

# EVALUATION OF SMART FINANCING IN THE CONTEXT OF MSMEs IN BARRU REGENCY IN INDONESIA: CHALLENGES AND OPPORTUNITIES

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## Abstract

This research examines the adoption of smart financing technology in the MSMEs sector of Barru Regency, highlighting the factors that influence adoption and the barriers faced, and evaluates the implementation of smart financing for MSMEs in Barru Regency, highlighting the challenges of access to financing and opportunities for financial technology adoption. Using mixed methods, data was collected through surveys and interviews with 310 respondents to understand the perceptions, benefits, and barriers to using smart financing. Using the Diffusion of Innovation Theory (Rogers) approach, this research evaluated five main factors: relative advantage, compatibility, complexity, trialability, and observability. The results showed that the majority of MSMEs recognized the benefits of smart financing in improving efficiency and access to capital (mean = 3.95). However, the main challenges include the complexity of use (mean = 3.99) and the need for digital education (mean = 3.80). Key enabler factors include easy access to capital, government regulations, and social influence from other MSMEs that have successfully used them. There are some significant barriers, such as concerns over data security, high service costs, and limited digital infrastructure. To increase the adoption of smart financing, collaboration between the government, fintech providers, and MSMEs is needed through financial education and strengthening data security regulations. With the right strategy, smart financing has the potential to be an innovative solution for supporting the growth and competitiveness of MSMEs in the digital era.

**Keywords:** Smart Financing, Msmes, Innovation Diffusion, Fintech, Technology Adoption.

## INTRODUCTION

Smart financing is an innovative approach to finance that leverages technology to optimize resource allocation and accelerate access to capital [Trabelsi, M.A. (2024); Arnone, M. (2024)]. In the context of current business models, the evolution of smart financing has some significant potential impacts: Smart financing allows more individuals and small businesses to access financing without having to go through traditional banking procedures, and the lending and investment process becomes faster with the use of blockchain-based smart contracts [Yoo, S. (2017), Kumar, D., et al. (2023), Kayani, U., & Hasan, F. (2024), Karthick, A. & Alamelu, K. (2024)].

Automation in credit scoring and risk management reduces operational costs for financial institutions. Smart financing allows companies to optimize business strategies based on real-time data, making decision-making more accurate [Qin J, Zhu Y., (2024), Kraus, S., et. al (2021), Allioui, H., & Mourdi, Y. (2023)].

Fintech platforms can offer more personalized financial solutions according to users' needs. Platform-based business models such as e-commerce and ride-hailing are increasingly using smart financing to provide instant credit services to their users and partners.

Cryptocurrencies and decentralized finance (DeFi) open up new opportunities in a more open and transparent digital business ecosystem [Metelski, D., & Sobieraj, J. (2022), Shoetan, Philip & Familoni, Babajide. (2024), Chen, Yan & Bellavitis, Cristiano. (2020)]. Data security and regulation remain key challenges in implementing smart financing. Reliance on technology can increase cyber risks and algorithm manipulation. The evolution of smart financing has the potential to fundamentally change the business landscape by making it faster, more flexible, and data-driven. Businesses that are able to adopt and adapt to these developments will gain a competitive advantage in the digital economy.

The use and acceptance of financial technology in the context of the MSMEs sector has been evaluated, and it was found that the maturity of the sector in accepting and using technology is quite low [Parra-Sánchez, D.T. & Talero-Sarmiento, L.H. (2024); Asif, M., et. al. (2023); Kwarteng, M.A. (2024)]. The adoption and use of financial technology in the MSME sector still faces many challenges. Although fintech and smart financing have grown rapidly, the maturity of the MSME sector in adopting these technologies is still relatively low [Parra-Sánchez, D.T. & Talero-Sarmiento, L.H. (2024); Zamani, S.Z. (2022); Kumar, D., et. al. (2023)]. Many MSME players still do not understand the benefits of financial technology and how to use it effectively.

Distrust of the digital financial system, especially in terms of data security and online transactions [Utami, Novia. (2023)]. Some MSMEs, especially in rural areas, still face limited internet access and adequate technology tools [Zamani, S.Z. (2022)]. Reliance on conventional methods such as cash transactions and manual record keeping remains high [Offiong, U.P., et al. (2024); Putrevu, J. & Mertzanis, C. (2024)].

MSMEs still rely on traditional loans from family, friends, or banks, although the process is more complicated than fintech lending [Arslan, A., et al. (2023); Rauwerda, K. & De Graaf, F.J. (2021)]. Low credit score or absence of financial track record makes it difficult for MSMEs to gain access to smart financing [Kumar, D., et al. (2023); Bhattacharjee, M., et al. (2023)].

Regulations that do not fully support the fintech ecosystem for MSMEs may hinder the adoption of this technology [Saadah, K. & Setiawan, D. (2024); Sharma, V., et al. (2024)]. Some government MSME financing policies still rely more on traditional bank credit schemes [Singh, K. (2024), Saifurrahman, A. & Kassim, S. (2022)]. MSMEs lack confidence in the transparency and reliability of fintechs, fearing fraud or high interest rates. Lack of education by fintech service providers on regarding the benefits and risk mitigation in its use.

Furthermore, if MSMEs can increase their digital maturity in using smart financing, the growth potential of this sector will be even greater, opening wider access to capital and accelerating the development of the digital economy.

While fintech has been growing rapidly globally and MSMEs are benefiting from this innovation, in-depth research on its adoption potential is limited and the direction of analysis is not strong enough. Many studies discuss fintech broadly without sufficient focus on specific applications in the context of MSMEs. The different characteristics of MSMEs across countries and business sectors have not been sufficiently explored in the academic literature. Many studies rely on classical technology adoption models such as TAM (Technology Acceptance Model) or UTAUT (Unified Theory of Acceptance and Use of Technology), but do not adequately adapt them to the realities of MSMEs [Badghish, Saeed & Soomro, Dr. Yasir (2024), Koch, Stefan, et. al. (2011)]. Social, cultural, and behavioral factors of MSME players in adopting smart financing are often ignored [Anatan, L., & Nur. (2023), Istiqomah, A. N., et al. (2023)]. Most of the existing studies are conceptual rather than based on empirical data from MSMEs that actually adopt smart financing [Bassols i Gardella, N. et al. (2024); Kumar, D. et al. (2023)].

Data on the effectiveness of smart financing in improving MSME performance is still minimal [Raj, A., et al. (2024); Rahadjeng, Erna, et. al. (2023)]. The term “smart financing” still has varying definitions in research, covering fintech lending, blockchain finance, AI-based credit scoring, and other automated financing systems. As a result, it is difficult to compare the results of different studies. Many studies tend to focus on developed countries with mature infrastructure [Corsi, S. & Bianchi, L. (2024); Lafioune, N., et. al. (2024)]. Studies in developing countries, including Indonesia, are limited and often do not consider local factors such as regulation, business culture, and financial literacy.

Next, integrate technology adoption theory with MSME-specific factors such as capital constraints, reliance on cash transactions, and level of digital literacy. Survey or case study on MSMEs that have used smart financing to understand the real impact on business growth. Comparison between MSMEs that use and do not use smart financing. Examine how government policies affect the adoption of smart financing among MSMEs. Study the role of financial institutions in encouraging or hindering the use of smart financing. Identify key risks of smart financing, including data security, reliance on technology, and potential misuse of AI systems in lending. Study on how smart financing can be integrated with e-commerce, digital payments, and supply chain financing to improve the competitiveness of MSMEs. By strengthening these research directions, the study of smart financing in MSMEs can provide more in-depth and applicable insights for academics, policymakers, as well as fintech industry players and MSMEs themselves.

Smart financing technology has potential that goes beyond its acceptance as a mere digital financing solution [Sharma, V., et al. (2024); Omol, E.J. (2024)]. However, this potential has yet to be fully explored in the context of the Micro, Small, and Medium Enterprises (MSMEs) sector. One of the main barriers to the adoption of smart financing in this sector is the lack of understanding and assimilation of the working logic of this technology among relevant

professionals. Therefore, the main objective of this study is to expand the scientific research framework regarding the use of smart financing in the MSMEs sector by evaluating previous research as well as academic initiatives that have been undertaken in this area. In addition, this study aims to help MSMEs professionals, academics, and researchers understand the opportunities that smart financing offers and encourage the emergence of new commercial applications that can improve the competitiveness and sustainability of MSMEs in the digital age. By better understanding and exploring the potential of smart financing in the MSMEs sector, this research is expected to serve as a foundation for the development of more innovative and sustainable business models. Thus, smart financing will not only serve as a digital financing tool but also as a key driver in the digital transformation of MSMEs. To achieve the research objectives, our research methodology basically uses a three-step research process. First, a list of challenges to smart financing adoption in the MSME sector was obtained through a literature review. Second, the emerging smart financing is evaluated in general terms and categorized based on the solutions it offers. Third, an analysis is conducted using the diffusion of innovation (DOI) theory [Rogers, Everett, et al. (2019)] to reveal the status of smart financing in the MSME sector. The research questions will be answered: 1. What are the challenges of smart financing technology adoption in the MSME sector? 2. What are the challenges to increasing the use of smart financing in the MSME sector? 3. In the context of innovation diffusion, how are innovation challenges to the decision-making process interrelated?

Based on an evaluation of academic studies, there are 190 publications between 2019 and 2023 that examine the impact of technology and internet development on the MSMEs sector. Previous studies show that the internet, as part of technological advancement, is inseparable from the development of MSMEs in the current digital era. In this context, smart financing is one of the significant technological innovations, as it covers aspects such as data management and sophisticated payment systems. Therefore, it is inevitable that the development of smart financing will have a major impact on the MSMEs sector, both in terms of access to financing and operational efficiency.

This research contributes to the literature by comprehensively identifying the challenges in implementing smart financing in the MSMEs sector. While there are several studies that evaluate the adoption of smart financing in general, studies that specifically focus on MSMEs are limited. To overcome these limitations, this study utilizes the innovation diffusion theory as an analytical framework. The findings obtained in this study are discussed comprehensively to provide a deeper insight into the implementation of smart financing in the MSME sector.

## LITERATURE REVIEW

In general, smart financing is the result of a combination of innovations in fintech, artificial intelligence (AI), big data, and blockchain aimed at creating smarter, faster, and more inclusive financial services [Mhlanga, D. (2020); Eniola, Johnson (2024)]. This concept is not the result of any particular individual or institution but rather evolved as part of the evolution of the financial and technology (fintech) industry. Along with the advancement of financial technology, automation, and AI in the financing system, smart financing continues to transform

to provide more efficient and accessible financial solutions [Giuggioli, G., and Pellegrini, M.M. (2023); Varma, P., et. al. (2022)]. As a form of technology-based financial innovation, smart financing optimizes AI, data analytics, and automation in various financial services [Trabelsi, M.A. (2024); Barile, D., Secundo, G., & Bussoli, C. (2024)]. This concept includes services such as digital lending, crowdfunding, e-payments, and more efficient financial management for individuals and businesses, including MSMEs. The increasing use of technology in financial services, including digital banking applications and e-wallets, is driving the transformation of a more modern and efficient financial system [Offiong, U.P., et. al. (2024); Srivastava, S., et. al. (2024); Aloulou, M., et. al. (2024)]. The emergence of financial technology (fintech) companies has made alternative financing solutions more accessible, especially to segments previously underserved by traditional financial institutions [Vijayagopal, P., et. al. (2024); Asif, M. et. al. (2024)]. The use of data analytics enables financial service providers to more accurately assess credit risk and accelerate the process of lending and investment management [Mer, A., et. al. (2024); Biloslavo, R., et. al. (2024); Kamimura, E.S., et. al. (2023)]. Governments in various countries have started to develop policies that support the digital financial ecosystem, including regulations related to data security and financial inclusion, to ensure wider and safer access for the public [Vijayagopal, P., et. al. (2024); Alhammedi, S. (2023)]. In the future, smart financing is predicted to grow further with the integration of technologies such as blockchain, which can improve the security and transparency of transactions [Negi, S. (2024); Rijanto, A. (2024)]. In addition, the use of more sophisticated AI in financial risk management will be further optimized. The role of the government and the private sector in promoting digital financial literacy is also a key factor in ensuring the inclusiveness of these services, especially for MSMEs that need more flexible and innovative access to finance.

The development of smart financing from year to year continues to transform, along with the advancement of digital technology and increasingly complex financial needs. The Early Era of Financial Digitalization (2000s–2010) was marked by the introduction of internet banking and mobile banking by banks to facilitate transactions without having to go to branch offices, and fintech startups began to emerge, especially in the fields of digital payments and peer-to-peer (P2P) lending. Next, the Fintech & AI Revolution (2010 - 2020) Emergence of Digital Wallets & Cashless Payments, Big Data & AI in Credit Scoring, Crowdfunding and P2P Lending Increased. Blockchain-based Smart Financing & DeFi (2020 - Present) Blockchain technology enables financial services without intermediaries, such as smart contracts for automated lending, financial planning is getting smarter with AI, such as robo-advisors apps that provide algorithm-based investment advice. Buy Now, Pay Later (BNPL) Rising like Klarna and Akulaku are trending, offering installments without credit cards. Open Banking & API Integration: Banks are starting to open APIs for integration with fintechs, enabling more flexible financial service innovation. Furthermore, in the future of smart financing (2025 onwards), financial management is increasingly automated and AI-based to provide more accurate investment advice. Quantum computing technology is predicted to improve the accuracy of credit risk analysis and the integrated financial ecosystem, where all aspects of finance (investments, loans, and savings) will be more connected in one AI and blockchain-



based platform. Smart financing is rapidly evolving along with technology, improving the efficiency and accessibility of financial services.

Smart financing has revolutionized the world of finance by improving efficiency (speed and automation of services) and accessibility (making it easier for more people to get financial services). Efficiency in smart financing means that financial services can be done faster, cheaper, and with less human error. Smart financing enables more people, including those who previously had no access to formal financial services, to get financial services easily. Smart financing makes financial services faster, cheaper, and more accessible to more people. With automation, AI, blockchain, and digital banking, smart financing accelerates the transformation of the financial industry towards a more inclusive and efficient era. The evolution of smart financing represents a major change in the way financial services operate, from early digitization to the era of artificial intelligence and blockchain. Despite the many benefits, challenges such as regulation, cybersecurity, and the volatility risks of digital assets remain to be addressed.

## **METHODOLOGY**

This research evaluates the implementation of smart financing for Barru Regency MSMEs in Indonesia, highlighting the challenges and opportunities faced. MSMEs play an important role in the economy but still face obstacles in accessing innovative financing. This study focuses on MSMEs that have or could potentially use smart financing in their business. An online survey method with snowball sampling was used, starting with MSMEs that have experience in smart financing and then expanding through their networks. Respondents were owners or managers of MSMEs in Makassar who have tried or considered smart financing. In total, we received 310 valid responses, with the majority of businesses operating for less than five years (85%) in the trade, service, and manufacturing sectors. Respondents consisted of 52% male and 48% female. This research used mixed methods that combine quantitative and qualitative approaches. A 5- and 7-point Likert scale was used to measure MSMEs' perceptions of the benefits and challenges of smart financing. Recommendations from Podsakoff et al. were applied to reduce methodological bias and improve data transparency. Validity and reliability tests ensured high data quality. A qualitative approach was taken through semi-structured interviews with MSME owners, financial service providers, and regulators to understand the experiences and barriers in implementing smart financing.

## **DISCUSSION**

### **Respondent Identity**

Respondent identity is very important in this research because it helps analyze patterns and trends related to the adoption of smart financing in the MSMEs sector. Respondent identity variables help provide context to the research data and enable deeper analysis of the factors that influence the adoption of smart financing. Respondent identities, such as length of business, type of business, and experience using digital financing, can be seen in the following table 1:

**Table 1: Respondent Identity**

Description	Quantity	Percentage
<b>Business Type</b>		
Trade Sector	61	19.68
Service Sector	39	12.58
Culinary Sector	67	21.61
Production Sector	87	28.06
Agriculture, plantation and fisheries sector	44	14.19
Construction and property sector	12	3.9
Total	310	100,00
<b>Length of Business Operation</b>		
Single	93	30,00
Married	179	58,00
Widow/Widower	10	3,00
Total	310	100,00
<b>Business scale (micro, small, medium)</b>		
Micro	132	42.58
Small	151	48.71
Medium	27	8.71
Total	310	100,00
<b>Experience using digital financial services</b>		
Every Day	24	7.42
Several times a week	51	16.45
Several times a month	109	35.16
Rarely or only once	15	4.84
Never	113	36.45
Total	310	100,00

Source: Data processed (2024)

Table 1. illustrates the importance of respondent identity in the research of smart financing adoption in the MSMEs sector. The identity of the respondents is used to analyze patterns and trends, as well as understand the factors that influence the adoption of this technology. Some key points from the respondent data: 1. Business Type: Respondents come from various sectors, with the production sector (28.06%) as the largest, followed by the culinary sector (21.61%). 2. Length of Business Operation: There is no specific information on years of operation, but there is data on respondents' marital status. 3. Business Scale: The majority of MSMEs surveyed are small (48.71%) and micro (42.58%). 4. Experience using digital financial services: 36.45% of respondents have never used digital financial services, while 35.16% use them several times a month. This data shows that there are still challenges in the adoption of smart financing, especially in the use of digital financial services.

### **Innovation Diffusion Factors**

In the theory of innovation diffusion (Rogers), there are five main factors that influence the adoption of an innovation, including smart financing by MSMEs. These factors are used as research variables to analyze the behavior of MSMEs in adopting smart financing technology in Barru Regency, illustrated in table 2 below:

**Table 2: Respondents' responses about the innovation diffusion**

Indicators	Answer Scores										Mean
	1		2		3		4		5		
	F	%	F	%	F	%	F	%	F	%	
<b>Relative Advantage</b>											
I feel that the use of smart financing makes it easier for me than traditional financing methods.	1	0,3	24	7,7	72	23,2	124	40,0	89	28,7	3,89
I feel the efficiency and ease of transactions or access to capital	5	1,6	16	5,2	75	24,2	108	34,8	106	34,2	3,95
<b>Compatibility</b>											
Smart financing is in line with my MSMEs business model	1	0,3	18	5,8	47	15,2	120	38,7	124	40,0	4,12
Smart financing fits my business needs	2	0,6	37	11,9	64	20,6	126	40,6	81	26,1	3,80
<b>Complexity</b>											
I find it difficult to use smart financing services	0	0,0	20	6,5	79	25,5	96	31,0	115	37,1	3,99
I feel the need for training or education before using smart financing	0	0,0	22	7,1	94	30,3	117	37,7	77	24,8	3,80
<b>Trialability</b>											
I have the opportunity to try smart financing services without major risks	1	0,3	20	6,5	104	33,5	106	34,2	79	25,5	3,78
I need a trial or simulation feature before committing	8	2,6	15	4,8	48	15,5	81	26,1	158	51,0	4,18
<b>Observability</b>											
I see successful examples from other users who have used smart financing	4	1,3	18	5,8	78	25,2	104	33,5	106	34,2	3,94
I have tangible evidence that this technology benefits other businesses	8	2,6	15	4,8	48	15,5	81	26,1	158	51,0	4,18
											3,89

Source: Data processed 2024

Table 2. shows the acceptance of smart financing by MSMEs based on the five dimensions of Innovation Diffusion Theory (Rogers): Relative Advantage: Respondents feel smart financing makes it easier than traditional financing methods (mean = 3.89) and Smart financing is considered efficient and facilitates transactions or access to capital (mean = 3.95) here respondents recognize the benefits of smart financing in increasing business efficiency compared to conventional methods. 2. Compatibility, where smart financing is considered compatible with MSME business patterns (mean = 4.12). However, there is a slight decrease in the suitability of smart financing with specific business needs (Mean = 3.80). Here, most MSMEs feel that smart financing is suitable for their business model, but there are still some



who feel that it is not suitable for their specific business needs. 3. Complexity, where respondents feel that there are challenges in using the service (mean = 3.99). Many feel that they need education or training before using smart financing (mean = 3.80). Although smart financing is considered useful, the complexity of its use is still an obstacle for some MSMEs, so education and training are needed. 4. Trialability, where respondents feel they have the opportunity to try smart financing without major risks (mean = 3.78).

There is a strong demand for trial or simulation features before committing (mean = 4.18). MSMEs want to ensure safety before using smart financing, so the simulation feature is needed. 5. Observability, where respondents see successful examples from other users (mean = 3.94). Tangible evidence of the benefits of smart financing for other businesses is very high (mean = 4.18). The success of other users increases trust in smart financing, encouraging other MSMEs to adopt it. In general, smart financing has a high potential to be accepted by MSMEs, mainly due to its relative advantages in efficiency and ease of transactions. However, there are barriers in terms of complexity of use, indicating the need for education and trial features. Support from successful examples and tangible evidence of benefits can accelerate the adoption of smart financing among MSMEs.

The acceptance of smart financing by MSMEs can be analyzed through five main dimensions in the diffusion of innovation theory (Rogers), namely relative advantage, compatibility, complexity, trialability, and observability. Each of these dimensions provides insight into how MSMEs respond to the adoption of smart financing and the factors that influence it. For example, the relative advantage of smart financing is shown through respondents' perceptions of convenience and efficiency compared to traditional financing methods. With a mean of 3.89, respondents feel that smart financing makes their financial process easier. In addition, smart financing is also considered efficient and facilitates transactions and access to capital, as shown by the mean of 3.95.

This confirms that MSMEs recognize the benefits provided by smart financing in improving their business efficiency compared to conventional methods. The compatibility of smart financing with MSMEs' business patterns has a mean of 4.12, indicating that the majority of MSMEs feel that this service is compatible with the way they do business. However, in terms of compatibility with specific business needs, there is a slight decline with a mean of 3.80. This indicates that although smart financing is aligned with the general business model of MSMEs, there are still some specific needs of the business that smart financing has not been able to fully fulfill.

The complexity of using smart financing is one of the main obstacles to its adoption. Respondents gave a mean score of 3.99 regarding the challenges in using this service. Many of them feel that they need to receive education or training before they can use smart financing optimally, as reflected in the mean of 3.80. This shows that although smart financing offers significant benefits, the complexity of its use is still a barrier for some MSMEs. Therefore, education and training efforts are needed to improve MSMEs' understanding and skills in using it. Respondents feel that they have the opportunity to try smart financing without major risks, as indicated by the mean of 3.78.

However, there is a strong demand for a trial or simulation feature before committing to using smart financing fully, with a mean of 4.18. This indicates that MSMEs want to ensure the safety and effectiveness of smart financing before actually using it in their business operations. Therefore, simulation or trial features are highly needed to increase MSMEs' trust and comfort in adopting this technology. The observability of smart financing is quite high among MSMEs, where respondents see successful examples from other users with a mean of 3.94. In addition, tangible evidence of the benefits of smart financing for other businesses is very high, with a mean of 4.18. The visible success of other users provides encouragement for other MSMEs to adopt smart financing.

This factor is very important in accelerating the diffusion of innovation, as the more successful examples that can be observed, the higher the likelihood that other MSMEs will be interested in trying and using this service. Based on the analysis of the five dimensions of the innovation diffusion theory, smart financing has a high potential to be accepted by MSMEs. The relative advantages in terms of efficiency and ease of transaction are the main factors that drive adoption.

However, the biggest challenge in its implementation is the complexity of use, which indicates the need for education and training for MSMEs to be better prepared to use it. In addition, trial or simulation features can increase the confidence of new users. Furthermore, observability also plays an important role in driving adoption, where the success of other users can be a motivation for other MSMEs to start using smart financing. Thus, to accelerate the adoption of smart financing among MSMEs, there is a need for a strategic approach that includes education, training, and the provision of simulation features to increase trust and ease of use of this service.

### **Barrier and Enabler Factors for Smart Financing Technology Adoption**

In this research, there are two important aspects that need to be analyzed, namely enablers and barriers. These factors are then linked to the diffusion of innovation theory (Rogers) to understand how MSMEs make decisions related to financial technology. Factors that can accelerate the adoption of smart financing technology by MSMEs: a. Relative Advantage, e.g., easier access to capital without complicated administrative processes, faster and more flexible transactions compared to traditional financial methods, easier financial recording and automated financial reports, and reduced dependency on conventional banking. b. Ecosystem and Regulatory Support, e.g.

MSME digitalization program encouraged by the government, Incentives or subsidies from financial institutions and fintech, Counseling or training on digital finance for MSME players and Consumer protection that increases the sense of security in using smart financing. c. Social Influence and Observability, e.g. Recommendations from business partners or MSME communities that have used smart financing, The number of testimonials or successful case studies from other MSMEs and Increased customer trust due to using digital payment methods. d. Ease of Access and Trialability, e.g., free trial or credit simulation feature before MSMEs decide to use smart financing, easy-to-use application even for MSMEs with low digital literacy and more flexible registration requirements compared to conventional banks.

**Table 3: Respondents' Responses on Supporting the Adoption of Smart Financing Technology**

Indicators	Answer Scores										Mean
	1		2		3		4		5		
	F	%	F	%	F	%	F	%	F	%	
Smart financing helps me get business capital more easily than conventional methods	8	2,6	19	6,1	44	14,2	137	44,2	102	32,9	3,99
I feel more confident using smart financing because of the government regulation	1	0,3	22	7,1	76	24,5	134	43,2	77	24,8	3,85
I am interested in using smart financing because many other MSMEs have benefited from it	4	1,3	20	6,5	53	17,1	100	32,3	133	42,9	4,09
I can try smart financing without having to make a full commitment	5	1,6	22	7,1	34	11,0	102	32,9	147	47,4	4,17
											4,03

Source: Data processed (2024)

Table 3. Illustrates the factors that encourage the adoption of smart financing in the business world, especially for MSMEs. The survey results show that the majority of respondents have a positive perception of this technology, especially in the aspects of easy access to capital, trust in government regulations, successful experiences of other users, and flexibility in trying the service without full commitment. 1. Ease of Getting Business Capital As many as 77.1% of respondents felt that smart financing makes it easier to access capital compared to conventional methods. Mean = 3.99 shows that the majority of MSMEs see this technology as a better solution than the traditional financing system.

The ease of access to capital is a crucial factor for small businesses, so smart financing plays an important role in improving their business sustainability. 2. The Effect of Government Regulation on Trust: 68% of respondents feel more confident in using smart financing due to government regulation. However, there are 7.4% who still doubt the role of regulation in increasing trust. With a mean = 3.85, although regulations play a big role, there is still a need for more education to make businesses more confident about the safety of this service. 3. The influence of other MSMEs' experience on interest 75.2% of respondents were interested in using smart financing after seeing the benefits experienced by other MSMEs. With a mean of 4.09, this data shows that the successful experience of other users is an important reference in encouraging the adoption of this technology.

Real evidence of the effectiveness of smart financing increases the interest of other business actors. 4. Ability to try without full commitment: 80.3% of respondents agreed that they can try smart financing without having to make a full commitment. With a mean of 4.17, this flexibility feature is highly valued by MSMEs, as it provides a sense of security before making bigger financial decisions. Overall, smart financing has great potential to be accepted by MSMEs.

However, further education on regulations, benefits, and user protection is needed to increase the level of trust. There are several barriers to the adoption of smart financing or factors that make MSMEs hesitant or reluctant to use smart financing, namely: a. Technological complexity, e.g., lack of understanding of how smart financing works, difficulty in operating fintech applications or digital platforms, and fear of changes in the financial system that has been accustomed to being used. b. Trust and data security, e.g., fear of the risk of fraud or misuse of personal data, transaction security that is not fully understood by MSME players, and previous negative experiences in using digital financial services.

Trust and data security, e.g., fear of risk of fraud or misuse of personal data, transaction security that is not fully understood by MSME players, and previous negative experience in using digital financial services. c. High costs and interest rates, e.g., service fees or loan interest rates that are higher than conventional banks; hidden costs that are not informed from the start; and interest charges or late fees that are considered burdensome for MSMEs. d. Limited infrastructure and Internet access, e.g., service fees or loan interest rates that are higher than conventional banks.

Infrastructure and Internet Access Limitations, e.g., unstable internet connection in certain areas hinders the use of smart financing, MSMEs that do not have adequate technological devices (e.g., smartphones or laptops), and difficulty in accessing customer service or technical assistance when problems occur. Furthermore, by understanding these factors, strategies to increase the use of smart financing in MSMEs can be more targeted.

**Table 4: Respondents' Responses to Factors Hindering the Adoption of Smart Financing Technology**

Indicators	Answer Scores										Mean
	1		2		3		4		5		
	F	%	F	%	F	%	F	%	F	%	
I find it difficult to understand how smart financing works	1	0,3	24	7,7	72	23,2	124	40,0	89	28,7	3,89
I am concerned about the security of my personal data when using smart financing	5	1,6	16	5,2	75	24,2	108	34,8	106	34,2	3,95
I feel that the fees and interest of smart financing are too high for my business	1	0,3	18	5,8	47	15,2	120	38,7	124	40,0	4,12
I find it difficult to use smart financing due to limited internet access	2	0,6	37	11,9	64	20,6	126	40,6	81	26,1	3,80
											3,89

Source: Data processed (2024)

Table 4. shows the various barriers faced by MSMEs in adopting smart financing. The survey results reveal that there are still challenges in terms of technological understanding, data security, service costs, and internet access. These factors are the main obstacles that need to be considered to increase the adoption of smart financing among small and medium enterprises.

As many as 68.7% of the respondents find it difficult to understand the smart financing mechanism, while only 8% of respondents do not experience this difficulty. With a mean of 3.89, this data shows that the lack of digital financial literacy is still a challenge in the implementation of smart financing. Many MSME players are not yet familiar with the digital-based financial technology system, especially in understanding the application procedures, requirements, and benefits of this service compared to conventional financing methods.

Therefore, more education and socialization are needed to help MSMEs better understand how smart financing works and feel confident in using it. As many as 69% of respondents expressed concerns about the personal data security when using smart financing. Meanwhile, only 6.8% of respondents did not have this concern. With a mean of 3.95, data protection is a serious issue. The security of personal information, such as financial data and business owner identity, is an important factor in building trust in digital financial services.

This concern may prevent MSMEs from making the most of smart financing. Service providers need to guarantee data security, transparency in information management, and implement strict security standards to increase users' sense of security. Service fees and interest rates are the biggest inhibiting factors, with 78.7% of respondents feeling that smart financing fees are too high for their businesses. Meanwhile, only 6.1% of respondents did not feel burdened by these fees. With a mean of 4.12, this score is the highest in the table, indicating that service fees are a major obstacle for MSMEs in adopting smart financing. The high fees and interest charged may reduce the attractiveness of this service for small businesses with limited capital. To increase MSME participation, alternative financing with more competitive schemes is needed, such as low interest rates or subsidy programs from the government and financial institutions that support MSME digitalization.

As many as 66.7% of respondents experienced difficulties using smart financing due to limited internet access, while only 12.5% of respondents did not experience this problem. Furthermore, with a mean of 3.80, this issue is still a challenge for some MSMEs, especially those located in areas with underdeveloped digital infrastructure. Limited internet access hinders the smooth use of digital-based services, so businesses in remote areas tend to still rely on conventional financing systems. Solutions include strengthening digital infrastructure, providing wider internet access, and digital literacy training programs to help MSMEs better adopt smart financing.

Furthermore, the survey results show that while smart financing has great potential to help MSMEs, there are several key challenges that need to be addressed: 1. Lack of understanding about smart financing, so education and socialization are needed. 2. Concerns over personal data security, which requires guaranteed protection from service providers. 3. High service fees and interest rates, which need to be addressed through more affordable financing schemes. 4. Limited internet access, which requires digital infrastructure support in various regions. By addressing these inhibiting factors, the adoption of smart financing among MSMEs can increase, allowing more businesses to use this technology to grow their businesses.



### **Challenges and Expectations of MSMEs in Barru Regency towards Smart Financing Adoption.**

The adoption of smart financing technology by Micro, Small, and Medium Enterprises (MSMEs) in Barru Regency faces various challenges and has certain expectations. The challenges that we can explore include: 1. Adapting to the Development of the Times: MSMEs in Barru need to adapt their market patterns to the latest technological developments and trends. Lack of adaptation can hamper their competitiveness in the digital era. 2. Access to Technology and Digital Infrastructure: Limited access to technology and digital infrastructure, such as stable internet connection, can be a barrier for MSMEs in adopting smart financing. 3. Digital and Financial Literacy: Lack of understanding about digital technology and modern financial management can make MSMEs reluctant or hesitant to switch to smart financing. 4. Trust in Data Security: Concerns regarding data security and potential fraud in digital transactions may hinder the adoption of this technology. Furthermore, the expectations are: 1. Training and Education: The local government hopes that through training, MSMEs players can rise and adapt to the times, especially in adopting digital technology. 2. Government Support: Support from the government in the form of supportive regulations, incentives, and mentoring programs is expected to facilitate MSMEs in adopting smart financing. 3. Improved Digital Infrastructure: Improved access to adequate digital infrastructure will help MSMEs integrate smart financing technology into their operations. 4. Collaboration with Financial Institutions: Collaboration between MSMEs and financial institutions, including fintech, is expected to provide financial solutions that are more flexible and suited to the needs of MSMEs. By addressing these challenges and realizing these expectations, MSMEs in Barru Regency are expected to be more competitive and thrive in the digital era.

The adoption of smart financing technology by Micro, Small, and Medium Enterprises (MSMEs) in Barru Regency faces various challenges that need to be overcome in order to thrive in the digital era. One of the main challenges is adjusting to the times, where MSMEs must adapt to technological trends in order to remain competitive. Lack of adaptation can hamper their competitiveness in an increasingly digitalized market. In addition, access to technology and digital infrastructure is a barrier for many businesses, especially due to the lack of a stable internet connection. This problem is further exacerbated by the lack of digital and financial literacy, which causes many MSMEs to hesitate in adopting smart financing. Concerns about personal data security and the risk of fraud are also factors that hinder businesses' trust in digital-based financial services. To overcome these barriers, several expectations are suggested. Training and education are the most important steps expected to help MSMEs better understand and adapt to digital technology. In addition, government support, whether in the form of regulations, incentives, or mentoring programs, can provide a stronger impetus for MSMEs to adopt smart financing. Another expectation is the improvement of digital infrastructure, including wider and more stable internet access, so that MSMEs can more easily use smart financing services. Finally, collaboration with financial institutions, such as banks and fintechs, is expected to provide financial solutions that are more flexible and suited to the needs of MSMEs. By overcoming these challenges and realizing the existing expectations, MSMEs in Barru Regency can further develop and compete in the digital era.



## CONCLUSION

The results show that most MSMEs recognize the benefits of smart financing in improving efficiency and access to capital, as well as its suitability to their business patterns. However, challenges such as technological complexity and lack of digital literacy remain key barriers, with many respondents feeling the need for training before adoption. The success of other MSMEs in using smart financing also contributes to increased trust in this technology. Furthermore, government regulations and social influence from other MSMEs play an important role in the adoption of this technology. However, there are still challenges in the form of limited internet access, concerns over data security, and the perceived high cost of the service. To increase the adoption of smart financing, a strategy involving the government, fintech providers, and MSMEs is needed. Improved digital literacy, financial education, and more inclusive policies can help overcome these barriers. With closer collaboration between various stakeholders, MSMEs can be more confident in using smart financing to improve their competitiveness and business growth in the digital era.

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