



Pegadaian's digital innovation: Implementation of the Tring! application as an extension of digital pegadaian

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ABSTRACT

Background: This study focuses on Pegadaian's digital innovation through the implementation of the Tring! application as an extension of Pegadaian's digital services. Digital transformation in the financial industry is a key factor in improving efficiency, accessibility, and the customer experience. The Tring! application serves as an innovative solution to facilitate digital pawn transactions including the pawn process, payments, and asset monitoring in a faster and more transparent manner, while also demonstrating the intrapreneurial capabilities of a state-owned institution responding to digital disruption. **Methods:** This study employs a descriptive qualitative approach, focusing on the analysis of the implementation of digital innovations in the Tring! app. Data were collected through a comprehensive literature review, direct observation of application usage, and in-depth interviews with relevant officials at Pegadaian. **Findings:** The research findings indicate that digital innovations in the Tring! application have successfully improved service accessibility, streamlined the pawn process, and provided interactive features that enhance the user experience. The application also promotes the comprehensive digitization of Pegadaian transactions, reduces reliance on in-person services, and strengthens digital financial inclusion for MSME operators. **Conclusion:** The implementation of the Tring! application is an example of a successful digital transformation in the traditional financial services sector, integrating the spirit of corporate entrepreneurship (intrapreneurship) into the state-owned enterprise ecosystem. The long-term success of this transformation requires support for digital literacy, user guidance, and synergy between digital and conventional services. **Novelty/Originality of this article:** This study provides new empirical evidence on how Pegadaian, as a state-owned financial institution, leverages the Tring! application to integrate intrapreneurship into its digital transformation strategy, specifically in advancing pawn digitalization, financial inclusion, and MSME empowerment in Indonesia, an area not previously examined in existing literature.

KEYWORDS: digital financial services; digital innovation; digital transformation; fintech entrepreneurship; financial inclusion; MSMEs; Pegadaian.

1. Introduction

Amid the accelerating pace of digital transformation, technology-driven financial service innovations have become a strategic factor in driving the growth and sustainability of Micro, Small, and Medium Enterprises (MSMEs) (Morisson & Fikri, 2025). Various studies

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show that the digitization of financial services plays a crucial role in expanding financial inclusion, improving transaction efficiency, and enhancing access to financing for MSMEs, which have long faced limited access to formal financial institutions (Safitri & Putri, 2025). In Indonesia, MSMEs contribute more than 60% of the national Gross Domestic Product (GDP) and employ nearly 97% of the workforce, yet they still face structural challenges such as low financial and digital literacy, limited working capital, and administrative barriers to obtaining financing (Hapiz et al., 2025).

As a state-owned non-bank financial institution, limited liability company or *Perseroan Terbatas* (PT) Pegadaian plays a strategic role in supporting the national financial inclusion agenda by providing financing services that are fast, flexible, and easily accessible to the public. In line with advancements in financial technology, Pegadaian is transforming its services to a digital platform through the development of the Pegadaian Digital Service (PDS) as the first step in the digitization of its services (Mahardika et al., 2025). Several previous studies have shown that PDS can improve service efficiency, speed up transactions, and reduce customers' reliance on in-person services. However, PDS services are still focused on the digitization of internal processes and have not yet been fully integrated into the broader financial ecosystem.

As the demand for more comprehensive and integrated financial services for MSMEs grew, Pegadaian launched the Tring! by Pegadaian application as a further development of PDS (Sopiah & Novianti, 2025). Tring! is designed as a financial super application based on an ultra-micro ecosystem that integrates digital pawnbroking services, SME financing, gold savings, gold installment plans, gold trading, and electronic payment services into a single platform (Rojabi, 2025). The launch of Tring! is also part of the Ultra-Micro Ecosystem (UMi) Holding synergy involving *Bank Rakyat Indonesia* (BRI), Pegadaian, and *Permodalan Nasional Madani* (PNM), thereby opening up opportunities to expand access to digital financial services for the unbanked and underbanked, including MSME operators (Setiawati & Ginting, 2024).

From the perspective of innovation management and corporate entrepreneurship, the launch of Tring! represents more than just a technological update (Riswanto, 2025). This initiative reflects the intrapreneurial capabilities within a long-established government agency namely, the ability to innovate, take calculated risks, and respond to digital disruption in a proactive and market-oriented manner (Quientania et al., 2025). The transformation from PDS to Tring! reflects Pegadaian's shift from being merely a provider of conventional pawnbroking services to becoming an orchestrator of a collaborative digital financial ecosystem, a development consistent with the literature on digital entrepreneurship in state-owned enterprises (Mubarak, 2025).

Although Tring! offers easy access and efficient transactions, the implementation of Pegadaian's digital services still faces challenges in terms of user adoption (Nikmah & Rohana, 2025). The literature on the adoption of financial technology indicates that the success of digital transformation is determined not only by the sophistication of an application's features, but also by user behavior factors, such as digital literacy, perceptions of usefulness and ease of use, levels of trust in digital systems, and societal habits that still tend to favor conventional services. The digital divide in some regions also has the potential to limit the effectiveness of digital financial services for MSMEs (Wahyudin et al., 2025).

Based on the above discussion, there remains a research gap regarding how the transition of Pegadaian's services from PDS to the Tring! application contributes to expanding Small and Medium-sized Enterprises-based (SME-based) financial inclusion, as well as the factors influencing the success of its implementation, particularly from the perspectives of corporate entrepreneurship and innovation management. Therefore, the objective of this study is to analyze the role of Pegadaian's digital transformation through the development of the Tring! by Pegadaian app, focusing on service innovation, the effectiveness of expanding SME financial inclusion, institutional intrapreneurial capabilities, and user behavior in adopting digital financial services.

Digital transformation in the financial sector is understood as a fundamental process of changing the way financial institutions create value through the comprehensive adoption

of digital technology (Rusli et al., 2025). In the context of non-bank financial institutions, digital transformation involves not only process automation, but also restructuring business models and ways of interacting with customers (Mulyawan et al., 2025). Fitri Komariyah emphasized that digital financial inclusion is key to addressing the gap in access to financial services, especially for vulnerable groups and informal business actors (Komariyah & Annisah, 2025).

Technology acceptance theory, particularly the Technology Acceptance Model (TAM) developed by Davis (1989), explains that the adoption of new technology is influenced by two main factors: perceived usefulness and perceived ease of use (Hidayat & Kharismaputra, 2025). In the context of digital financial applications for MSMEs, these two factors are important determinants that determine the level of adoption and sustainability of digital platform use (Andany & Masyhuri, 2026). When digital platforms are able to lower transaction barriers and deliver real economic benefits, adoption rates will increase significantly among small and medium sized businesses.

In addition to the main constructs in the Technology Acceptance Model (TAM), developments in digital transformation studies indicate that external factors such as infrastructure conditions and ecosystem support also play a crucial role in determining the successful adoption of financial technology. The availability of a stable internet network, access to digital devices, and technical support are fundamental prerequisites that influence the extent to which people can optimally utilize digital financial applications. Without adequate infrastructure support, the benefits of technological innovation are often not felt evenly, especially by users in areas with limited digital access (Putri & Wahyuni, 2025).

In addition, the aspect of user experience is also getting more attention in technology adoption studies. Applications that are designed with a simple interface, clear navigation, and an uncomplicated transaction process tend to be easier to accept by users, especially MSME actors who have limited time in managing their business. This convenience contributes to increasing the frequency of use and strengthens users' intention to continue utilizing digital services in the long term (Kurniawan & Saputra, 2025).

Furthermore, the sustainability of the use of financial technology is also influenced by the organization's ability to provide responsive after-sales service. User assistance features, customer service centers, and ongoing education are essential elements to maintain user satisfaction and loyalty. When users feel supported in every stage of application use, the level of trust in the platform will increase and encourage more consistent use (Lestari et al., 2026).

In addition to technical and service factors, changes in people's economic behavior patterns also accelerate the process of digitizing financial services. Small business actors are now increasingly accustomed to application-based transactions because they are considered faster, more transparent, and more efficient than conventional methods. These changes show that digital transformation is not only technological, but also reflects a cultural shift in people's financial management (Firmansyah & Utami, 2025; Putri & Wahyuni, 2025).

Corporate entrepreneurship or intrapreneurship refers to the process by which established companies create new businesses, develop innovations, and strategically renew themselves to maintain competitiveness (Timotius, 2019). In the context of State-Owned Enterprises (SOEs), the intrapreneurial dimension is often realized through the formation of new business units, the development of innovative products, or the development of collaborative digital ecosystems (Wibowo, 2024). This capability is key for state institutions to remain relevant and competitive in the midst of a rapidly changing wave of digital disruption.

Estede et al. (2025) identify four main dimensions in corporate entrepreneurship: product/process innovation, risk-taking, proactivity, and strategic renewal. The launch of Tring! by Pegadaian can be analyzed through these four dimensions, where Pegadaian shows the ability to radically innovate from conventional pawn services towards the orchestration of a super-application-based digital financial ecosystem (Rohana & Khairunnisa, 2025; Rojabi, 2025). This initiative reflects that even SOE institutions that have

been established for more than a century are able to transform themselves into agile and innovative digital actors through strengthening intrapreneurial capabilities.

The application of corporate entrepreneurship in the development of Tring! shows a change in organizational work patterns that increasingly emphasize collaboration between units and the integrated use of technology. The development process of this platform is not only the responsibility of the information technology unit, but also involves the synergy of various business functions such as financing, gold services, and digital payment systems. The integration across units shows that innovation in modern organizations no longer runs in isolation, but is formed through thorough coordination in a single work ecosystem.

In addition, this transformation also reflects the organization's response to changes in consumer behavior that increasingly prioritizes fast, easy, and connected digital services in one platform. The change in user expectations encourages Pegadaian to not only make adjustments, but also actively create innovations that suit the needs of the dynamic market. Thus, intrapreneurship serves as a strategic approach that allows organizations to be more adaptive in dealing with changes in the business environment.

In addition to the internal factors of the organization, the success of the development of Tring! It is also influenced by the role of leadership in driving the innovation agenda. Support from top management is an important element in ensuring that digital transformation can run consistently and in a targeted manner. This shows that Tring! Not only is it the result of the development of technological products, but it also reflects the change in organizational culture towards a more flexible, collaborative, and innovation-oriented work system to face competition in the digital financial sector.

Digital financial inclusion is defined as the use of digital financial services that are affordable and responsible for meeting the needs of groups that have not been served (Aswirah et al., 2024; Wulandari et al., 2025). In the UMi ecosystem, the collaboration between BRI, Pegadaian, and PNM is designed to reach the ultra-micro segment that has been beyond the reach of conventional banking (Kurniawan, 2025). This institutional synergy is the strategic foundation for expanding more inclusive and equitable access to finance throughout Indonesia.

Salehaman et al. (2026) found that the digitization of Sharia Pegadaian services is able to improve service efficiency, speed up the process of disbursing funds, and reduce administrative obstacles that are often obstacles for small businesses. These findings are in line with research by Mariyani & Arifin (2025) which highlights the role of Pegadaian in expanding Islamic financial inclusion in Indonesia through MSME-friendly digital platforms. The digitization of Pegadaian services thus not only increases operational efficiency, but also contributes significantly to the economic empowerment agenda of grassroots communities.

In addition, the strengthening of digital financial inclusion is also greatly influenced by the readiness of infrastructure and the level of people's ability to use technology. Although the UMi ecosystem has provided wider access to financial services through digital platforms, the benefits will not be optimal if users do not have an adequate understanding of the features and how to use these services. Therefore, the digital literacy gap between regions is still an important challenge in ensuring equitable distribution of financial inclusion benefits.

On the other hand, the digitization of services has also changed the pattern of relationships between financial institutions and customers. Interactions that were previously carried out in person have now shifted to a digital system-based that can be accessed at any time. This change makes the service process faster and more efficient, while helping micro business actors in obtaining more responsive access to financing according to their business needs.

The integration of various services in the UMi ecosystem also provides opportunities for people to manage their finances more flexibly. The availability of services such as financing, gold investment, and digital transactions allows users to have more alternatives in managing their financial conditions. This contributes to increasing household economic resilience and supporting the sustainability of micro businesses in the face of economic

dynamics. In addition, the integration also strengthens financial literacy, encourages more disciplined financial planning habits, and forms more adaptive and long-term oriented financial management behaviors.

The literature on the adoption of financial technology among MSMEs shows that in addition to technical factors, digital trust and social norms play a significant role in shaping usage behavior (Pangestu et al., 2024). Pangestu's research shows that the Tring! facilitate gold investment, accelerate transactions, and encourage increased public interest in technology-based financial services (Purnamasari, 2025). This indicates that good user experience design and a strong institutional reputation are important prerequisites for successful adoption of digital financial applications.

Rustiyana et al. (2025) emphasized the importance of digital literacy in strengthening the impact of digital financial transformation. Without strengthening digital literacy, the adoption of financial technology risks creating a new gap between the tech-literate and non-tech-savvy groups, so that the goal of financial inclusion is not achieved equally. Therefore, Pegadaian's digital transformation strategy needs to be balanced with comprehensive user education and assistance programs, especially for MSME actors in areas that still have limited infrastructure and digital literacy.

2. Methods

First, the data was collected through interviews in-depth interviews with relevant officials at Pegadaian and direct observation of the use of the Tring! and PDS applications, conducted systematically to evaluate the user interface, the comprehensiveness of service features, and transaction workflows in each application module. The interview participants fell into three categories: (a) two digital product development managers directly responsible for the development and launch of the Tring! app; (b) three customer service staff members at branch offices who interact directly with users of digital services; and (c) two SME owners who have used the Tring! application for financing and investment needs.

All informants were purposively selected based on their direct involvement in the development, management, or use of Pegadaian's digital services. Interviews were conducted using a semi-structured approach with open-ended questions to capture authentic institutional perspectives and user experiences. All secondary data was sourced from Pegadaian's official publications, corporate press releases, reputable financial news portals (IDX Channel, CNBC Indonesia, Kompas.com), and scientific journal databases.

The application observation process was coded using a feature evaluation matrix that compared the availability, affordability, and ease of use of each service module between PDS and Tring!. Interview data were transcribed and coded thematically using an open coding approach, followed by axial coding to identify patterns and relationships among themes. Second, the data presented is based on a comprehensive literature review covering scientific journals, academic articles, and institutional reports related to Pegadaian's digital transformation, the UMi ecosystem, and fintech adoption by MSMEs. Third, conclusions were drawn through source triangulation by comparing information from interviews, observations, and literature reviews to ensure the validity of the findings. Methodological triangulation was also applied by cross checking qualitative interview data with secondary quantitative data, such as the number of users and transaction values reported by Pegadaian.

3. Results and Discussion

3.1 *The role of the Tring! application as a digital innovation at Pegadaian*

The Tring! application was developed by Pegadaian as part of its service transformation strategy aimed at creating a more adaptive, efficient, and inclusive system. This innovation is designed to expand access to digital pawnshop services, enabling the public and SME

operators to obtain financing more quickly, securely, and affordably without having to rely entirely on in person services (Fauziyah & Rahayu, 2025). The launch of Tring! on October 8, 2025, marks a new chapter in Pegadaian's digital evolution, one that goes beyond simply migrating conventional services to a digital platform and instead builds a fully integrated financial ecosystem.

Empirical findings in the literature indicate that the expansion of digital channels among non-bank financial institutions contributes to increased access to financing for low income groups. However, this impact is not automatic. Usage rates are heavily influenced by user readiness, particularly financial literacy and digital literacy. In the context of Tring!'s implementation, adoption remains limited in some communities, particularly in rural areas with limited digital infrastructure. Key barriers include insufficient understanding of the app's functions, limited access to devices and internet connectivity in certain areas, and a preference for in person interactions, which are perceived as safer and more trustworthy.

Analytically, this situation confirms that technological innovation must be accompanied by user oriented supporting strategies. The TAM framework (Davis, 1989) explains that perceptions of convenience and benefits are key determinants in the decision to adopt digital services. Therefore, the success of Tring! is determined not only by the sophistication of its features, but also by education, guidance, and the seamless integration of digital and conventional services. Pegadaian must ensure that the introduction of Tring! does not create a new divide between tech-savvy customers and those who are not, but rather serves as a bridge that narrows the financial access gap.

3.2 Pegadaian's digital transformation in expanding access to capital for small businesses

The digital transformation of Pegadaian's services, particularly through the development of the Pegadaian Digital Service (PDS), demonstrates Pegadaian's strategic role in expanding access to financing and financial services for the public, including MSME operators. The PDS application is designed to facilitate various transactions without the need to visit a physical Pegadaian office. Its features include online pawn applications, installment payments, pawn term extensions, and the purchase of other financial products via digital devices, providing users with convenience and transaction efficiency (Yolanda et al., 2025).

The study by Simatupang et al. (2025) proves that the use of the PDS application has been shown to simplify customer transactions, improve service efficiency, and reduce lines at Pegadaian branch offices. A qualitative analysis of PDS usage at Pegadaian branches reveals that digital transformation has led to faster service and easier access to transactions, although there are still some challenges regarding technological literacy among customers (Amelia et al., 2024). This digitalization has also improved operational efficiency at branches, allowing staff to redirect time previously spent on routine transactions toward consultation services that offer greater value to customers.

According to data reported by Parluhutan Situmorang (2025), PT Pegadaian has made significant progress in its ongoing digital transformation. In the first half (January–June) of 2025, more than 10 million digital transactions were recorded, with 215% year-to-date (YTD) growth and a total transaction value of IDR 32 trillion. This achievement reflects the public's high level of trust in Pegadaian's digital services and the growing preference for technology-based financial platforms.

In the context of a people-centered economy, the digitization of Pegadaian's services through the PDS plays a crucial role in expanding access to business capital for the public (Ovianda et al., 2025). The ease of access and transaction efficiency offered enable MSMEs to obtain financing services more quickly and flexibly, so that Pegadaian's digital transformation serves not only as a technological innovation but also as an instrument of economic empowerment that has a tangible impact on enhancing the capacity of small and medium-sized businesses throughout Indonesia.

The institutional structure that underpins the existence of Tring! cannot be separated from the country's financial consolidation policy through the establishment of Ultra Micro

(UMi) Holding. Based on Government Regulation Number 73 of 2021, the Indonesian government integrates three state-owned financial institutions, namely PT BRI as the holding parent, and PT Pegadaian and PT PNM as holding members. This consolidation is not just an ownership reconstruction, but a strategic step to build an inclusive financial ecosystem that is able to serve the ultra-micro segment in an integrated manner.

In this ecosystem, each institution brings its comparative advantages. BRI contributes digital infrastructure through the BRIimo platform with more than 45 million active users, Pegadaian presents a network of pawn and gold savings services that have taken root in the community, while PNM contributes through a community-based microfinance scheme. Ring! by Pegadaian was born as a meeting point of this third strength, a super application that integrates digital pawn services, gold savings, MSME financing, and payments in one platform that can be accessed by all users of the UMi ecosystem. The institutional relationships and service flows in this ecosystem can be seen visually in Figure 1 below:

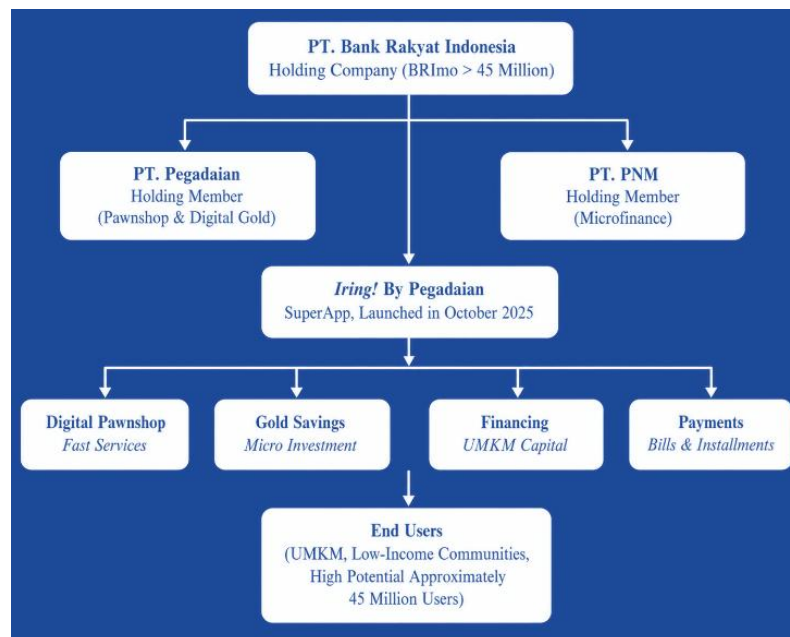


Fig 1. The structure of the Ultra Micro (UMi) holding ecosystem in the implementation of Tring! by Pegadaian

3.3 The Tring! application by Pegadaian as a digital financial inclusion tool for SMEs

The transformation of Pegadaian's financial services through the launch of the Tring! by Pegadaian application on October 8, 2025, is a strategic step toward expanding digital financial inclusion in Indonesia, particularly for communities that are not yet fully served by traditional formal financial institutions. Tring! is a super application that integrates various financial transaction and investment services into a single digital platform, including gold savings, gold installment plans, gold trading, pawnbroking services, digital financing, and electronic payments (IDX Channel, 2025; News, 2025). This comprehensive integration positions Tring! as a one-stop financial solution that addresses the diverse financial needs of SME operators simultaneously.

The launch of Tring! is a collaborative effort by the Ultra-Micro Ecosystem (UMi) Holding, involving BRI, Pegadaian, and PNM, to strengthen national financial inclusion. Through integration with the BRIimo super app, the Tring! application has a massive market base, comprising over 42 million active BRIimo users plus more than 4 million current Pegadaian digital users, bringing the platform's total potential reach to over 45 million users across Indonesia (IDX Channel, 2025). This cross-SOE collaboration is a strategic breakthrough that allows each entity to leverage the strength of the shared ecosystem to reach market segments that have been difficult to reach individually.

Based on data reported by Media (2025), initial estimates indicate that Tring! has successfully reached hundreds of thousands of users in just a short time since its soft launch, with total transactions reaching IDR 1.5 trillion during the platform's initial operational period. This reflects the public's positive response to the integration of this new digital financial service, while also indicating that SMEs and the general public are beginning to adopt this service as part of their business capital management and investment strategies. This rapid initial adoption also demonstrates that public trust in the long established Pegadaian brand has served as a key catalyst for the acceptance of its new digital platform.

Tring!'s strengths lie not only in its large user base and high transaction volume, but also in its user-friendly design, which eliminates traditional administrative hurdles. Comprehensive features within a single application open opportunities for SME owners to access business capital through digital services, invest in gold, and manage business cash flow efficiently without having to visit a physical branch (Adite & Pancawati, 2026). Within the framework of a people-centered economy, the existence of Tring! demonstrates the role of digital technology as an empowerment tool that expands economic opportunities for people from all walks of life, particularly the lower-middle class. The digitization of financial services enables MSME actors to have greater access to formal financial institutions, thereby contributing to narrowing the financial access gap between urban and rural communities (Purnamasari et al., 2025).

The existence of Tring! shows a change in Pegadaian's approach in providing financial services that increasingly focuses on user experience and needs. If in the previous model people had to access various financial products through separate services, now various financial needs can be met through one integrated digital platform. The combination of pawn services, gold investment, financing, and payment transactions in one application provides greater convenience for users. For MSME actors who often face time constraints in managing their business, simplifying the transaction process is an added value that can increase interest in using digital financial services in a sustainable manner (Zainuddin et al., 2025; Adite & Pancawati, 2026).

In the context of strengthening the digital economy, Tring! It also has the potential to contribute to improving people's financial literacy. The various features available allow users to obtain information about financial products, calculate financing needs, monitor transaction activities, and understand available investment alternatives. The ease of obtaining this information can help people develop their ability to manage finances in a more planned and responsible manner. In addition, easier access to formal financial services has the potential to reduce dependence on informal sources of financing that often lack certainty and protection for users (Nikmah & Rohana, 2025; Purnamasari et al., 2025).

From the perspective of MSME development, the integration of services offered by Tring! creating opportunities for business actors to manage their financial needs more comprehensively. The ease of obtaining access to financing can help maintain smooth business operations, while the gold investment feature provides a relatively stable alternative to storing value. The combination of these two functions allows MSME actors not only to meet short-term capital needs, but also to build financial strategies that are more oriented towards business sustainability. Thus, this application plays a role not only as a means of digital transactions, but also as a support for strengthening the economic capacity of the community (Mok & Zaki, 2025; Sugiyanto & Rahman, 2025).

Although it offers a variety of benefits, the effectiveness of Tring! still depends on the readiness of the supporting ecosystem. Strengthening digital literacy, improving service security, and equitable distribution of technology infrastructure are factors that determine the level of application utilization by the public. Not all users have the same ability to adopt new technologies, so continuous educational efforts are needed to ensure that digital transformation can be enjoyed equally. Therefore, Tring's success! It is not only measured by the number of users or the value of transactions generated, but also by its ability to expand access to finance, improve the quality of community financial management, and support the growth of MSMEs in an inclusive and sustainable manner.

Table 1. Comparative analysis of Pegadaian's PDS and Tring! programs in supporting MSMEs

Comparative aspects	Pegadaian digital service (PDS)	Tring! By Pegadaian
Application status	Pegadaian's first-generation digital application	Pegadaian's latest-generation super app
Release date	Before 2025 (to be rolled out in phases)	Officially launched on October 8, 2025
Service concept	Pawn and payment transaction application	Ultra micro financial ecosystem super app
Service coverage	Online pawnbroking, installment plans, renewals, purchase of pegadaian products	Digital pawnbroking, sme financing, gold savings, gold installment plans, gold trading, electronic payments
Ecosystem integration	Standalone (Pegadaian's internal services)	Integrated with the UMi holding (BRI-Pegadaian-PNM) and BRIMO
User segmentation	Approximately 4 million Pegadaian digital users	Potential user base of over 45 million (Brimo + Pegadaian Digital)
Digital transaction value	Reaching IDR 32 trillion (first half of 2025)	IDR 1.5 trillion in the initial phase (soft launch)
The role of financial inclusion	Expanding digital access to pegadaian services	Strengthening digital financial inclusion centered on SMEs
Convenience for SMEs	Efficient transactions and financing applications	One-stop financial solutions for financing and investment
Technological innovation	Digitization of conventional service processes	Integration of financial, investment, and payment services into a single app
Strategic value	Optimization of pegadaian services	Instruments for the economic empowerment of the people and SMEs

The data in Table 1. shows a significant difference between PDS, as the first generation of Pegadaian's digital services, and Tring!, as the latest-generation super app. While PDS played a role in building a digital foundation and familiarizing customers with online transactions, Tring! has taken a far more ambitious step by integrating a cross-institutional financial ecosystem. This shift reflects the evolution of Pegadaian's intrapreneurial strategy from internal optimization toward the orchestration of a broader and more inclusive ecosystem.

Table 2. Statistics on the implementation of the Tring! application by Pegadaian in supporting financial inclusion for MSMEs

No	Indicator	Statistical data	Implications for MSMEs and the economy	Source
1.	Year of the Tring! application launch	2025	Start of implementation of the Pegadaian super application for digital finance	Pegadaian.co.id
2.	Number of early Tring! users	± 450,000 users	Indicates early adoption of digital financial services by the public and SMEs	Jawapos.com
3.	Target number of users	4 million users	Strategy for expanding national digital financial inclusion	Finansial.bisnis.com
4.	Active BRImo users (UMi ecosystem)	> 45 million users	Expanding Pegadaian's service reach to micro and small businesses	Bri.co.id

5.	Total potential Tring! Users	> 45 million users	Expansion of Pegadaian's service coverage to micro and small businesses	Antaranews.com
6.	Tring!'s initial transaction value	± IDR 1.5 trillion	Reflects economic activity and the use of productive services	Cnbcindonesia.com
7.	Key features supporting MSMEs	Digital pawnbroking, financing, gold savings, installment plans	Supporting MSMEs' access to capital, business liquidity, and financial management	Kumparan.com

The statistical data in Table 2 confirms the significance of the Tring! implementation in the context of digital financial inclusion. The relatively large number of early users and transaction values during the initial launch phase indicate that Pegadaian's digital services have been actively utilized in productive economic activities. The integration of Tring! with the Ultra Micro Holding ecosystem further strengthens the reach of financial services to micro and small business owners, positioning this platform as a financial inclusion instrument with the potential to transform the landscape of SME financing in Indonesia.

The high number of users in the early phase of the launch of Tring! shows that there is a fairly good level of acceptance from the public for digital financial services developed by state financial institutions. This indicates that the trust factor in institutions is one of the main drivers in the adoption process, especially for users who were previously cautious in using technology-based services. Pegadaian's reputation as an institution that has been present in the financial sector for a long time also contributes to the sense of security and confidence of users in trying the new service.

In addition, the intensity of transactions in the early stages also shows that Tring! Not only is it used as a medium of access to information, but it has been used in real terms to support economic activities. This condition reflects a change in user behavior patterns that are starting to shift from conventional services to more practical and fast digital systems. For MSME actors, this change can have a positive impact in the form of ease of managing cash flow, accelerating the financing process, and increasing access to digital investment instruments such as gold. In addition, Tring! with the Ultra Micro Holding ecosystem, expanding the reach of formal financial services to segments of society that were previously difficult to reach by the traditional banking system. Thus, Tring! It is not only positioned as a technological innovation, but also as a strategic means in strengthening financial inclusion and encouraging a wider and sustainable equitable distribution of access to financial services.

3.4 The intrapreneurial dimension of the launch of Tring! By Pegadaian

An analysis of the launch of Tring! through the corporate entrepreneurship framework reveals that Pegadaian has internalized substantial intrapreneurial capabilities in response to the pressures of digital disruption in the financial sector. As a state-owned institution that has been operating for over a century, Pegadaian's ability to transform from a provider of conventional pawnbroking services into an orchestrator of a super application ecosystem is an intrapreneurial achievement worthy of attention. This transformation did not occur overnight; rather, it is the result of long term investment in the development of digital capabilities, the strengthening of technology human resources, and the building of cross-institutional strategic partnerships.

Drawing on the framework by Estede et al. (2025), which identifies four key dimensions of corporate entrepreneurship, the launch of Tring! can be interpreted as a concrete manifestation of all these dimensions simultaneously. First, from the product innovation dimension, the transition from PDS to Tring! marks a radical shift in Pegadaian's

business model. Second, from the dimension of calculated risk-taking, the decision to integrate the ecosystems of three state-owned enterprises into a single platform is a bold move involving high levels of technical, regulatory, and institutional coordination complexity. Third, Pegadaian's proactivity is reflected in its decision to reach the unbanked and underbanked segments digitally before private fintech companies achieved dominant market penetration. Fourth, strategic renewal is demonstrated through a fundamental shift in Pegadaian's institutional identity.

Table 3. The intrapreneurial dimension in the development of Tring! By Pegadaian

Intrapreneurial dimensions	Manifested in Tring! By Pegadaian
Product innovation	The evolution from a standalone pawnbroking application (PDS) into an integrated financial super application that offers pawnbroking, gold investment, sme financing, and electronic payments all on a single platform
Calculated risk-taking	The launch of the UMi ecosystem involves cross-SOE integration (BRI, Pegadaian, PNM) with high levels of technical and regulatory complexity, as well as institutional coordination
Proactive approach	Reaching unbanked and underbanked segments digitally before private fintech companies gain dominant market share in those segments
Internal autonomy	Pegadaian's digital team has been given the mandate to independently develop new products within the institutional framework of a state-owned enterprise
Competitive update	A transformation of identity from a 'pawnshop' to a 'facilitator of the people's digital financial ecosystem,' expanding Pegadaian's value proposition and relevance in the digital age

Table 3 systematically maps how each intrapreneurial dimension manifests itself in the context of Tring!'s development. From the product innovation dimension, the transition from PDS to Tring! marks a radical shift in the business model: from a standalone pawnshop application to an integrated financial platform that comprehensively serves ultra-micro needs. From the risk-taking dimension, the decision to integrate the ecosystems of three state-owned enterprises (BRI, Pegadaian, PNM) into a single platform was a bold move involving high levels of technical and regulatory complexity as well as institutional coordination (Rochmayanto et al., 2023).

Pegadaian's proactivity is reflected in its decision to reach the unbanked and underbanked segments digitally before private fintech companies gained dominant market share in those segments. Meanwhile, strategic renewal is demonstrated through the shift in Pegadaian's institutional identity from merely a 'digital pawnshop' to a 'technology-based people's financial ecosystem,' which significantly expands Pegadaian's value proposition and relevance in the digital era (Ovianda et al., 2025). This identity transformation is not merely a rebranding exercise but reflects a fundamental shift in how Pegadaian views its role within the national financial ecosystem and its commitment to the economic empowerment of the community.

The development of Tring! also demonstrates that intrapreneurship practices within public institutions not only generate product innovation but also encourage cross-institutional collaboration to build a broader service ecosystem. The integration of financing, investment, and transaction services within a single platform demonstrates the organization's ability to respond to changing user needs and the dynamics of economic digitalization. This indicates that Pegadaian is increasingly adaptive in identifying new market opportunities, while strengthening its role in supporting financial inclusion and broader community economic empowerment.

3.5 User behavior factors in the successful implementation of the Pegadaian digital application

The success of the implementation of Pegadaian's digital application is heavily influenced by user behavior, particularly in the context of digital financial service adoption by MSMEs. Research by Nikmah & Rohana (2025) in a journal article titled 'The Use of the Tring! by Pegadaian Application in Facilitating Gold Investment for Pegadaian UPC Segiri Samarinda Customers' shows that the use of this application simplifies gold investment, speeds up and streamlines transactions, and encourages increased public interest in technology-based financial services. This study concludes that the implementation of financial technology through the Tring! application plays a crucial role in enhancing the public's financial literacy and encouraging their participation in a sustainable digital economic ecosystem.

Research by Ambari et al. (2024) shows that the PDS application greatly assists customers in conducting transactions. The availability of this application makes it easier for customers who do not have much time to visit a Pegadaian office in person, with a relatively simple registration process thanks to clear instructions. These findings suggest that simplifying the onboarding process is a critical factor in driving early adoption among user groups who are not yet familiar with digital financial services.

Sugiyanto & Rahman (2025) demonstrate that business operators and regulatory authorities can help accelerate the transformation of Pegadaian toward a sustainable digital system. Mok & Zaki (2025) demonstrate that through pawnbroking services, microfinance for MSMEs, and gold savings, Pegadaian makes a significant contribution to enhancing financial inclusion and strengthening the community's economy. The synergy between product innovation, regulatory support, and public trust in the pawnshop institution serves as the three main pillars underpinning the success of this digital transformation.

Recent empirical studies show that perceptions of economic benefits and transaction efficiency are key determinants in the use of digital financial applications by micro and small businesses. When applications are able to expedite access to financing and simplify transaction processes, adoption rates tend to increase significantly. In addition to perceived benefits, ease of use and digital trust also play an important role in shaping the intention for continued use. A simple interface design, data security guarantees, and a strong institutional reputation have been shown to increase user trust in digital financial platforms (Zainuddin et al., 2025).

Social factors and technology usage habits also contribute to the successful implementation of digital applications: MSME operators tend to adopt financial technology when application usage has become the norm within the business community and is supported by the positive experiences of other users. As usage habits take root, the Pegadaian Digital application has the potential to improve financial literacy, expand financial inclusion, and sustainably strengthen the people's economy. However, this effort requires a long term commitment from Pegadaian to not only provide advanced technological features but also ensure that the supporting ecosystem ranging from digital infrastructure, educational programs, to after-sales services is available and accessible to all segments of society, including those in remote areas with limited internet access.

Furthermore, the Tring! application has the potential to have a broader impact than simply facilitating financial transactions. Through integrated digital features, the application can help users develop better financial management habits, such as monitoring payment obligations, managing gold assets, and planning financing needs in a more structured manner. In the long term, these capabilities can improve the quality of financial decision making among MSMEs and strengthen their business resilience to various economic risks.

From a technology adoption theory perspective, Tring!'s success can be explained by a combination of perceived usefulness, perceived ease of use, and user trust in the system. These three factors interact to shape the decision to use the application continuously. Therefore, Pegadaian needs to focus not only on developing technological features but also on improving digital literacy, cybersecurity education, and providing responsive support

services. With the support of a strong ecosystem, Tring! has the potential to become a strategic instrument in expanding financial inclusion, strengthening the competitiveness of MSMEs, and supporting Indonesia's sustainable digital economic transformation agenda.

In addition to the factors already explained, the sustainability of Tring!'s use is also largely determined by the platform's ability to create a consistent user experience that is relevant to the daily needs of MSMEs. Apps that can provide quick solutions to daily financial challenges, such as sudden liquidity needs or managing business cash flow, will be more easily retained in the long term. In this context, personalized service features and data-driven recommendations can provide added value, strengthening user engagement with the platform.

On the other hand, the dynamics of changing digital behavior also indicate that users increasingly expect services that are not only functional but also easily accessible and offer minimal technical barriers. Therefore, Tring!'s success depends not only on product innovation but also on the ability to maintain system stability, accelerate service response, and ensure comprehensive transaction security. Challenges such as the digital divide and varying levels of user literacy need to be continuously addressed to prevent hindering broader adoption. Thus, strengthening an adaptive and user-oriented supporting ecosystem is the main key to Tring!'s continued development as a sustainable and inclusive digital financial platform.

4. Conclusions

The digital transformation undertaken by PT Pegadaian through Pegadaian Digital Service (PDS) and its evolution into the Tring! by Pegadaian application demonstrates a strategic move to address the need for financial services that are more inclusive, efficient, and adaptable to technological advancements. This digitalization is not only focused on improving the institution's operational efficiency but also plays a crucial role in expanding access to financing and financial services for the public, particularly SMEs that have long faced limited access to formal financial institutions.

The findings of the discussion indicate that PDS serves as the initial foundation for Pegadaian's digitalization, with a focus on facilitating transactions and accelerating pawnshop services; however, limitations in service coverage and ecosystem integration mean its impact on strengthening SMEs remains short-term. Further development through the Tring! application offers a more comprehensive approach with the concept of a financial super application based on an ultra-micro ecosystem integrated with BRI and PNM, expanding service reach, increasing the potential user base to over 45 million people, and providing a wider variety of financial solutions for SMEs.

From a corporate entrepreneurship perspective, the launch of Tring! demonstrates tangible intrapreneurial capabilities within an established state-owned institution. Referring to the framework by Estede et al. (2025), Pegadaian has successfully internalized the four dimensions of innovation entrepreneurship product innovation, calculated risk-taking, proactivity, and strategic renewal in responding to the pressures of digital disruption. This transformation positions Pegadaian not merely as a pawnbroking service provider, but as a strategic actor within Indonesia's digital financial ecosystem that makes a tangible contribution to the national financial inclusion agenda. Although Tring!'s initial adoption rate showed a positive response with over 450,000 users and transactions totaling IDR 1.5 trillion in the early phase its effectiveness is heavily influenced by user behavior factors, such as perceived utility, ease of use, trust levels, and digital literacy. Barriers such as the digital divide, a preference for in-person services, and limited technological understanding remain challenges that need to be addressed so that Pegadaian's digital transformation can proceed optimally and sustainably.

Overall, Tring! by Pegadaian can be viewed as a strategic tool for strengthening digital financial inclusion and empowering MSMEs in Indonesia. The long-term success of this innovation requires sustained support in the form of digital literacy education, user

guidance, and synergy between digital and conventional services. With this holistic approach, Pegadaian's digital transformation has the potential not only to improve access to financing but also to drive more equitable and sustainable grassroots economic growth across all corners of Indonesia.

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References

Adawiyah, S. R. (2018). The implementation of sharia gold pawning as an alternative financing in Bandar Lampung. *Pactum Law*, 1(2), 155–163.

- <https://doi.org/10.36987/jumsi.v1i4.2701>
- Adite, K. A., & Pancawati, N. L. P. A. (2025). Pengaruh kemudahan transaksi dan kepuasan nasabah terhadap penggunaan aplikasi Tring by Pegadaian. *Jurnal Economic Resource*, 9(1), 537–546. <https://doi.org/10.57178/jer.v9i1.2105>
- Afrizal, M. (2025). Transformasi digital: Meningkatkan keberlanjutan UMKM melalui digitalisasi keuangan. *JIIIC: Jurnal Insani Intelek Cendekia*, 2(2), 2914–2922. <https://jicnusantara.com/index.php/jiic/article/view/2541>
- Ambari, M. E., Menne, F., & Said, M. (2024). Penerapan sistem aplikasi Pegadaian Digital Service dalam memudahkan pencatatan transaksi pada PT Pegadaian (Persero) CP. Bontobahari Kabupaten Bulukumba. *ACCESS: Journal of Accounting, Finance and Sharia Accounting*, 2(2), 83–90. <https://doi.org/10.56326/access.v2i2.2868>
- Amelia, H., Apriani, E. S., & Finanto, H. (2024). Analisis penerapan layanan aplikasi Pegadaian Digital Service (PDS) dalam kemudahan bertransaksi. *Jurnal Mahasiswa Akuntansi Poltekba (JMAP)*, 6(3), 83–90. <https://ejournal.poltekba.ac.id/index.php/jmap/article/view/473>
- Arner, D. W., Barberis, J., & Buckley, R. P. (2020). The evolution of fintech: A new post-crisis paradigm? *Georgetown Journal of International Law*, 47(4), 1271–1319. <https://dx.doi.org/10.2139/ssrn.2676553>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2018). The Global Findex Database: Measuring financial inclusion. *World Bank Economic Review*, 32(1), 1–12. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/453121468331738740>
- Fauziyah, N. N., & Rahayu, A. P. (2025). Pendampingan nasabah dalam pemanfaatan layanan digital Pegadaian untuk meningkatkan aksesibilitas pembiayaan di Pegadaian Kalibaru Banyuwangi. *Jurnal Penelitian Nusantara*, 1(3), 793–798. <https://doi.org/10.59435/menulis.v1i3.192>
- Gabor, D., & Brooks, S. (2017). The digital revolution in financial inclusion: International development in the fintech era. *New Political Economy*, 22(4), 423–436. <https://doi.org/10.1080/13563467.2017.1259298>
- Handiko, T. D., Putri, S. W., Mutiarasari, N. A. G. (2025). Pengaruh persepsi kemudahan, kepercayaan konsumen dan literasi digital terhadap keputusan penggunaan aplikasi Pegadaian di cabang Benteng. *E-Proceeding of Management*, 12(6), 7087–7100. <https://openlibrarypublications.telkomuniversity.ac.id/index.php/management/id/article/view/29010>
- Herse, M., Sibarani, Z., & Zaki, H. (2025). Peran Pegadaian dalam perekonomian Indonesia sebagai solusi keuangan terpercaya untuk masyarakat. *Jurnal Ilmiah Mahasiswa Merdeka EMBA*, 5(2), 810–815. <https://jom.umri.ac.id/index.php/emba/article/view/1513>
- IDX Channel. (2025). BRI Group luncurkan Tring! by Pegadaian, super application emas digital untuk inklusi keuangan. *IDXChannel.com*. <https://www.idxchannel.com/banking/bri-group-luncurkan-tring-by-pegadaian-super-app-emas-digital-untuk-inklusi-keuangan>
- Investortrust.id. (2025). Pegadaian catat 10 juta transaksi digital pada semester I 2025, tabungan emas jadi primadona. *Investortrust.id*. <https://investortrust.id/business/71473/pegadaian-catat-10-juta-transaksi-digital-pada-semester-i-2025-tabungan-emas-jadi-primadona>
- Kompas.com. (2025). Luncurkan aplikasi Tring!, Pegadaian bidik 4 juta pengguna sampai akhir tahun. *Kompas.com*. <https://money.kompas.com/read/2025/10/08/135745626/luncurkan-aplikasi-tring-pegadaian-bidik-4-juta-pengguna-sampai-akhir-tahun>
- Lailiyah, E. H., Zulyanti, N. R., Fajri, M. B., Syah, I., & Abdullah, A. H. (2025). Digital financial inclusion and access to financing for MSMEs: A case study of MSMEs in the creative sector in Lamongan. *Journal of Artificial Intelligence and Digital Business (RIGGS)*, 4(4), 2292–2298. <https://doi.org/10.31004/riggs.v4i4.3705>
- Lestari, D. A. (2025). Optimalisasi Kredit Angsuran Fidusia (KREASI) Pegadaian dalam

- mendorong pengembangan usaha nasabah. *Jurnal Strategi dan Inovasi Bisnis (JSIB)*, 1(1), 1–12. <https://jurnal.stieyapisdampu.ac.id/jsib/article/view/23>
- Mahasa, H. A., & Nawangsari, A. T. (2025). Persepsi dan praktik pengelolaan keuangan UMKM di Surabaya pada era transformasi digital. *Jurnal Syntax Imperatif: Jurnal Ilmu Sosial dan Pendidikan*, 6(5), 1262–1275. <https://doi.org/10.54543/syntaximperatif.v6i5.843>
- Mariyani, M., & Arifin, S. (2025). Peran Pegadaian Syariah dalam pengembangan inklusi keuangan syariah di Indonesia. *Jurnal Ekonomi Bisnis Manajemen dan Akuntansi (JEBISMA)*, 3(2), 99–111. <https://doi.org/10.70197/jebisma.v3i2.163>
- MetroTV News. (2025). Perluas inklusi keuangan, BRI Group hadirkan super application emas digital dengan Tring! by Pegadaian. *MetroTVNews.com*. <https://www.metrotvnews.com/read/kj2CEVn6-perluas-inklusi-keuangan-pegadaian>
- Nikmah, R., & Rohana, S. (2025). Penggunaan aplikasi Tring! by Pegadaian dalam mempermudah investasi emas pada nasabah Pegadaian UPC Segiri Cabang Samarinda. *Madaniya*, 6(4), 2894–2904. <https://doi.org/10.53696/27214834.1518>
- Nurhayati, F., Yandi, L., Sausan, N. S. Q., & Malik, A. (2025). Inovasi produk dan digitalisasi layanan pada Pegadaian Syariah di era ekonomi digital. *Jurnal Ilmiah Ekonomi dan Manajemen (JIEM)*, 3(5), 175–186. <https://doi.org/10.61722/jiem.v3i5.4632>
- Ovianda, M. R., Suhaety, Y., & Asmawati, A. (2025). Efisiensi dan efektivitas aplikasi Pegadaian Digital Service (PDS) dan aplikasi Agen dalam mewujudkan pelayanan prima. *Paradoks: Jurnal Ilmu Ekonomi*, 8(4), 609–625. <https://doi.org/10.57178/paradoks.v8i4.1878>
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003>
- Ozili, P. K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, 50(4), 457–479. <https://doi.org/10.1080/07360932.2020.1715238>
- Perdana, P. N., Ngirfan, A., Rahmayani, M. W., Heryah, N., Zarkasyi, M. W., Winarningsih, S., & Sukmadilaga, C. (2024). Inclusive financial empowerment for MSMEs: Strengthening capacity for sustainable growth through digital financial literacy and financing. *Jurnal Pemberdayaan Masyarakat Madani (JPMM)*, 8(2), 44–57. <https://doi.org/10.21009/IPMM.008.2.06>
- Putra, K. W. S., & Lasmi, N. W. (2025). Boosting MSMEs: How digital financial innovation and financial literacy fuel access to finances. *IQTISHADUNA: Jurnal Ilmiah Ekonomi Kita*, 14(1), 72–93. <https://doi.org/10.46367/iqtishaduna.v14i1.2320>
- Putri, H. (2022). Digitalisasi layanan Pegadaian dan dampaknya terhadap akses pembiayaan UMKM. *Jurnal Keuangan dan Perbankan*, 26(3), 412–426. <https://doi.org/10.62097/al-tsaman.v4i01.1682>
- Rochmayanto, Y., Nurrochmat, D. R., Nugroho, B., Darusman, D., Satria, A., Casse, T., Erbaugh, J. T., & Wicaksono, D. (2023). Devolution of forest management to local communities and its impacts on livelihoods and deforestation in Berau, Indonesia. *Heliyon*, 9(5), e16115. <https://doi.org/10.1016/j.heliyon.2023.e16115>
- Rukiah, R. (2025). The contribution of Sharia investment instruments to economic development in Indonesia: Opportunities and challenges of precious metals. *Nomico*, 2(11), 80–90. <https://doi.org/10.62872/8hbg1v81>
- Sahrir, S. S., Sari, E., Sultan, F. S., & Alfarizy, M. R. (2025). Pemanfaatan financial technology dalam pemberdayaan ekonomi masyarakat pelaku usaha: Studi kualitatif di Kota Palopo. *Jurnal Economic Resource*, 8(2), 223–237. <https://jurnal.feb-umi.id/index.php/JER/article/view/1967/1456>
- Simatupang, M. P. A., & Dwiridotjahjono, J. (2025). Pengaruh digitalisasi pelayanan melalui Pegadaian Digital Service (PDS) terhadap efektivitas pelayanan transaksi di PT. Pegadaian Cabang Basen Yogyakarta. *Jurnal Studi Administrasi Bisnis*, 1(2), 618–625. <https://jsinabis.upnjatim.ac.id/index.php/jsinabis/article/view/191>
- Sugiyanto, Q. T., & Rahman, T. (2025). Digitalisasi layanan Pegadaian: Analisis sistematis literatur tentang inovasi dan transformasi. *Jurnal Ekonomi dan Keuangan Islam*, 7(2).

- <https://doi.org/10.62097/al-tsaman.v7i02.2332>
- Wibowo, S., & Lestari, E. (2020). Literasi keuangan dan pemanfaatan layanan keuangan digital pada UMKM. *Jurnal Manajemen dan Kewirausahaan*, 22(1), 38–49.
- Yolanda, N., Meryanna, Clevea, A., & Hammamzaki, S. (2025). Penggunaan aplikasi Pegadaian Digital Service dalam memudahkan transaksi nasabah pada PT. Pegadaian (Persero) Pekanbaru. *Jurnal Ilmiah Mahasiswa Merdeka EMBA*, 5(2), 843–848. <https://jom.umri.ac.id/index.php/emba/article/view/1517>
- Zainuddin, M., Andriani, A., & Mutaqin, A. (2025). Convergensi finansial syariah: Sinergi emas, inklusi digital, dan ketahanan sosial-ekonomi dalam praktik Pegadaian Syariah: (Islamic financial convergence: Gold synergies, digital inclusion, and socio-economic resilience in Islamic pawnshop practices). *Al-Muhasib: Journal of Islamic Accounting and Finance*, 5(1), 1–20. <https://doi.org/10.30762/al-muhasib.v5i1.2233>

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