

# Adoption of QRIS Digital Payment System in Remote and Underdeveloped Regions: Evidence from Eastern Indonesia's 3T Area

Mepa Medlama<sup>a\*</sup>, Syarifah<sup>b</sup>, Muhammad Fagi Difinubun<sup>c</sup>, Rianik Thomas<sup>d</sup>

<sup>a\*</sup> Universitas Amal Ilmiah Yapis Wamena, Indonesia. [mepamedlama@gmail.com](mailto:mepamedlama@gmail.com)

<sup>b</sup> Universitas Amal Ilmiah Yapis Wamena, Indonesia. [syarifah@unaim-wamena.ac.id](mailto:syarifah@unaim-wamena.ac.id)

<sup>c</sup> Universitas Amal Ilmiah Yapis Wamena, Indonesia. [fagi@unaim-wamena.ac.id](mailto:fagi@unaim-wamena.ac.id)

<sup>d</sup> Universitas Amal Ilmiah Yapis Wamena, Indonesia. [rianikthomas@unaim-wamena.ac.id](mailto:rianikthomas@unaim-wamena.ac.id)

| Article History | Submitted  | Revised                 | Accepted   |
|-----------------|------------|-------------------------|------------|
|                 | 2026-05-03 | 2026-05-14 & 2026-05-27 | 2026-05-30 |

## Abstract

The successful adoption of QRIS across all regions of Indonesia, including 3T areas, is a key prerequisite for achieving widespread financial inclusion. However, limited infrastructure and low trust in technology remain the biggest obstacles in 3T areas. This study aims to describe the level of adoption of QRIS (Quick Response Code Indonesia Standard) payment system among the community in Wamena City, Jayawijaya Regency, Papua Highlands Province, Indonesia, classified as a 3T (Underdeveloped, Frontier, and Remote) area. A pure descriptive quantitative method was used with non-probability and probability sampling techniques involving 80 active QRIS users as respondents. The QRIS adoption variable was measured through four indicators – usefulness, ease of use, convenience, and security – using a Likert scale. The results show an average adoption score of 269.6 (very agreeable). The usefulness indicator obtained the highest score (286.2), followed by security (283.6), ease of use (273), and convenience (235.6). These findings indicate that the Wamena community has adopted QRIS with a positive perception despite the area's limited technology infrastructure. Convenience remains an area needing improvement through enhanced internet connectivity.

**Keywords:** 3T Regions, Digital Payment System, QRIS Adoption, Technology Acceptance Model



## INTRODUCTION

The development of digital technology in the era of the Fourth Industrial Revolution has fundamentally transformed the financial ecosystem, driving a shift from cash transactions toward more efficient and inclusive cashless payment systems (Rahmatullah, 2025). In Indonesia, this transformation has been reinforced by the launch of the Quick Response Code Indonesia Standard (QRIS) by Bank Indonesia through Board of Governors Regulation No. 21/18/PADG/2019, which establishes a single national standard for QR codes across payment system service providers. QRIS is designed to simplify the digital payment ecosystem while promoting national financial inclusion, by enabling a single QR code to be used by all payment apps on smartphones (Yasin et al., 2025). According to Bank Indonesia data, the national volume of QRIS transactions reached 1.03 billion transactions throughout 2022, growing 86% year-over-year, with the number of users increasing from 14.9 million at the start of 2022 to 28.8 million by the end of the same year (Lau & Kulsum, 2023). As of July 2023, the total number of QRIS users reached 38.24 million, with a transaction value of Rp18 trillion – an 84.5% year-over-year increase (Bank Indonesia, 2023). This growth confirms that QRIS has become a key instrument in accelerating the digitalization of the national payment system and supports the government's target of achieving 90% financial inclusion by 2024 (Zeta Chandra et al., 2023).

Although QRIS adoption has shown rapid growth, various studies have identified a number of challenges in the adoption process. A comprehensive literature review found that low digital financial literacy, limited technological infrastructure, and a lack of outreach are the main barriers to the expansion of QRIS, particularly outside major urban areas (Prawitasari et al., 2024). Furthermore, a study based on the Technology Acceptance Model (TAM) found that perceived ease of use and perceived usefulness significantly influence the intention to adopt QRIS, but their effectiveness is highly dependent on infrastructure conditions and user literacy levels (Persadha et al., 2024). Similar findings were reported by (Dwiatma & Nuryakin, 2025), who demonstrated that QRIS adoption by SMEs has a positive impact on the number of employees and business performance; however, this adoption remains highly concentrated in urban areas with adequate infrastructure access.

The city of Wamena, as the capital of Jayawijaya Regency in the Papua Pegunungan Province, is one of the regions classified as a 3T area (Underdeveloped, Frontier, and Outermost) under a Presidential Decree of the Republic of Indonesia. Geographical isolation, limited telecommunications infrastructure, low internet penetration, and a lack of digital financial literacy pose structural challenges that hinder the development of the digital economy in this region. An analysis of e-government implementation in Jayawijaya Regency found that 70% of respondents assessed the accessibility of information systems and digital services as still suboptimal, a finding reinforced by the fact that unstable internet network quality is the public's primary complaint (Syarifah et al., 2023). These conditions create a context that differs significantly from the majority of existing studies on QRIS adoption. The successful adoption of QRIS across all corners of Indonesia, including 3T regions, is a key prerequisite for achieving equitable financial inclusion. Research (Ligon et al., 2019) in developing countries demonstrates that low adoption of digital payments among small merchants in remote areas is primarily driven by infrastructure limitations and low trust in technology two factors also relevant to the context

of Wamena City. Understanding the levels and patterns of QRIS adoption in 3T regions has become urgent for designing targeted policy interventions and fostering inclusive digital economic growth in eastern Indonesia.

Previous studies on QRIS adoption in Indonesia have largely focused on urban areas with relatively adequate infrastructure. (Zeta Chandra et al., 2023) examined interest in using QRIS among MSME actors in DKI Jakarta; (Alifia et al., 2024) examined the impact of QRIS on MSME income in urban areas; while (Yasin et al., 2025) modeled QRIS adoption among Indonesian youth in general. To the best of the author's knowledge, no study has specifically examined QRIS adoption in the 3T regions of Papua, particularly in the city of Wamena. This research gap is significant given that the geographical, social, and infrastructural characteristics of 3T regions differ fundamentally from the areas that have been the focus of previous studies, meaning that findings from an urban context cannot simply be generalized to regions such as Wamena. In addition, a study (Syarifah et al., 2020) found that, by region, most areas of Papua have not yet adopted fintech applications.

TAM has been widely proven to be a reliable framework for explaining the acceptance and adoption of digital payment systems (Tian & Chan, 2024). The four main indicators used in this study, perceived usefulness, ease of use, convenience, and security are the dimensions most consistently shown to influence the adoption of digital payment systems across various contexts, including in developing countries with limited infrastructure (Rafferty & Fajar, 2022). The use of these four indicators allows for a comprehensive mapping of public perceptions of QRIS in Wamena City, while also opening up opportunities for comparison with similar studies in other regions.

This study aims to describe the adoption rate of the QRIS payment system in Wamena City, Jayawijaya Regency, based on the indicators of benefits, ease of use, convenience, and security. Theoretically, this study contributes by extending the application of the Technology Acceptance Model (TAM) and the Theory of Innovation Diffusion to the context of 3T regions in eastern Indonesia, an area that has not been extensively explored in the literature on digital payment adoption. Practically, the findings of this study are expected to serve as a reference for Bank Indonesia, the local government of Jayawijaya Regency, and other stakeholders in designing outreach programs, improving digital financial literacy, and developing more targeted infrastructure to promote optimal QRIS adoption in 3T regions. Additionally, this study can serve as a guide for MSME operators in Wamena City in understanding the potential and challenges of using QRIS as a payment system that supports business growth in the digital economy era (Dwiatma & Nuryakin, 2025).

## **LITERATURE REVIEW**

### **Innovation Adoption**

Adoption is the process of accepting an innovation and changing behavior – whether in terms of knowledge (cognitive), attitude (affective), or skills (psychomotor) – after an individual has accepted an innovation (Mardikanto, 2009). Rogers (2003) defines adoption as the mental process of making a decision to accept or reject a new idea. Saragih & Rikumahu (2022) define the

intention to adopt a system as the extent to which an individual is interested in using a specific payment system to achieve their desired goals.

In the context of digital technology adoption, Rogers (2003) classifies adopters into five categories: (1) Innovators, a group willing to try innovations despite risks; (2) Early Adopters, the group with the highest level of opinion leadership; (3) Early Majority, the group in the middle of the adoption process; (4) Late Majority, the group that adopts after most doubts have subsided; and (5) Laggards, the traditional group that adopts last. This classification is relevant for understanding the dynamics of QRIS adoption in 3T regions such as Wamena City.

### **Technology Acceptance Model (TAM)**

The Technology Acceptance Model (TAM), developed by Davis (1989), is the most frequently used theoretical framework in technology adoption research. TAM posits that technology acceptance is influenced by two main constructs: perceived usefulness and perceived ease of use. These constructs positively and significantly influence usage intention and actual user behavior.

The application of TAM in the context of digital payment systems has been widely validated. Persadha et al. (2024) found that perceived ease of use does not directly influence the intention to use QRIS but operates indirectly through perceived usefulness. Similar findings were confirmed by Zeta Chandra et al. (2023), who studied SMEs in Jakarta, where financial literacy, perceived usefulness, and perceived ease of use simultaneously influence the intention to use QRIS. Tian and Chan (2024), in a cross-cultural study, also confirmed that perceived usefulness and perceived ease of use consistently serve as the strongest predictors of mobile payment system adoption.

### **QRIS as a Digital Payment System**

QRIS (Quick Response Code Indonesia Standard) is a QR code payment standard jointly developed by Bank Indonesia and the Indonesian Payment Systems Association (ASPI). Before QRIS, merchants had to support various different payment apps; with QRIS, a single QR code can be used by all payment apps on a smartphone (Sihaloho et al., 2020). The use of QRIS as a cashless payment tool offers benefits such as convenience, speed, and transaction security for both merchants and consumers.

Prawitasari et al. (2024), in a comprehensive literature review on QRIS adoption, concluded that the main factors driving QRIS adoption include perceived benefits, convenience, trust, and infrastructure support. Alifia et al. (2024) found that the use of QRIS has a positive effect on increasing MSME revenue. Zeta Chandra et al. (2023) emphasized that outreach and education strategies are key to expanding QRIS adoption among urban MSMEs.

### **Digital Adoption in 3T Regions**

The challenges of digital technology adoption in 3T regions are far more complex than in urban areas. Limited network infrastructure, low digital literacy, and a lack of access to formal education affect the pace at which communities adopt technological innovations (Syarifah et al., 2023). An analysis of e-government implementation in Jayawijaya Regency indicates that 70% of

respondents assessed that access to information systems and digital services remains suboptimal due to infrastructure limitations (Syarifah et al., 2025).

Ligon et al. (2019), in a study conducted in developing countries, found that low adoption of digital payments among small merchants in remote areas is primarily driven by infrastructure limitations and low trust in technology. In Indonesia, Abdillah Dwi Prasetyo et al. (2026) confirmed that network connectivity and digital literacy are significant moderating factors in the relationship between perceived benefits and the decision to adopt digital payments in areas with limited infrastructure.

**METHOD**

This study employs a purely quantitative descriptive method aimed at describing the values of QRIS adoption variables without making comparisons or establishing relationships between variables (Sugiyono, 2020). The research was conducted at retail stores and kiosks in Wamena City, Jayawijaya Regency, Papua Pegunungan Province. The research took place over approximately two months, encompassing the data collection, data processing, and report preparation stages.

The study population consists of all residents of Wamena City who use QRIS as a payment method, including both sellers and buyers, with a total population of 41,844 people (Wikipedia, 2021). Sample determination followed Hair, Hult, Ringle, & Sarstedt (2022) using the formula: minimum sample size = number of indicators × minimum number (4 × 20 = 80 respondents). The sampling technique combined non-probability sampling and probability sampling, resulting in 80 active QRIS users.

Data collection was conducted via a structured questionnaire using a four-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree), field observations, and unstructured interviews with merchants and buyers. The research instrument consisted of 20 items covering indicators of benefits (5 items), ease of use (5 items), convenience (5 items), and security (5 items) (Sugiyono, 2020).

Data analysis was conducted using descriptive statistics by calculating the total score for each indicator. The maximum possible score is 4 × 80 = 320, and the minimum score is 1 × 80 = 80. The interpretation of scores is based on Table 1 below.

**Table 1.** Score Interpretation Table

| Score Range       | Predicate          |
|-------------------|--------------------|
| 80 < score ≤ 160  | Strongly Disagree  |
| 160 < score ≤ 240 | Disagree / Neutral |
| 240 < score ≤ 320 | Strongly Agree     |

Source: Sugiyono (2020)

## ANALYSIS AND DISCUSSION

### Respondent Profile

The study included 80 respondents, comprising 49 men (61.25%) and 31 women (38.75%). The respondents' ages ranged from 19 to 50 years, with the majority aged 20–35 years. Respondents included merchants, kios owners, and QRIS service users at various commercial centers in Wamena City. By gender, the majority of respondents were male (43), while the remainder were female (37), as shown in the following Table 2:

**Table 2.** Gender Distribution of Respondents

| No          | Gender | Qty | Percentase |
|-------------|--------|-----|------------|
| 1           | Female | 37  | 46%        |
| 2           | Male   | 43  | 54%        |
| Total Score |        | 80  | 100%       |

Source: Primer Data, 2026

The largest group of QRIS users in Wamena City consists of 34 people aged 26–35, followed by 33 people aged 18–25, 9 people aged 35–41, and 4 people aged 42–50. The age distribution of the respondents is shown in the following Table 3:

**Table 3.** Age Distribution of Respondents

| No    | Age     | Qty | Percentase |
|-------|---------|-----|------------|
| 1     | 18 - 25 | 33  | 41%        |
| 2     | 26 - 35 | 34  | 43%        |
| 3     | 35 - 41 | 9   | 11%        |
| 4     | 42 - 50 | 4   | 5%         |
| Total |         | 80  | 100%       |

Source: Primer Data, 2026

### Benefit Indicators

As shown in Table 4, benefit indicators were measured using five statements related to respondents' knowledge and understanding of QRIS's function as an integrated payment tool. The average benefit indicator score was 286.2, falling within the range of  $240 < \text{score} \leq 320$ , categorized as "strongly agree" (highly beneficial). These findings align with Prawitasari et al. (2024), who assert that perceived usefulness is the primary driver of QRIS adoption, as well as Alifia et al. (2024), who demonstrate the positive impact of QRIS usage on business transaction efficiency.

**Table 4.** Average Scores for Benefit Indicators

| No            | Question   | Score | Criteria       |
|---------------|--|-------|----------------|
| 1             | I know that QRIS is a unified QR code system                         | 291   | Strongly Agree |
| 2             | I understand that QRIS is a QR code for all payment applications     | 290   | Strongly Agree |
| 3             | I am able to use QRIS for payment transactions                       | 290   | Strongly Agree |
| 4             | I am able to identify information related to QRIS                    | 282   | Strongly Agree |
| 5             | I understand that QRIS can be used for various types of transactions | 278   | Strongly Agree |
| Average Score |  | 286.2 | Strongly Agree |

Sources: Primary Data Analysis, 2026

### Ease of Use Indicators

Based on Table 5 below, the average score for the ease of use indicators was 273, falling into the “strongly agree” category (very easy). Respondents rated QRIS as easy to learn, controllable, flexible, and clear and understandable to use. These findings are consistent with Persadha et al. (2024), who found that perceived ease of use is an important antecedent of perceived usefulness, and Tian & Chan (2024), who confirmed ease of use as a significant predictor of mobile payment system acceptance. The relatively high ease of use of QRIS in Wamena indicates that the QRIS interface and transaction procedures are quite intuitive, even for users in areas with limited digital literacy.

**Table 5.** Average Scores for Ease of Use Indicators

| No            | Question   | Score      | Criteria       |
|---------------|--|------------|----------------|
| 1             | Using QRIS is easy to understand and learn                 | 278        | Strongly Agree |
| 2             | The use of QRIS can be controlled                          | 271        | Strongly Agree |
| 3             | The use of QRIS is very flexible                           | 275        | Strongly Agree |
| 4             | It's easier to make transactions using QRIS than with cash | 266        | Strongly Agree |
| 5             | The use of QRIS is clear and easy to understand            | 275        | Strongly Agree |
| Average Score |  | <b>273</b> | Strongly Agree |

Sources: Primary Data Analysis, 2026

### Comfort Indicator

Based on Table 6 below, the comfort indicator received an average score of 235.6, falling within the range of  $160 < \text{score} \leq 240$ , which falls into the “agree” (comfortable) category. This score was the lowest among the four indicators. The low comfort score is believed to be closely related to internet connectivity limitations in Wamena City, which affect the smoothness of transactions using QRIS. This finding aligns with Abdillah Dwi Prasetyo et al. (2026), who found that internet connectivity is an important moderating factor in the adoption of digital payments in remote

areas, as well as (Ligon et al., 2019), who identified infrastructure limitations as the main barrier to the convenience of using digital payments among small merchants.

**Table 6.** Average Scores Comfort Indicators

| No            | Question   | Score        | Criteria       |
|---------------|--|--------------|----------------|
| 1             | I use QRIS every day because it saves time           | 223          | Agree          |
| 2             | I find QRIS easy to use because it works anywhere    | 228          | Agree          |
| 3             | I find QRIS easy to use because I can use it anytime | 232          | Agree          |
| 4             | I use QRIS because it's easy to use                  | 254          | Strongly Agree |
| 5             | I use QRIS because I don't have to wait for change   | 241          | Strongly Agree |
| Average Score |  | <b>235.6</b> | Agree          |

Sources: Primary Data Analysis, 2026

### Security Indicators

As shown in Table 7 below, security indicators received an average score of 283.6, falling into the “strongly agree” category (very secure). Respondents expressed high confidence in the QRIS security system, including guarantees of fund security, identity confidentiality, and personal information protection. These findings align with Prawitasari et al. (2024), who assert that trust in system security is a critical factor in QRIS adoption. The high security score in Wamena indicates that Bank Indonesia’s reputation as the institution developing QRIS has successfully built public trust, even in regions with limited access to information.

**Table 7.** Average Scores for Security Indicators

| No            | Question  | Score        | Criteria       |
|---------------|---|--------------|----------------|
| 1             | Money in QRIS is secure and minimizes the risk of crime   | 283          | Strongly Agree |
| 2             | The buyer's identity is kept confidential when using QRIS | 286          | Strongly Agree |
| 3             | I'm not afraid of thieves because I don't carry cash      | 285          | Strongly Agree |
| 4             | I'm not worried that QRIS will mishandle my information   | 283          | Strongly Agree |
| 5             | I trust that QRIS protects my information                 | 281          | Strongly Agree |
| Average Score |   | <b>283.6</b> | Strongly Agree |

Sources: Primary Data Analysis, 2026

### Summary of QRIS Adoption

Overall, the average QRIS adoption score in Wamena City is 269.6, which falls into the “strongly agree” category. Table 6 summarizes the results for the four indicators. The summary of QRIS Adoption presented in Table 8 below:

**Table 8.** Summary of QRIS Adoption Variables

| Indicators  | Average Scores | Criteria       | Interpretation   |
|-------------|----------------|----------------|--|
| Benefits    | 286.2          | Strongly Agree | QRIS is highly beneficial to adopt                         |
| Ease of use | 273            | Strongly Agree | QRIS is very easy to adopt                                 |
| Comfort     | 235.6          | Agree          | QRIS is convenient to adopt                                |
| Security    | 283.6          | Strongly Agree | QRIS is very secure to adopt                               |
| Average     | 269.6          | Strongly Agree | I strongly agree that the adoption of QRIS should continue |

Sources: Primary Data Analysis, 2026

The findings of this study expand our understanding of QRIS adoption in remote areas of Indonesia. Although Wamena City falls under the 3T region category, its residents have demonstrated a positive level of QRIS adoption. Benefits and security were the most highly valued aspects, indicating that educational efforts regarding the added value of QRIS and the institutional reputation of Bank Indonesia have successfully reached communities in remote areas. Convenience is an area requiring attention, particularly as it is directly linked to limitations in network infrastructure. These findings have important implications: improving internet infrastructure and implementing digital financial literacy programs are crucial strategic steps to drive more optimal QRIS adoption in 3T regions.

## CONCLUSION

This study examines the adoption of the QRIS payment system in Wamena City, Jayawijaya Regency, a 3T region in eastern Indonesia. Based on a quantitative descriptive analysis of 80 respondents, the average QRIS adoption score was 269.6 (strongly agree). The benefit indicator received the highest score (286.2), followed by security (283.6), ease of use (273), and convenience (235.6). The people of Wamena City have generally accepted and adopted QRIS as a payment system with a positive perception, despite being in an area with limited infrastructure. This study has several limitations, including a small sample size and the use of a scoring method. Therefore, the author recommends that future researchers expand the sample size and conduct their analysis using quantitative or qualitative methods.

The implications of this study suggest three strategic recommendations: (1) the government and telecommunications operators need to accelerate the development of internet network infrastructure in Wamena City to enhance user convenience for QRIS; (2) Bank Indonesia and the Indonesian Payment Systems Association (ASPI) need to expand ongoing digital financial literacy and awareness programs for merchants and the general public; and (3) local governments need to encourage more merchants to provide QRIS payment services through incentives and technical assistance. The limitations of this study lie in the use of a descriptive method without inferential analysis and a scope limited to a single city; therefore, further research using a causal approach and covering a broader geographical area is highly recommended.

## REFERENCES

- Abdillah Dwi Prasetyo, Muhammad Khoirul Fikri, & Shaheerbanoo Ijaz. (2026). The Role of Islamic Financial Literacy in Moderating the Relationship between QRIS and Financial Inclusion. *Journal of Islamic Economics and Business Ethics*, 3(1), 102–123. <https://doi.org/10.24235/jiesbi.v3i1.402>
- Alifia, N., Permana, E., & Harnovinsah, H. (2024). Analisis penggunaan QRIS terhadap peningkatan pendapatan UMKM. *Jurnal Riset Pendidikan Ekonomi*, 9(1), 102–115. <https://doi.org/10.21067/jrpe.v9i1.9940>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dwiatma, A. A., & Nuryakin, C. (2025). The Effects of Non-cash Transactions Through Quick Response Indonesian Standard (QRIS) on the Number of MSMEs Workers. *Jurnal Bina Praja*, 17(1), 33–41. <https://doi.org/10.21787/jbp.17.2025.33-41>
- Lau, E. A., & Kulsum, U. (2023). Becoming a Cashless Society: The Role of QRIS from the Z-Generation Student's Perspective. *Journal of Accounting and Strategic Finance*, 6(1), 172–191. <https://doi.org/10.33005/jasf.v6i1.404>
- Ligon, E., Malick, B., Sheth, K., & Trachtman, C. (2019). What explains low adoption of digital payment technologies? Evidence from small-scale merchants in Jaipur, India. *PLOS ONE*, 14(7), e0219450. <https://doi.org/10.1371/journal.pone.0219450>
- Persadha, P. D., Taroreh Johnny, Moridu, I., Sumatyo, F. D. S., Judijanto, L., Lukito, D., & Susanti, M. (2024). Exploring the Factors Influencing E-Wallet Adoption in Indonesia: An Extended Technology Acceptance Model Approach. *Journal of Logistics, Informatics and Service Science*, 11(9), 484–498. <https://doi.org/10.33168/JLISS.2024.0929>
- Prawitasari, D., Dina Badiani, F., Rachmawati, S. D., Ningrum, F. P., Mufidah, N. L., Nuswantoro, U. D., & Airlangga, U. (2024). Qris in Indonesia: a Comprehensive Literature Review on Adoption, Challenges, and Opportunities. *REVENUE : Jurnal Manajemen Bisnis Islam*, 5(1). <https://doi.org/10.24042/revenue.v5i1.22760>
- Rafferty, N. E., & Fajar, A. N. (2022). Integrated QR Payment System (QRIS) : Cashless Payment Solution in Developing Country from Merchant Perspective. *Asia Pacific Journal of Information Systems*, 32(3), 630–655. <https://doi.org/10.14329/apjis.2022.32.3.630>
- Rahmatullah, R. (2025). Digitalisasi Pembayaran: Peran E-Wallet dan Fintech pada Ekonomi Digital. *JURNAL ECONOMINA*, 4(6), 207–213. <https://doi.org/10.55681/economina.v4i6.1560>
- Saragih, Y. W., & Rikumahu, B. (2022). Analisis Faktor Adopsi E-Wallet Gopay, OVO, dan DANA dengan Model UTAUT2 pada Masyarakat Jawa Barat. *Nominal Barometer Riset Akuntansi Dan Manajemen*, 11(1), 98–121. <https://doi.org/10.21831/nominal.v11i1.43075>

- Sihaloho, J. E., Ramadani, A., & Rahmayanti, S. (2020). Implementasi Sistem Pembayaran Quick Response Indonesia Standard Bagi Perkembangan UMKM di Medan. *Jurnal Manajemen Bisnis*, 17(2), 287. <https://doi.org/10.38043/jmb.v17i2.2384>
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R & D*. Alfabeta.
- Syarifah, Ester Rumagit, S., Gunawan, N., Nabillah Azza, F., & Felix Hutasoit, T. (2025). Improving Financial Technology-Based Financial Management for Noken Mama Papuan Artisans in Baliem Jayawijaya Valley. *IJECS: Indonesian Journal of Empowerment and Community Services*, 6(2), 263–274. <https://doi.org/10.32585/ijecs.v6i2.7205>
- Syarifah, S., Muksin, D., & Fadlan, M. (2023). Analisis Faktor Implementasi E-Government Di Kabupaten Jayawijaya Papua. *Journal of Social Politics and Governance (JSPG)*, 5(2), 199–210. <https://doi.org/10.24076/jspg.v5i2.1478>
- Syarifah, S., Winarno, W. W., & Putro, H. P. (2020). Analisis Karakteristik Penggunaan Aplikasi Peer To Peer Lending Fintech dengan Model PCI. *JURNAL MEDIA INFORMATIKA BUDIDARMA*, 4(2), 421. <https://doi.org/10.30865/mib.v4i2.2059>
- Tian, Y., & Chan, T. J. (2024). Predictors of Mobile Payment Use Applications from the Extended Technology Acceptance Model: Does Self-Efficacy and Trust Matter? *Sage Open*, 14(4). <https://doi.org/10.1177/21582440241292525>
- Yasin, A., Masrizal, & Rusanti, E. (2025). Modelling the adoption of QRIS payment method usage among young adults in Indonesia. *Journal of Science and Technology Policy Management*. <https://doi.org/10.1108/JSTPM-09-2024-0364>
- Zeta Chandra, D., Purwana, D., & Amirul Adha, M. (2023). Analisis Strategi Qris oleh KPWBI DKI Jakarta dalam Upaya Pengembangan Pembayaran Non Tunai Pada UMKM Jakarta. *TRANSEKONOMIKA: AKUNTANSI, BISNIS DAN KEUANGAN*, 3(4), 664–673. <https://doi.org/10.55047/transekonomika.v3i4.464>