. Actual experience with fintech may therefore coexist with greater willingness to continue or expand its use.

Taken together, the three relationships form a coherent empirical pattern: understanding, usage, and interest move in the same positive direction. This is compatible with technology-adoption perspectives in which knowledge and perceived capability support actual use, while successful or familiar use can reinforce willingness to adopt. The pattern is also consistent with studies emphasizing product knowledge, perceived usefulness, ease of use, and financial literacy as relevant factors in fintech adoption among MSMEs (Majid & Mawaddah, 2022; Sukandar & Hermawan, 2022; Wismantoro & Susilowati, 2021).

The results should nevertheless be interpreted as associations rather than causal effects. Because the data are cross-sectional, the analysis cannot establish whether higher understanding causes greater usage, whether usage increases understanding, or whether another factor influences both. The ordinal coding also should not be interpreted as a continuous financial-literacy score. Future research can address these limitations using validated multi-item instruments, longitudinal data, and multivariate models.

From a practical perspective, the results suggest that digital-finance interventions should be differentiated by trader readiness. Respondents with low understanding may need basic literacy and security education. Those who have used fintech previously but do not use it routinely may need assistance with practical barriers, reliability, fees, or transaction procedures. Respondents who are already enthusiastic can be supported through more advanced use cases, such as digital transaction records, separation of business and personal funds, and safer cash-flow management. Such staged assistance may be more effective than offering a uniform fintech training package to all traders.

Comparison**Table 11.** Comparison with selected state-of-the-art studies.

Study	Main focus	Context/outcome	Contribution of present study
Anugraini et al. (2023)	Financial literacy, fintech, financial management	Financial management	Examines trader-level associations among understanding, usage, and interest
Adhim et al. (2023)	Fintech, financial literacy, financial inclusion	MSME growth	Adds evidence from a traditional-market trader setting
Kusumawardhani et al. (2023)	Digital financial literacy	SME performance	Focuses on observable fintech understanding and behavior
Kurniasari et al. (2023)	Financial and technological factors	Digital adoption and sustainability	Narrows the setting to individual traders at Kepandean Market
Sukandar & Hermawan (2022)	Fintech adoption, usefulness, ease of use	SME development	Complements adoption literature using actual usage categories
Present study	Understanding, usage, adoption interest	100 MSME traders at Kepandean Market	Local empirical evidence using ordinal association analysis

The present study complements rather than replaces the established fintech-adoption literature. Its principal contribution is contextual: it examines traders in a traditional market and separates three stages that are often merged into a single adoption construct. Methodologically, it also demonstrates why categorical or ordinal survey information should be analyzed using association measures appropriate to its measurement level. The study therefore provides a useful baseline for subsequent intervention or longitudinal research in the same market.

6. Conclusions

This study demonstrates statistically significant positive associations among fintech understanding, fintech usage, and adoption interest among 100 MSME traders at Kepandean Market, Serang City, Banten. Understanding is strongly associated with usage ($\varrho = 0.760$, $p < 0.001$), understanding is strongly associated with adoption interest ($\varrho = 0.742$, $p < 0.001$), and usage is strongly associated with adoption interest ($\varrho = 0.719$, $p < 0.001$). The corresponding chi-square tests are statistically significant, while Cramer's V values indicate meaningful associations.

All three hypotheses are therefore supported. The descriptive findings also show that adoption interest (56% enthusiastic or very enthusiastic) is somewhat higher than the proportion currently using fintech at the higher usage levels (47% already using or routinely using). This gap indicates an opportunity for practical digital-finance assistance, particularly programs that translate understanding and interest into safe, sustained usage.

The study has limitations. The variables are measured as ordered categories rather than validated multi-item psychometric scales, and the cross-sectional design does not support causal inference. The respondents are also drawn from one traditional market, limiting generalization to other MSME populations. Future studies should employ validated digital-financial-literacy instruments, larger samples across multiple markets, and longitudinal or multivariate designs to examine whether improvements in literacy lead to changes in fintech behavior and ultimately to measurable business outcomes.

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