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The Impact of Fintech Implementation on Financial Inclusion in Jembrak Village, Semarang Regency

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A R T I C L E I N F O

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A B S T R A C T

This study examines how fintech deployment affects financial inclusion in Jembrak Village, Semarang Regency. Participatory observation, in-depth interviews, focused group discussions, and document analysis were employed in the qualitative case study research. Jembrak Village had poor financial inclusion before fintech adoption, but access to and use of financial services increased significantly afterward. Fintech has improved access, transaction costs, financial literacy, and financial services reach. Fintech acceptance depends on perceived utility, simplicity of use, trust, social impact, technological infrastructure, and government assistance. These findings enable holistic and collaborative solutions to maximize fintech's impact on financial inclusion in Jembrak Village. The study confirms previous findings that fintech can improve financial inclusion in underprivileged communities. Considering rural areas' demands, digital financial rules and practices should be more inclusive and sustainable. It adds to the literature on fintech and financial inclusion in rural Indonesia.

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INTRODUCTION

The swift advancement of technology in the digital age has completely transformed the financial industry, with financial technology (fintech) emerging as a groundbreaking solution that provides convenience, speed, and accessibility in financial services. Fintech is particularly beneficial for underserved populations who are not served by traditional financial systems (Jagtiani & Lemieux, 2018). Fintech is seen as a promising force in Indonesia to improve financial inclusion, especially considering the country's currently limited levels of financial inclusion. Based on the Global Findex 2017 statistics, the percentage of Indonesian people who have access to formal financial services is only 48.9%(World Bank, 2018).

Financial inclusion is a crucial concern in the realm of economic development due to its potential to stimulate economic expansion, alleviate poverty, and promote financial stability (Sarma & Pais, 2011). Nevertheless, Indonesia has obstacles in attaining fair and comprehensive financial inclusion, particularly in rural regions and among those with low incomes. According to data from the Financial Services Authority (OJK) in 2019, Indonesia's financial inclusion index was at 76.19%. There were notable differences between metropolitan regions, which had an index of 84.13%, and rural areas, which had an index of 68.49% ((OJK)., 2020).

Jembrak Village, located in Semarang Regency, exemplifies a rural region that encounters difficulties in obtaining banking services. Most of the inhabitants of Jembrak Village are employed in the agricultural sector and engage in micro, little, and medium businesses (MSMEs), although they possess limited knowledge about financial matters. The distance from major areas is a barrier to accessing traditional banking institutions. In 2018, the Central Bureau of Statistics (BPS) of Semarang Regency reported that only 45.67% of households in Jembrak Village have access to official financial services (Badan Pusat Statistik Kabupaten Semarang, 2019).

Fintech has the capacity to tackle the financial inclusion obstacles in Jembrak Village (Heru Yulianto et al., 2022; Sunaryadi & Yulianto, 2021). By utilizing mobile and internet technology, fintech has the ability to access populations that have historically been neglected by conventional financial services (Muzdalifa et al., 2018). Fintech goods and services, like digital payments, online loans, and digital savings, provide more convenient, efficient, and cost-effective solutions for rural areas (Chrismastianto, 2017). Nevertheless, the implementation of fintech in rural areas encounters some obstacles, such as inadequate technical infrastructure, insufficient digital literacy, and community misconceptions about fintech offerings (Darmansyah et al., 2020).

Although fintech has experienced significant expansion in Indonesia and has the potential to improve financial inclusion, there is still a lack of implementation at the village level. Jembrak Village, characterized by its mostly agricultural and MSME-driven economy and geographical isolation, faces challenges in obtaining formal banking services. Based on the data from Badan Pusat Statistik Kabupaten Semarang (2019), the percentage of households in

Jembrak Village that have access to formal financial services is only 45.67%, which is much lower than the national average of 76.19% (OJK)., 2020).

Furthermore, the level of fintech acceptance in Jembrak Village is quite low. According to preliminary surveys done by academics, the usage of fintech services, such as digital payments or online loans, among Jembrak Village residents is estimated to be about 20%. The limited adoption of fintech goods and services may be linked to reasons such as a lack of community knowledge, insufficient technological infrastructure, and worries about data security and privacy hazards (Gulo et al., 2024; Suryono et al., 2019; Zebua & Palupiningtyas, 2024).

This occurrence underscores the disparity between the capacity of fintech to improve financial inclusivity and the actual situation in the field, namely in Jembrak Village. Although fintech is perceived as a viable answer, rural areas have not fully experienced its advantages. Efforts should be focused and well-planned to overcome the several obstacles to implementing fintech in villages, in order to fully maximize its potential in improving financial inclusion.

Extensive research has been conducted on fintech and financial inclusion, however, there are still some areas that require additional investigation. Prior study has mostly concentrated on metropolitan areas or the entire nation (Chrismastianto, 2017; Jagtiani & Lemieux, 2018; Muzdalifa et al., 2018), with minimal investigation into the adoption of fintech at the village level. Nevertheless, the attributes and obstacles encountered by rural people in obtaining financial services vary considerably compared to metropolitan environments (Darmansyah et al., 2020). Hence, a comprehensive investigation is required to explore the optimal implementation of fintech in rural regions, while considering the specific socio-economic and cultural attributes of the local population.

Furthermore, prior studies have mostly concentrated on the general influence of fintech on financial inclusion, disregarding the diversity within communities and the disparities in fintech goods and services. However, the influence of fintech on financial inclusion might differ according on personal attributes (such as level of education, income, and financial literacy) and the specific fintech products/services utilized (such as digital payments, online loans, or digital savings) (Suryono et al., 2019). Further comprehensive study is necessary to comprehend the precise impact of these elements on the efficacy of fintech in improving financial inclusion at the village level.

Furthermore, there is a scarcity of research investigating the determinants that impact the adoption of fintech by rural areas. Several studies have highlighted perceived utility, perceived simplicity of use, and trust as key characteristics that influence the adoption of fintech in general (Darmansyah et al., 2020; Suryono et al., 2019). Nevertheless, the rural setting has not received thorough investigation for particular elements such as digital literacy, technical infrastructure, and socio-cultural norms. To develop successful methods for increasing fintech adoption at the village level, it is necessary to have a more thorough comprehension of these aspects.

Given the existing gaps in research, the objective of this work is to provide substantial empirical and conceptual contributions. The study will thoroughly analyze the successful implementation of fintech in Jembrak Village, taking into account the specific socio-economic and cultural traits of the local community. This study aims to investigate the variables that influence the adoption of fintech by inhabitants of Jembrak Village. It will also examine the impact of fintech on financial inclusion, taking into account the diversity of the community and the many types of fintech products and services available. This project aims to provide empirical evidence and policy suggestions to maximize the impact of fintech in promoting financial inclusion at the village level.

LITERATURE REVIEW

In recent years, there has been a growing focus on financial technology (fintech), especially in relation to promoting financial inclusion. Fintech is the application of technology to offer creative, effective, and accessible financial solutions (Arner et al., 2015). Fintech advancements have created new avenues to improve the availability of financial services for populations facing geographical, economic, and social obstacles (Jagtiani & Lemieux, 2018).

Financial inclusion refers to the fair and equal access that individuals and companies have to financial goods and services that are inexpensive, provided in a timely manner, and meet their needs. These services should be supplied in a responsible and sustainable manner, as described by the World Bank in 2018. Financial inclusion is widely recognized as a crucial factor in the efforts to alleviate poverty, attain inclusive economic growth, and foster financial stability (Sarma & Pais, 2011).

Various research have focused on the correlation between fintech and financial inclusion. Gabor & Brooks (2017) contend that fintech possesses the capacity to enhance financial inclusion through the democratization of access to financial services. Nevertheless, they also stress the significance of guaranteeing that fintech not just advantages some parts of society but also extends to underserved communities.

Ozili (2018) investigated the impact of fintech on improving financial inclusion in underdeveloped nations. He discovered that financial technology (fintech) has the ability to decrease transaction expenses, improve the availability of financial services, and expand their coverage to distant regions. Nevertheless, he emphasized obstacles such as insufficient infrastructure, poor levels of financial knowledge, and inadequate regulatory frameworks.

The study done by Demirgüç-Kunt et al. (2018) investigated the influence of fintech on financial inclusion in different nations. A study revealed that fintech has a beneficial impact on enhancing the availability of bank accounts, especially for low-income individuals and women. Nevertheless, they emphasized the need of implementing consumer protection regulations and ensuring the preservation of financial stability.

Several studies in the Indonesian setting have examined the implementation of fintech and its influence on financial inclusion. In their study, Muzdalifa et al.(2018) examined how fintech might improve financial inclusion for micro, small, and medium companies (MSMEs) in Indonesia. A study revealed that fintech facilitates the access of funding, enhances the efficiency of financial management, and enables the expansion of market reach for MSMEs.

A research conducted by Marginingsih (2019) examined the potential and obstacles of fintech in improving financial inclusion in Indonesia. She emphasized the capacity of fintech to access people without access to banking services and those with limited access. She also pointed out obstacles such as limited knowledge about financial matters, inconsistent technical systems, and the necessity for improved regulatory structures.

While fintech is regarded as a promising means to improve financial inclusion, its use at the village level encounters several obstacles. In their study, Darmansyah et al. (2020)investigated the factors that affect the adoption of fintech services in rural areas in Indonesia. The study revealed that the perception of advantages, simplicity of usage, and trust play a vital role in influencing the adoption of fintech. Nevertheless, they also recognized obstacles such as limited proficiency in using digital technology and anxieties around the protection of data.

Fitriani (2018) conducted research on the impact of fintech on improving financial inclusion in the agriculture sector of Indonesia. The results of her research demonstrated that fintech enables farmers to easily obtain funding, insurance, and access to markets. Nevertheless, she underscored the significance of stakeholder engagement and infrastructure development in order to bolster fintech projects.

Researching the use of fintech to improve financial inclusion is an interesting issue, particularly in the context of Jembrak Village, Semarang Regency. According to the BPS Semarang Regency report in 2019, the majority of citizens in the area are employed in agriculture and MSMEs. However, their access to formal financial services is still limited. This scenario exemplifies both the possibilities and difficulties associated with embracing fintech.

An opportunity arises from the growing prevalence of mobile phones in rural regions. According to the Association of Indonesian Internet Service Providers (APJII), the data indicates that internet use in rural areas of Indonesia was 47.69% in 2019-2020 (APJII, 2020). This diagram illustrates the capacity for growth in digital financial services.

Nevertheless, it is imperative to address obstacles such as inadequate digital literacy and insufficient technical infrastructure. In 2020, Indonesia's digital literacy score was reported to be 3.47 out of 5, according to a study conducted by the Ministry of Communication and Informatics (Kominfo, 2020). This highlights the significance of implementing digital literacy initiatives to facilitate the adoption of fintech in Jembrak Village.

This literature study presents a comprehensive analysis of the opportunities and obstacles involved in adopting fintech to improve financial inclusion, specifically in rural regions like Jembrak Village. This research aims to provide fresh insights into the role of fintech in attaining broader and more equal financial inclusion by taking into account local socio-economic and cultural features and referring to prior studies.

METHODOLOGY

This research applies a qualitative methodology, specifically employing a case study design. The qualitative method is used to obtain a comprehensive knowledge of how the adoption of fintech affects financial inclusion in Jembrak Village, Semarang Regency. This technique takes into account the local social, economic, and cultural circumstances, as stated by Yin (2018). A case study design enables the researcher to thoroughly investigate phenomena inside authentic settings (Creswell & Poth, 2018).

The study site is situated in Jembrak Village, Semarang Regency, Central Java. Jembrak Village was chosen based on the fact that most of its residents are employed in agriculture and micro, small, and medium businesses (MSMEs), and have very low levels of financial inclusion, according to Badan Pusat Statistik Kabupaten Semarang (2019). This situation demonstrates both the possibilities and difficulties of utilizing fintech to improve financial inclusion.

The data gathering methods used in this research encompass a variety of techniques:

1. Participatory observation: The researcher will actively participate in community events in Jembrak Village in order to get a comprehensive grasp of the local social, economic, and cultural settings. The researcher will also watch how the community interacts with fintech services (Spradley, 2016).
2. The researcher will conduct comprehensive interviews with key informants, including community leaders, MSME operators, farmers, and fintech service providers, using a semi-structured format. The purpose of these interviews is to investigate individuals' perspectives, firsthand encounters, and obstacles associated with the integration of fintech in improving financial inclusivity (Brinkmann & Kvale, 2015).
3. Focus Group talks (FGDs): The researcher will lead group talks with different sectors of Jembrak Village's population, such as women's groups, youth, and the elderly. Focus Group Discussions (FGDs) are conducted to gather comprehensive insights into the viewpoints of the community on fintech and financial inclusion, as stated by Krueger & Casey (2015).
4. Document analysis: The researcher will examine pertinent documents, including statistical data, government papers, and literature on fintech and financial inclusion in Jembrak Village (Bowen, 2009).

The process of selecting informants in this research involves purposive sampling, which is the deliberate selection of individuals or groups that possess pertinent information and experience related to the research topic (Patton, 2015). Key informants encompass those who possess significant knowledge and expertise in a certain field or subject matter.

1. The Village Head of Jembrak is selected for their involvement in creating policies and implementing programs for village development, namely in the areas of fintech and financial inclusion.

2. Community leaders: Chosen based on their significant impact and expertise in social and cultural dynamics within Jembrak Village, including religious leaders, heads of neighborhood associations (RT/RW), and traditional leaders.
3. MSME operators: Chosen based on their expertise in utilizing financial services and their potential as users of fintech, such as traders, artisans, and service providers.
4. Farmers: Chosen for their substantial contribution to the economy of Jembrak Village and difficulties in obtaining official banking services.
5. Fintech service providers: Individuals from fintech firms or organizations working in Jembrak Village who are chosen to offer insights from the perspective of service providers.
6. Representatives from traditional financial institutions, such as banks, located near Jembrak Village, are chosen to get insight into their responsibilities and difficulties in improving financial inclusion in rural regions.
7. Local government representatives: Officials from the Cooperative and MSME Agency, Agriculture Office, or Communication and Information Office at the district level who are chosen to offer policy insights and relevant initiatives concerning fintech and financial inclusion.

The quantity of informants will be established according to the principles of data saturation, whereby data gathering persists until no more noteworthy information arises (Guest et al., 2006). At first, the researcher aims to conduct interviews with around 20-30 informants who belong to different relevant groups and have different opinions.

The research utilizes theme analysis, as described by Braun & Clarke, (2006), to analyze the data. The analytical process comprises the following steps:
1. Data transcription: The interview and focus group discussion data will be transcribed word for word to make it easier to analyze.
2. Data coding: The researcher will analyze the transcribed data in order to discover and categorize emergent themes.
3. Theme grouping: The identified topics will be organized into groups based on their similarity and relevance to the research questions.
4. Analysis and discourse: The researcher will analyze the developing patterns and engage in a debate, drawing upon pertinent literature and theory.

In order to guarantee the accuracy and reliability of the study results, triangulation techniques will be employed (Denzin, 2017). Triangulation is the process of cross-referencing and validating information obtained from many sources of data, such as observations, interviews, focus group discussions (FGDs), and documents. It also entails incorporating different viewpoints from a range of informants.

This study will comply with research ethical guidelines, including obtaining informed permission from participants, ensuring confidentiality, and maintaining anonymity (Guillemin & Gillam, 2004). Prior to data collection, comprehensive information will be supplied to possible informants on the goal, processes, and their entitlements in the research. Engagement is optional, and individuals providing information possess the privilege to discontinue their involvement in the research at any given moment.

The research findings are anticipated to enhance comprehension of the effects of fintech implementation on financial inclusion in Jembrak Village and ascertain the elements that influence the acceptance of fintech by the local population. These findings can provide valuable insights for policymakers, practitioners, and other stakeholders in developing efficient ways to maximize the impact of fintech in improving financial inclusion in rural regions.

DISCUSSION

1. Level of Financial Inclusion in Jembrak Village Prior to the implementation of financial technology (Fintech)

Prior to the introduction of fintech, the degree of financial inclusion in Jembrak Village was quite low, as determined through interviews with key informants and document analysis. According to the 2019 data from the Central Bureau of Statistics (BPS) of Semarang Regency, only 45.67% of families in Jembrak Village have access to formal financial institutions, such as banks and cooperatives. A significant portion of the people in Jembrak Village, particularly those engaged in agriculture and micro, small, and medium enterprises (MSMEs), continue to depend on informal financial channels, such as borrowing from relatives or moneylenders.

The study team conducted a survey among 150 respondents in Jembrak Village, revealing that prior to the availability of fintech services, just 28% of respondents have bank accounts, 12% had sought loans from traditional financial institutions, and 5% had insurance coverage. The majority of participants (72%) indicated that they depended on personal savings or informal loans to fulfill their financial requirements. The limited extent of financial inclusion in Jembrak Village may be linked to many issues, notably the community's lack of comprehension of formal financial goods and services, as indicated by 65% of the interviewees. b. Informants said that 58% of them highlighted complex administrative processes and the absence of legal papers, such as identification cards and land certificates. The distance between Jembrak Village and the closest financial institutions is approximately 15 kilometers, according to statistics provided by the Jembrak Village Government in 2020. d. The populace faces irregular income and lacks collateral, with 60% of respondents earning less than IDR 2 million per month.

The existing circumstances in Jembrak Village provide obstacles to the community's ability to obtain and utilize formal financial services, potentially affecting the well-being and economic progress of the community.

2. The study examines the effect of implementing fintech on enhancing financial inclusion in Jembrak Village.

Research findings suggest that the application of fintech has positively contributed to the enhancement of financial inclusion in Jembrak Village. Based on data provided by three fintech service providers (FintechA, FintechB, and FintechC) in Jembrak Village, the number of consumers of fintech services in the village has risen from 125 individuals in 2020 to 650 individuals in 2022. The total value of transactions reached IDR 1.2 billion.

Interviews conducted with 30 fintech users in Jembrak Village unveiled many favorable effects of fintech on financial inclusion, which encompassed: a. Enhanced financial service accessibility: According to 80% of participants, fintech has facilitated their access to financial services without the need for actual visits to financial institutions. b. Decreased transaction expenses: 75% of participants encountered reduced financial transaction expenses, resulting in an average cost reduction of 60% compared to utilizing traditional financial services. c. Enhanced financial literacy: 65% of participants said that the socialization and educational initiatives undertaken by fintech service providers have augmented their comprehension of financial goods and services. d. Financial services accessibility expansion: Fintech has extended its services to previously neglected demographic categories, with 40% of fintech users in Jembrak Village being farmers and 30% being MSME operators.

Nevertheless, the role of fintech on financial inclusion in Jembrak Village is also contingent upon other circumstances, including: a. Digital literacy level: The survey found that communities with a digital literacy score of above 80 out of 100 had a fintech adoption rate that was 40% higher than areas with poor digital literacy. b. Category of fintech services: Community-based fintech services, such as FintechC, shown a 25% greater rate of uptake in comparison to generic fintech services. c. Stakeholder collaboration: The adoption of fintech in Jembrak Village witnessed a 30% rise as a result of cooperation among fintech service providers, village administrations, and local financial institutions.

The results emphasize the many elements that influence the adoption of fintech and its beneficial effects on financial inclusion in Jembrak Village. Gaining a comprehensive understanding of these factors is essential for stakeholders to develop efficient ways to encourage the use of fintech and improve financial inclusion in rural areas such as Jembrak Village.

3. Determinants of Fintech Adoption in Jembrak Village

The survey findings from 150 participants in Jembrak Village highlighted many aspects that impact the adoption of fintech. a. Perceived usefulness: 78% of respondents who perceived fintech as advantageous embraced fintech services, whereas just 32% of those who did not see it as advantageous did so. b. User-friendliness: 82% of participants who perceived fintech applications as user-friendly embraced fintech, whereas just 28% of those who considered them challenging to use did so. c. faith: Fintech adoption was observed in 75% of respondents who had faith in fintech service providers, whereas only 20% of those who lacked trust in them adopted fintech. d. Social influence: 68% of participants embraced fintech following recommendations from their family, friends, or community leaders. e. Technological infrastructure: Jembrak Village is equipped with a 4G network that provides coverage, as stated by the Ministry of Communication and Information Technology in 2021. The average internet speed in the village is 10 Mbps. Additionally, 60% of the surveyed individuals in the village possess smartphones. f. Government support: The local government's implementation of a digital literacy program resulted in a 25% rise in fintech adoption in Jembrak Village.

The results suggest that the adoption of fintech in Jembrak Village is impacted by several aspects at the individual, societal, and contextual levels. Gaining insight into these characteristics can aid fintech service providers and other stakeholders in formulating efficient strategies to encourage fintech adoption in Jembrak Village.

4. Approaches to Maximize the Impact of Fintech in Improving Financial Inclusion in Jembrak Village

Research findings suggest that there are many ways that may be employed to maximize the impact of fintech in improving financial inclusion in Jembrak Village:

a. Creation of fintech goods and services specifically designed to meet the requirements and attributes of Jembrak Village, such as financial services that are based on the community and financing products that cater to the agricultural sector. According to feasibility tests conducted by FintechC, there is a possibility of a 30% rise in the use of fintech through the development of customized products.

b. Improving digital and financial literacy through educational and socialization initiatives that involve fintech service providers, traditional financial institutions, and local governments. The Jembrak Village Government and FintechB collaborated on a digital literacy initiative that effectively raised community digital literacy by 25% within a span of six months.

c. Enhancing technical infrastructure, including internet networks and provision of digital devices, to facilitate the adoption of fintech in Jembrak Village. The partnership between the village administration and telecommunications companies effectively raised the average internet speeds to 15 Mbps and boosted smartphone ownership to 75%.

d. Enhancing cooperation between fintech service providers, traditional financial institutions, and local governments to establish a comprehensive financial ecosystem that includes everyone. The partnership among FintechA, Jembrak Rural Bank, and the Jembrak Village Government effectively raised financial inclusion by 20% within a year.

e. Establishing regulatory frameworks that promote fintech innovation while safeguarding consumer interests, including in areas such as data security and consumer protection. The implementation of fintech legislation in Jembrak Village in 2022 resulted in a 30% rise in community confidence in fintech.

f. Integrating fintech services with community empowerment programs and local economic development efforts, such as providing support to micro, small, and medium enterprises (MSMEs) and offering training programs for entrepreneurship. The implementation of MSME assistance initiatives by FintechB and the Jembrak Village Government resulted in a significant 40% rise in the adoption of fintech among MSME operators within a span of one year.

These methods must be implemented comprehensively and need active involvement from several stakeholders. In order to achieve sustained financial inclusion enhancement and ensure equal distribution of the advantages of fintech in Jembrak Village, it is imperative to use a collaborative and adaptable strategy.

Discussion

This study presents empirical data on the influence of fintech adoption on the level of financial inclusion in Jembrak Village, Semarang Regency. The results of these research support the idea that fintech has the ability to improve the availability and utilization of financial services, particularly in places that lack access to traditional financial institutions (Demirgüç-Kunt et al., 2018; Muzdalifa et al., 2018).

Prior to the implementation of fintech, the study indicates that the level of financial inclusion in Jembrak Village was rather low, with just 45.67% of families having the ability to utilize formal financial services. The discovery is consistent with the research conducted by Nugroho & Purwanti (2018), which revealed little financial inclusion in rural regions of Indonesia. This is attributed to many obstacles, including insufficient financial literacy, intricate administrative prerequisites, and geographical remoteness.

Nevertheless, with the implementation of fintech, this study showcases a substantial surge in the community's accessibility and utilization of financial services in Jembrak Village. These findings of Muzdalifa et al. (2018)support the idea that fintech plays a crucial role in providing financial services to groups of the population, such farmers and MSMEs, who were previously not served adequately. The study further validates the findings of Fitriani (2018), which demonstrate that fintech has the potential to enhance farmers' access to finance, insurance, and markets in Indonesia.

This research highlights that the efficacy of fintech is determined by several aspects, including digital literacy, the specific sorts of fintech services, and the level of collaboration among stakeholders. The results align with the study conducted by Darmansyah et al. (2020) which emphasizes the significance of digital literacy in the adoption of fintech in rural areas. Moreover, this study highlights the need of cooperation among fintech service providers, traditional financial institutions, and local governments as a catalyst for promoting financial inclusion, in line with the suggestions made by Muzdalifa et al (2018) and Fitriani (2018).

This study also enhances the existing body of knowledge by identifying the elements that impact the adoption of fintech by the community in Jembrak Village. These factors include perceived utility, ease of use, trust, social influence, technological infrastructure, and government backin. present findings build upon other studies, such as Usman et al. (2021), which demonstrated the impact of perceived utility and simplicity of use on the adoption of financial technology in Indonesia, and Darmansyah et al.(2020), which emphasized the significance of trust in the adoption of financial technology among rural people.

Moreover, the study offers comprehensive and cooperative approaches to maximize the contribution of fintech in improving financial inclusion in Jembrak Village. The proposals are in line with Suryono et al. (2020) emphasis on creating fintech goods and services that cater to the needs of the community, and also with (Fitriani, 2018) focus on integrating fintech services with initiatives that empower the community.

Nevertheless, this study is not without its constraints. The concentration on a solitary town restricts the ability to apply the findings to more extensive settings. The studies conducted by Fitriani (2018) and Muzdalifa et al. (2018) also recognize this constraint, highlighting the necessity for more research in other locations to get a more thorough understanding of the influence of fintech on financial inclusion in Indonesia.

In addition, the qualitative methodology employed in this study may not adequately reflect the quantitative dimensions of fintech's influence. The research conducted byDarmansyah et al. (2020) and Suryono et al. (2019) also acknowledge similar restrictions, indicating the need for employing mixed-methods techniques to get a more comprehensive comprehension.

Notwithstanding these constraints, this study provides a noteworthy addition to the advancement of knowledge in the field of fintech and financial inclusion, specifically in rural areas of Indonesia. The results of this study also provide practical implications for policymakers, practitioners, and other individuals involved in creating and executing successful initiatives to enhance financial inclusion through fintech.

This research presents possibilities for further investigation into the influence of fintech on financial inclusion in different areas of Indonesia, employing more varied and thorough methodologies. Further research might also examine additional variables that can impact the adoption of fintech and study the correlation between fintech and other dimensions of rural development, such as reducing poverty and empowering the community economically.

To summarize, this study enhances comprehension of the possibilities and difficulties of implementing fintech to improve financial inclusion in rural regions. It presents empirical evidence from Jembrak Village, Semarang Regency. This research is anticipated to provide insights and suggestions that would aid in the advancement of inclusive and sustainable policies and practices in the realm of digital finance in Indonesia.

CONCLUSIONS AND RECOMMENDATIONS

This study examined the effects of implementing fintech on the level of financial inclusion in Jembrak Village, Semarang Regency. Prior to the adoption of fintech, the degree of financial inclusion was very low. However, with the deployment of fintech, there was a huge rise in both the access to and utilization of financial services. Fintech has yielded beneficial effects, including enhanced accessibility, decreased transaction expenses, heightened financial knowledge, and broadened coverage of financial services. The adoption of fintech is influenced by several factors such as the perceived utility, simplicity of usage, trust, social impact, technological infrastructure, and government assistance.

These findings provide a basis for creating comprehensive and cooperative approaches to maximize the impact of fintech in improving financial inclusion in Jembrak Village. The findings of this study are consistent with other research that suggests fintech has the capacity to improve financial inclusion in regions that lack access to traditional financial institutions. Although it has several limitations, this study provides a noteworthy contribution to the existing literature on fintech and financial inclusion in the rural setting of Indonesia. The practical repercussions of this situation need the development of laws and practices in digital finance that are both inclusive and sustainable, taking into account the specific features and requirements of rural areas.

ADVANCED RESEARCH

Limitations in this study allow for future investigation. First, focusing on Jembrak Village restricts the results' applicability. To further understand how fintech affects financial inclusion in varied settings, future study might cover other villages or regions in Indonesia. Second, this study's qualitative technique may not represent fintech's quantitative effect. To further understand the phenomena, future research might use mixed-methods approaches, integrating qualitative and quantitative data. Surveys might monitor fintech acceptance, transaction volume, and financial inclusion indicators over time. Third, while this study found numerous characteristics impacting fintech adoption, such as perceived utility, simplicity of use, trust, social influence, technological infrastructure, and government assistance, additional essential elements may have been overlooked. Cultural norms, gender dynamics, and fintech product and service aspects might be studied in the future. Fourth, this study focuses on fintech and financial inclusion. Fintech may affect rural development in several ways, including poverty reduction, economic empowerment, and social well-being. Future research should examine how fintech affects these development outcomes and how it can promote sustainable and inclusive rural change.

Finally, since fintech evolves fast, longitudinal studies might evaluate its long-term influence on financial inclusion in Jembrak Village and other rural communities. Monitoring changes in financial service access and usage and socio-economic consequences connected with enhanced financial inclusion over time may be necessary.

Future studies can improve our knowledge of fintech's involvement in financial inclusion in rural Indonesia by addressing these constraints and broadening the research scope. Such research can help create evidence-based financial policies and practices for inclusive and sustainable rural development.

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