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Original Article

Reengineering State-Owned Banks for Unsecured Microcredit: A Business Process Perspective on Regulatory Adaptation in Indonesia

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Abstract: This study examines the implementation of unsecured microcredit in Indonesia through the lens of Business Process Reengineering (BPR) within state-owned banks. A case study approach was adopted, involving in-depth interviews with key decision-makers from three state-owned banks and representatives from the Coordinating Ministry for Economic Affairs, the relevant regulatory authority. The research addresses a gap in the literature regarding the limited exploration of BPR applications in microfinance, particularly within unsecured microcredit systems that face high default risks and limited borrower financial data. The findings underscore the critical role of digitalization in improving credit risk assessment, enhancing operational efficiency, and reducing default risk by promoting transaction transparency and comprehensive debtor profiling. This study contributes to the literature on banking and financial regulation by demonstrating how BPR principles can be effectively integrated into microcredit schemes and how digital transformation strengthens risk management practices. By providing empirical insights into regulatory adaptation and the adoption of financial technologies, the study offers valuable guidance for policymakers, banking practitioners, and scholars focused on microfinance and regulatory compliance.

Keywords: Unsecured Microcredit; Business Process Reengineering; Digital Transformation; Credit Risk Management; Microfinance Regulation.

1. Introduction

Regulations which favor one party often become a challenge for the other party involved (Bagheri & Jahromi, 2016). For example, the regulation of credit subsidies for micro-enterprises in Indonesia benefits micro-entrepreneurs but it is a challenge for banks. The Indonesian government issued Regulation of the coordinating minister for Economic Affairs No. 1/2021 on the guidelines for the implementation of microcredit. One interesting clause to note is the regulation which banks may not ask for additional collateral from micro-enterprises for credit loans of up to 100 million rupiah (Perekonomian, 2021). The additional collateral referred to in this case is such as securities, vehicle ownership books and others aside from proof that the micro-enterprise is indeed bankable. For micro-enterprises, this is a regulation which favors and makes it easier for them to access capital (Adhikary, et.al., 2021). The existing literature finds that many obstacles for micro-enterprises are not bankable in accessing credit (Prijadi, et.al., 2022). This regulation is the answer to this problem. However, on the other hand, this regulation is a new challenge for banks distributing government-assisted credit because collateral is an important aspect for risk mitigation which determines the smoothness of credit and reduces moral hazard.

Credit-distributing banks need to reengineer their business processes, especially to adapt to changing business environments and uncertain regulatory conditions (Scheer & Allweyer, 1999; Shahul, et.al., 2022). The reengineering of business process can be useful to prevent a spike in Non-Performing Loans for microcredit (Hashem, 2020). Although NPLs can be temporarily resolved through restructuring, this is only a time bomb which can explode at any time (Biglaiser & McGauvran, 2021). According to Government Regulation No. 27/2024, not-performed microcredit can be written off, but must meet certain criteria and go through certain stages. Not-performed credit insurance may be the final solution to this problem, but banks must also have strong enough capital reserves. The regulation of microcredit without additional collateral in Indonesia has been running since July 2021 through an official statement from the Coordinating Ministry for Economic Affairs of the Republic of Indonesia No. HM.4.6/101/SET.M.EKON.3/05/2021. This means that until this study was conducted, the implementation of microcredit without collateral had been running for three years.

This study evaluates the execution of microcredit without additional collateral from the perspective of engineering bank business processes. The absence of collateral in microcredit necessitates robust risk management strategies. Banks must take innovative approaches to address existing risks (Aliyev et al., 2022; Chen et al., 2018). This study is recommended to contribute to banking practices in dealing with uncertain regulatory issues. More broadly, this study is useful for regulators to formulate regulations which do not cause problems on the other side. This study enriches the literature on Business Process Reengineering (BPR) and microfinance by adapting BPR concepts to the context of unsecured microcredit, an area that has been largely overlooked in previous research. To date, studies on BPR have predominantly focused on manufacturing, telecommunications, and conventional banking, whereas its application in microcredit systems, characterized by high default risk and limited borrower financial data, remains underexplored (Al-Hattab & Mohammed; Ali & Mohammed, 2024; Wang et al., 2024).

This study bridges the gap in the literature by demonstrating how banks in Indonesia have restructured their business processes to comply with regulations that eliminate collateral requirements for microcredit. Furthermore, this research identifies key factors influencing the implementation of BPR in microfinance, including the role of borrower characteristics in credit risk mitigation, the lack of financial record-keeping among MSMEs that complicates creditworthiness assessments, and the critical function of digitalization in reducing moral hazard risks. By linking BPR principles with digital transformation in microfinance, this study introduces a novel perspective, arguing that digitalization is not merely a tool for enhancing operational efficiency but also a mechanism for risk mitigation through more transparent and accurate transaction recording. Additionally, this study highlights that the success of BPR implementation in microcredit depends on how effectively banks integrate technology with risk management strategies. This insight offers a fresh contribution to the BPR and microfinance literature, particularly within the context of dynamic regulatory environments.

2. Literature Review

2.1. Microcredit in Indonesia

Banks as an extension of the government also play a role in strengthening MSMEs through the distribution of micro-business credit programs. As stated by Central Statistics Agency (BPS), commercial banks have distributed credit of up to 1,221.02 trillion Rupiah to MSMEs in 2021. There is a significant increase of 12.19% from the previous year of 1,088.33 trillion. The ratio of MSME credit distribution to total bank credit was at 21.17 percent in March 2022. Various literature shows that the problem of micro-enterprises to date is access to capital (Bakhtiari, et.al., 2020; Domingo, et.al., 2021). This condition encourages the government to provide relaxation regulations for Kredit Usaha Rakyat (microcredit) in the Regulation of the Minister of Economy No. 1/2022 as a form of its support for MSMEs. This relaxation is in the form of increasing microcredit ceiling, changing microcredit ceiling without collateral, and changing microcredit policy to expand and increase microcredit distribution. microcredit without collateral for micro-enterprises which was initially worth 10 million to 50 million is now 10 million to 100 million (K.K.B.Perekonomian, 2022). This regulation brings convenience to MSMEs which are often considered not to meet creditworthiness in terms of collateral, but on the other hand is a challenge for Financial Institutions.

MSME credit has a high risk (Destiana, 2016; Gabriel, 2015; Sovana, 2022). Rafaella and Prabowo (2022) in their research studied the factors causing NPL in MSMEs. The study shows a sign that MSME's NPL is caused by business risk, disaster risk, both natural and non-natural disasters, and poor customer character. Furthermore, this study found internal factors of the bank as a credit provider which caused bad credit, specifically over crediting and feelings of pity. Another study which studies this problem is the research of Nursyahriana et al. (2017). Several factors were found which caused NPL in MSMEs, including customer character, customer capacity, economic conditions and collateral. Muslim and Mahfud (2012) m found that tight competition, government policies, and MSME financial management influenced this issue. In line with this study, the small size of the domestic market makes MSMEs face difficulties in repaying credit due to the high level of competition in addition to interest rates and collateral requirements. DeZoort et al. (2017) also stated that banks as credit providers have difficulty assessing MSME performance due to the low quality of financial reporting. NPL may also be caused by environmental, social, and economic conditions of the community. These conditions may include inflation, exchange rates, and GDP levels. Soekapdjo et al. (2019) argue that socio-economic conditions may be influenced by the exchange rate. High exchange rate causes people's purchasing power to weaken followed by a decrease in real income. Furthermore, this condition causes a decrease in people's welfare, as a result the ability to repay credit also decreases (Wijaya, 2019).

Microfinance regulation in Indonesia has undergone significant changes since the 1998 financial crisis (Hadad et al., 2011). These regulatory shifts also led to reduced financial access, particularly among low-income groups, due to heightened risk aversion (Rosengard et al., 2007). The development of Islamic fintech has also progressed rapidly, given that Indonesia has the largest Muslim population in the world (Fidhayanti et al., 2024). Alongside technological advancements, the expansion of online peer-to-peer lending has prompted the establishment of specific regulations to monitor these activities in Indonesia (Tritto et al., 2020). Changes in microfinance regulation often affect various aspects, including credit availability, shifts in the financial ecosystem, and institutional stability (Liu et al., 2023). This study also highlights that regulatory changes in microfinance not only impact microenterprises but also affect the banking sector.

Micro businesses are businesses which are vulnerable to fluctuations in inflation, exchange rates, and other macroeconomic conditions (Budastra, 2020). This is because micro businesses tend not to have strong capital reserve resilience to face these conditions. In addition to socio-economic conditions, the macro and global economic situation also affects MSMEs. This can be seen clearly from the Covid pandemic situation which has had a global impact. The effects of the pandemic have caused a decline in MSMEs in various sectors in Indonesia (Rosita, 2020). Various strategies have been carried out, such as marketing digitalization, expanding MSME responses to customer networks, and changing transactions towards e-commerce (Laura Hardilawati, 2020; Siagian & Cahyono, 2021). The government has also taken restructuring steps for MSME credit which has stalled due to the pandemic (Sukerta, e. al., 2021; Sutrisno, 2021). In addition to socio-economic conditions, the macro and global economic situation also affects MSMEs. This can be seen clearly from the Covid pandemic situation which has had a global impact. The effects of the pandemic have caused a decline in MSMEs in various sectors in Indonesia (Rosita, 2020).

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2.2. Business Process Reengineering

At first, Business Process Reengineering (BPR) theory was developed in 1990 by Thomas H. Davenport. Its purpose is to help companies radically restructure their organizations which emphasize a comprehensive focus on business goals. Rather than the iterative process optimization, this theory recreates phases on a full scale (Brock et al., 1997). Business reengineering aims in redesigning work processes to improve productivity and competitiveness. There are six business process reengineering recommended by Guha et al. (1993). First, build a vision of the new process. The important thing needed in this stage is to gain loyalty from the senior management, CEOs, and leaders from all major functional departments (Glick, 1993). They have to realize that their works are needed to lead to the direction of the new process (Barrett, 1994). The tough challenge which may be faced is that people who control a business process have spent most of their time working with the current business process so it is difficult to convince them that rethinking the internal process is needed (Nesrine & Habib, 2012). The second stage, the initiation stage to ensure that preparations have been made thoroughly so that radical changes in the entire organization can be anticipated (Grover et al., 1999). Each ongoing project in the reengineering process must be handled by the right team and techniques, have measurable performance targets, and can be compared with anticipated costs.

Senior managers, CEOs, or operational leaders must convey a message about the need, scope, and commitment of the reengineering project leader to all employees (Teplov et al., 2016). The third stage is the diagnosis of the process to be redesigned. This stage is very important because it can clarify the existing process and reveal hidden pathologies (Kuzmin et al., 2020). Grover and Malhotra (1997) summarized four elements in Business Process Reengineering, that as follows, first, consisting of radical changes or significant to be at least. Then the second one is that the unit of analysis is the business process as opposed to departments or functional areas. Third, business reengineering seeks to get large objectives or dramatic performance improvements. Fourth, involving information technology as an important factor in this change. In Indonesia, research on the application of Business Process Reengineering in the banking sector remains highly limited. Research on business process reengineering through digital transformation was conducted using a case study approach at Bank Indonesia. The study found that BPR increased significantly in terms of the efficiency and transparency of decision-making, as well as improved monetary policy considering that Bank Indonesia is the banking policy maker in Indonesia (Kuncoro et al., 2024).

In Singapore, a study revealed that BPR is a critical component of a competitiveness strategy model that emphasizes knowledge and customer-centric perspectives (Al-Shammari, 2023). Meanwhile, in Malaysia, research on Business Process Reengineering in the banking environment was conducted by Razalli et al. (2015) with the aim of identifying and discussing best practices in implementing Business Process Reengineering (BPR) in Islamic banks. The findings include eight recommended best practices, spesifically change management, project management, management competency, customer focus, IT infrastructure, process redesign, financial resources, and simpler bureaucratic structures. Sudha and Kavita (2019) found that business process reengineering at the State Bank of India enabled organizations to empower themselves with technology so that businesses run more innovatively and according to their needs.

Another study was conducted in Nigeria on commercial banks and micro banks on the impact of business process reengineering on organizational performance (Bako & Banmeke, 2019). The aim was to reveal the innovative and strategic changes in organizations assessed by BPR, assess the impact of BPR on organizational performance, assess the role of information technology in implementing BPR, and find out how BPR affects an organization's services. A total of 124 questionnaires were tested using multinominal regression analysis. This study found that BPR has a positive effect on organizations. Similar to the study by Bako and Banmeke (2019), Sudha and Kavita (2019) examined the impact of BPR on the State Bank of India. The aim was to measure the efficiency of BPR implementation and its impact on the financial performance of the State Bank of India. Financial performance in this study was reviewed from net assets, NPA, ROA, ROE, and Capital adequacy. The significant relationship between BPR and the financial performance of the State Bank of India was revealed. In addition, information technology support in the BPR process increases organizational efficiency.

Although numerous studies have highlighted the benefits of Business Process Reengineering, discussions within the banking sector—particularly in the domain of microcredit—remain scarce. This study addresses that gap in the literature by integrating the perspective of digital transformation into the processes of credit risk mitigation and operational efficiency, with a focus on banking strategies to overcome the challenges of limited MSME financial data, moral hazard risks, and digital literacy constraints. This study uses the Business Process Reengineering theory to analyze the current bank business process in dealing with NPL which is without additional collateral. The dimensions of the theory used in this study are described in Table 1 as follows.

Table 1. Business Process Reengineering Indicators

Process	Indicators	Operational definition
Envision	Management commitment	CEOs, and the leaders of all general functional departments must realize that they must determine the direction for reengineering
	Identify reengineering opportunities	Identifying which processes need to be reengineered
	Identification of information technology	Identify technologies which enable and are capable of providing opportunities for increased efficiency
	Alignment with corporate strategy	Compare with strategic objectives to ensure that strategic settings are aligned with the organization's competencies and infrastructure
Initiate	Initiate a reengineering team	Assign a team to study the process from start to finish activity
	Determining performance goals	Define objectives and measure the performance effectiveness of new and replaced processes
Diagnose	Process documentation	Capture the information flow process to measure costs and determine added value.
	Uncovering the source of the problem	Identify workflow activities, business policies, bureaucracy, and inappropriate roles which hinder
Redesign	Explore alternative designs	Develop and investigate alternative design solutions and consider which IT applications support them
	New process design, HR, Infrastructure, Prototype, Determine IT platform	Redesign focuses on improving the utilization of time, processing, and the role of IT implementation
Reconstruct	Installing IT platforms	Implementation of new IT systems to make contribution on the new processes
	Resetting	Ensuring that the new structure is consistent with the new processes
Monitor	Measuring Performance	Measurement of time, cost, productivity, quality, and capital of the new process compared to the process it replaces.
	Connecting with quality improvement	Continuous monitoring aimed at continuous quality improvement

Source: Guha et al. (1993)

3. Materials and Methods

This study employs a qualitative case study approach to explore the dynamics of microcredit distribution without collateral in Indonesia. This method was chosen because its ability to delve deeply into complex issues, providing a comprehensive understanding of the subject matter (Råbu & Binder, 2024). This is in accordance with the problem of microcredit regulation which involves government perceptions, bank perceptions, and MSMEs. Data collection was conducted through in-depth semi-structured interviews with key decision-makers in credit assessment from three major state-owned banks: Bank Rakyat Indonesia (BRI), Bank Negara Indonesia (BNI), and Bank Mandiri. The selection was carried out purposively, as these banks hold the largest share in the distribution of People's Business Credit (KUR), have nationwide operational coverage, and have implemented digital transformation in line with government policy. Therefore, they are considered representative in reflecting the response of state-owned banks to the regulation on unsecured microcredit. To enhance the objectivity and comprehensiveness of the analysis, additional interviews were conducted with representatives from the Coordinating Ministry for Economic Affairs, specifically Deputy V for Industry, Manpower, and Tourism, given their role in shaping national credit policies.

To ensure data validity, this study applied data saturation and triangulation by cross-verifying insights from multiple informants (Caillaud & Flick, 2017; Meydan & Akkaş, 2024; Sands & Roer-Strier, 2006). Data reliability was established through respondent validation, in which participants were asked to confirm the accuracy of transcribed responses both immediately after the interviews and following data analysis and interpretation. Thematic coding was systematically conducted using AtlasTi software, allowing for the identification of key patterns and themes relevant to the research objectives (Soratto et al., 2020). Deductive coding is carried out without closing off new indicators that emerge in the interview (Ranville & Barros, 2022). By integrating multiple data sources, rigorous validation techniques, and systematic coding, this methodological approach strengthens the credibility of the findings and ensures that the conclusions drawn are robust, contextually grounded, and applicable to both academic research and policy formulation.

4. Results and Discussion

Before entering the main indicators of business process reengineering theory, this study describes the findings of dominant default factors based on the experiences of informants. Most of them consider that character is the dominant factor causing NPL. This is conveyed in the following quotes.

"...I believe 5Cs key factors, the first one is character. Either it is proven in the research or just the perception, but the character is relatively more obey ..." (1:1)

"... Failed to pay, there are only two factors to it, the willingness to pay and the ability to pay...." (2:1)

"... If we are caught taking collateral, we can be sanctioned. I see this will initially affect moral hazard, people who were originally orderly when there was collateral will be disorderly when there is no collateral because they feel that they have nothing to lose. Our NPL has indeed increased significantly ..." (2:8)

"... One of them is if he already has discipline and experience, for example if he has worked for someone with a similar business, it means he understands better where he wants to take his business ..." (3:1)

In addition to character, the interview results found a capacity factor in assessing bad debt. Having the capacity to anticipate risks in business, the capacity to open and manage a business, take care of permits and legality, to financial management are quite important factors in preventing bad debt. This is emphasized in the following interview quotes.

"... Although the provisions of the Coordinating Minister's Regulation on microcredit are that a business that is 6 months old can be given, the bank, especially me, must first be convinced whether this business can go forward or not. One of them is if he already has discipline and experience, for example if he has worked for someone with a similar business, meaning he understands better where his business is going to be taken ..." (3:1)

"... Aside from that, capacity is too, for example, how he knows how to open a business, how to take care of the permits, how he knows how to sell his goods, what are the requirements, for example halal certification, safe packaging. It is quite difficult for us if there is no guarantee because for micro credit we do not know when it was established, what is the legality, what is the financial record like, we do not know that ..." (3:11)

Finally, the interview results found that the perception of microcredit as entirely government assistance caused credit recipients to feel no need to return it. This is described in the following quote.

"... Is this microcredit perceived as a loan or as assistance because it is from the government? I think this is important because what is voiced outside of banking is always softened with assistance. If it is an assistance, it will not be returned. As for us banks, we still call this a loan that must be returned ..." (1:2)

Next, this section will discuss the theoretical framework which is the basis of this study's perspective. There are six indicators to be discussed one by one as follows.

4.1. Envision

Business process reengineering begins with the crucial step of envision. At this stage, the organization needs to establish a commitment to achieving specific goals, identify reengineering opportunities, identify information technology needs, and their alignment with corporate strategy.

4.1.1. Management Commitment

Management focuses on digital transformation to ensure that microcredit runs smoothly. The bank encourages digitalization for transactions between the bank and micro customers and micro customers with customers. Identification of management commitment from the experiences of informants is described in the quotes below.

"...Indeed, the challenge is how to penetrate people using this technology. In addition, mentoring is only in marketing, there has been no training for agents or customers ..." (3:18)

"... Now we are directing cashless MSMEs, because it helps MSMEs to administer their business finances. Their turnover is captured, it is easier for us to verify it, what percentage of margin, what percentage of profit ..." (2:19)

"... Our microcredit Marketing has been equipped with knowledge starting from installation to use of this application until the application is still used or not. One of them is EDC, we started to reduce EDC because the maintenance is difficult, so we switched to using ABS (System-Based Application) ..." (3:21)

4.1.2. Identify Reengineering Opportunities

The interview results indicate that most MSMEs struggle with maintaining financial records, with fewer than 20% having complete and accurate sales documentation. This poses a challenge for banks in implementing business process reengineering to encourage better recording practices. Proper financial records are crucial for banks in making credit decisions, as reflected in the following interview excerpts.

"...What is the loan history like, what is the regularity of payments like, the character is close to that ..." (2:2)

"... The biggest problem of MSMEs is that they do not have orderly financial administration. Those who have sales records are less than 20% of MSMEs ..." (2:3)

"... We conclude that the process at the beginning must be correct, that is assessing willingness and ability, character and capacity, it must be correct ..." (2:9)

"... Apart from that, we also see whether he wants to be educated about bookkeeping or recording ..." (3:3)

"... Indeed, the challenge is how to penetrate people using this technology. In addition, assistance is only in marketing, there has been no training for agents or customers ..." (3:18)

4.1.3. Identification of Information Technology

Banks recognize that information technology plays a crucial role in enhancing the efficiency and accuracy of microcredit distribution to MSMEs. Digital platforms like mobile applications and QRIS enable seamless financial services, overcoming physical limitations and providing access anytime, anywhere. This is illustrated in the following interview excerpts.

"...if digitalization has been formed, I think it will not be a problem ..." (1:12)

"... Now we are directing cashless MSMEs, because it helps MSMEs to administer their business finances..." (2:4)

4.2. Initiate Reengineering Team

In microcredit process, the initiation of a business process reengineering team by the bank aims in increasing the success of the reengineering and the achievement of goals. Thus, the formation of these special teams reflects the bank's commitment to strengthening the digital service ecosystem and ensuring wider and easier access for MSMEs to financial products and services. This is explained by the informants in the following interview quotes.

"... There is one in BNI, called agent 46, so Laku Pandai in is called agent 46. So, to increase penetration, agent 46 created a separate section to support cashless transactions from MSMEs ..." (1:9)

"... In BRIspot, our mantri show up to see whoever is due today. So, this assistant goes at once to collect, and processes the new one ..." (2:17)

"Our microcredit marketing has been equipped with knowledge starting from installation to use of this application, continuing until this application is still used or not ..." (3:20)

4.2.1. Performance Goals

Bank sets the goal of reengineering the business process in the customers of microcredit acquisition process, that is to improve the performance of more efficient financial services and encourage the use of digital technology among MSMEs. With the digitalization and digital ecosystem driven by the government, the bank seeks to reduce the risk of default as a positive consequence of utilizing technology to create a more transparent and integrated financial environment. This was explained by the informants as follow.

"... If digitalization already exists now, then the government can encourage this digital ecosystem, perhaps this will help reduce the default rate because the ecosystem has already been formed ..." (1:14)

"... Now we are directing cashless MSMEs, because it helps MSMEs to administer their business finances ..." (2:18)

"... In addition, we also see whether he wants to be educated about bookkeeping or recording. One of the old debtors we also educate to use the livin merchant application, which is a cashier application ..." (3:22)

4.3. Diagnose

4.3.1. Process Documentation

Documentation of business process reengineering in microcredit involves various stages and digital tools designed to ensure efficiency and transparency in credit management to MSMEs. This is explained in the following interview quotes.

"... Maybe now only 10 or 15 percent are active ..." (3:7)

"... this is only available on android, not yet on iOS. However, the transactions are printable and there is also QRIS in it ..." (3:8)

"... Our microcredit marketing has been equipped with knowledge starting from installation to use of this application, continuing until this application is still used or not ..." (3:13)

4.3.2. Source of Problems

Several problems to digitalization were identified in this study. This is explained by the informant as follows.

"... most of their customers use cash, it will definitely be difficult to digitize transactions ..." (1:6)

"...agents use this opportunity to become brokers, yes, there is a risk here ..." (1:8)

"... because MSMEs are single fighters, if the actors are sick, or in other difficult conditions, their business will definitely be affected ..." (2:10)

"...we started to reduce EDC because it was difficult to maintain, so we switched to using ABS. But as I said earlier, people may not be able to use it ..." (3:14)

4.4. Redesign

4.4.1. Exploring Alternative Design

Bank implements a structured work system for the team, in which each team has a clear work area. This is emphasized in the following interview quotes.

"... The standard is that each agent has an area, usually based on the sub-district ..." (2:11)

"... We also collaborate with agencies to conduct training; we also collaborate with small business friends ..." (3:6)

"... One of them is EDC, we started to reduce EDC because it was difficult to maintain, so we switched to using ABS ..." (3:14)

"... If I were to suggest QRIS, then later make a free QRIS Livin merchant ..." (3:17)

4.4.2. Design the Process, Human Resources, Infrastructure

In this section, the bank utilizes digital technology which allows the team to carry out the credit process directly at the customer's home using a mobile phone equipped with features to upload data and verify the customer's location. This is emphasized as follows.

"...Laku Pandai's agents, it is informal, and the time is more flexible so that they are more accustomed to accessing banking, especially in the regions ..." (1:11)

"... We educate agents with Brimo cashless ..." (2:6)

"... We have an independent agent in the Gunungkidul area, where we know Gunungkidul is a difficult signal area ..." (3:9)

"...Agents who use these two applications are called hybrid applications ..." (3:10)

4.5. Reconstruct

4.5.1. Installing Information Technology Platform

At this stage, the interview found several information technology-based tools, such as digital payment platforms, transaction applications, and financial recording applications for micro-entrepreneurs. This is explained by the informant as follows.

"... Most of our agents already use QRIS, EDC merchants, we also used to collaborate with GoFood through digital payments ..." (1:7)

"... If they already have Brimo, the transaction appears in the application. We require those who have loans to have Brimo while educating them ..." (2:7)

4.5.2. Resetting

At this stage, the bank implements a strategy which focuses on improving service quality and risk mitigation. This step aims to shift the focus of performance on handling NPLs before adding platforms.

"... Usually NPL, if it is already 5%, we stop it first for quality improvement ..." 2:14

4.6. Monitor

4.6.1. Measuring Performance

One of the steps taken is to ensure that transactions must go through bank accounts for all MSME customers. This aims to ensure that all transactions are recorded digitally.

"... Account transactions are mandatory for MSME customers ..." (1:6)

4.6.2. Quality Improvement

Application Based System (ABS-Aplikasi Berbasis Sistem) was introduced to improve accessibility and efficiency of transaction services. This is explained by the informants in the following interview quotes.

"He (agent) can only serve sub-districts with good quality for top up. But they are not allowed to process the new customers." (2:20). The BPR process of six stages is illustrated in the following Figure 1.

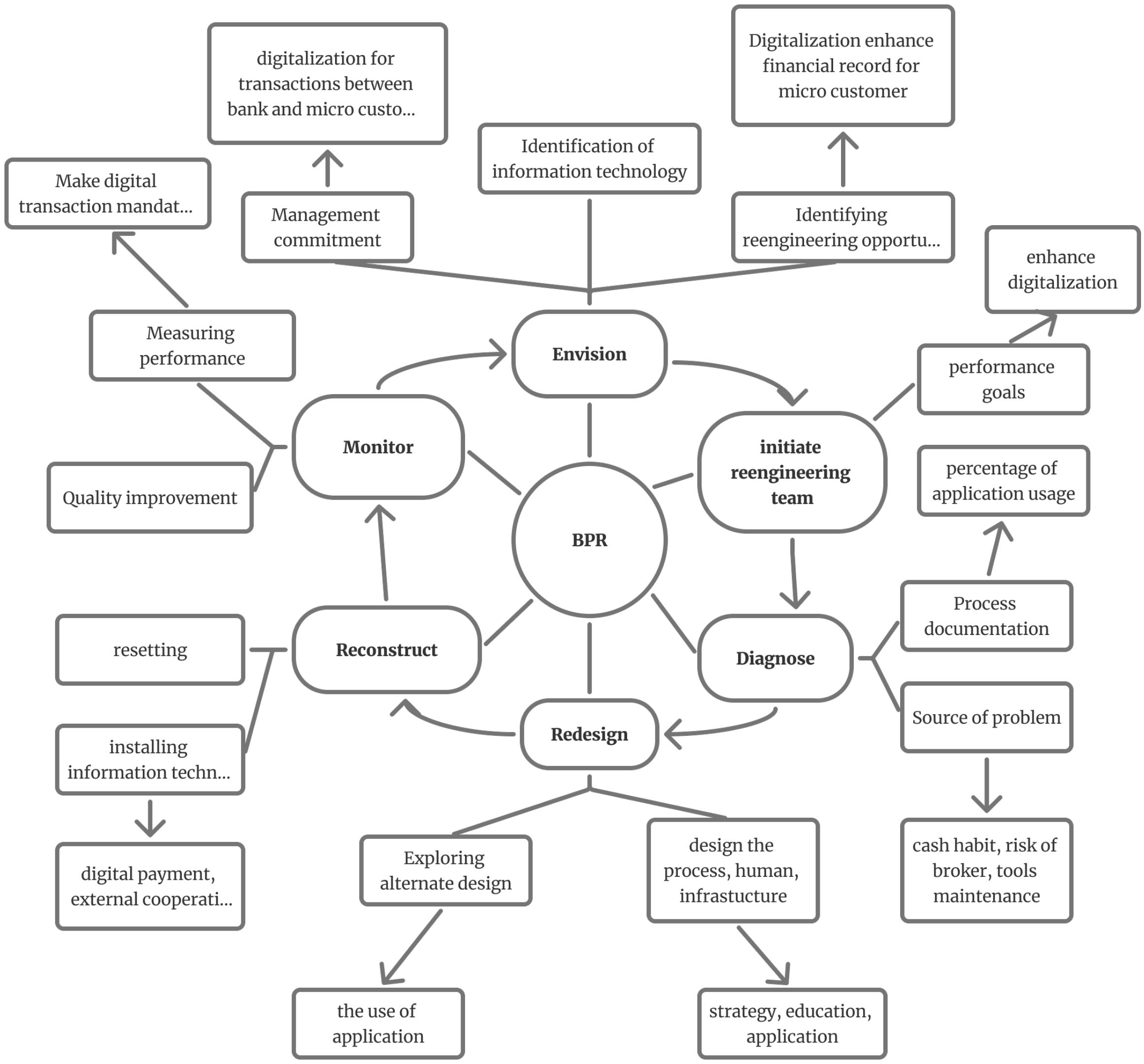

Figure 1. Visual Map of BPR 6 dimension

4.6.3. Regulatory Consequences

This study attempts to look at the problem of micro credit without additional collateral from three different perspectives, specifically from MSMEs, banks and regulators. In the way to improve the access to formal financial services for MSMEs, regulators emphasize the importance of policies which make it easier for business actors to obtain financing. As conveyed by one of the microcredit regulator representatives, the main objective of this policy is to eliminate obstacles related to additional collateral that have so far been obstacles for MSMEs in accessing formal financial services. This was expressed by the informant as follows.

"... In fact, the aim of this policy is to provide easy access to formal services for MSMEs, which have so far been slowing down by additional collateral ..." (4:1)

4.6.4. Monitoring and Evaluation

The government continues to perform the ongoing monitoring and evaluation activities in the process of implementing the distribution of micro credit without additional collateral to ensure the effectiveness and compliance of related parties with regulations. This evaluation involves microcredit Financing Policy Committee which routinely reviews policies, microcredit Supervision Coordination Forum led by BPKP. This is explained by the informants in the following quotes.

"... We continuously conduct evaluations; we have microcredit financing policy committee that periodically conducts evaluations. We also have microcredit supervision coordination forum chaired by BPKP which also conducts evaluations. In addition, this banking is inseparable from banking regulations that have been regulated by OJK, Ministry of Finance also supervises, from the implementation side, the evaluation has been complete ..." (4:8)

"... In addition, the government continues to optimize microcredit supervision coordination forum chaired by BPKP. This forum is what we hope can provide recommendations to microcredit financing policy committee, how to implement microcredit policy without additional collateral ..." (4:6)

"... The indicators used for this evaluation are direct visits to debtors following the indicators carried out by banks. We do this to see how the distribution and achievement of microcredit is at UMKM stage ..." (4:9)

The regulator emphasized that the enforcement of sanctions, such as non-payment of interest subsidies for banks which still require collateral, is one of the important factors which encourage banks to be more disciplined in implementing MICROCREDIT policies. This step is considered effective in ensuring banking compliance with the provisions set, so that microcredit program can run according to its main objectives. This is explained in the following quotes.

"... The enforcement of sanctions in the form of non-payment of interest subsidies for those who still ask for collateral is also what causes banking to be more disciplined ..."

4.6.5. Sustainability of Microcredit Program

The government views that this policy is still very relevant to be continued in the coming years. Greater focus will be given to monitoring and evaluating the policy to ensure that Non-Performing Loans (NPL) remain under control, so that MICROCREDIT program can continue to provide optimal benefits for MSMEs. This is explained in the following interview quotes.

"... The first is from the aspect of distribution, the results of the monitoring and evaluation team of the MSMEs microcredit policy. We see that banking has implemented this policy relatively well. We can see this from the achievement of the distribution of MICROCREDIT micro which continues to increase, then the NPL of MICROCREDIT, although it was reported to have increased, it is still within controllable limits ..." (4:2)

"... If we look at microcredit monitoring evaluation results, it is found that the policy can be implemented well by banks, the government will continue this policy until it continues to improve the evaluation of program implementation. So, this evaluation is related to the achievement of distribution and the level of NPL microcredit in the scheme that is exempt from additional collateral ..." (4:5)

"... The government sees this policy as still very relevant to be implemented in the following years. Perhaps more emphasis should be placed on monitoring and evaluation of this policy so that NPL can remain under control ..." (4:11)

Document studies were conducted as a complement to the analysis from a regulatory perspective. The documents analyzed were new government regulations on the elimination of bad debts for MSMEs in Government Regulation No. 47/2024. This regulation was initiated by MSMEs which had difficulty repaying credit due to the Covid-19 pandemic situation and other factors. The aim is to make it easier for MSMEs to continue their businesses and increase their economic capacity. This regulation regulates several criteria for not-performed microcredit which can be written off, including the following. First, bad credit must have been running for at least 3 years from the date the credit was disbursed. Second, not-performed credit has been declared by the bank or other financial institution which handles the credit. Third, not-performed credit cannot be resolved through collection or restructuring by the bank or other financial institution which handles the credit. Fourth, MSMEs which have bad credit must meet certain criteria, such as a turnover of 50 billion rupiah per year in maximum.

After ensuring that the various criteria above are met, the elimination of not-performed debts must go through the following stages. First, MSMEs which have not-performed debts must apply to the bank or financial institution which handles it. Second, the bank or other financial institution carries out verification and evaluation to ensure that the criteria for eliminating not-performed debts have been met. Third, if the application has been approved, the not-performed microcredit debt will be eliminated and MSMEs no longer have an obligation to pay the credit.

4.6.6. Empowerment of MSMEs

The regulator highlighted that microcredit policy without collateral of up to IDR 100 million has been designed with prudential aspects in the perpective, especially in mitigating credit risk which is the main focus of banking. This is explained by the informant in the following interview quotes.

"... From a prudential aspect, microcredit policy without collateral of up to 100 million has also taken into account the trend of banking risk mitigation, where banking focuses on credit risk mitigation compared to the capacity to repay installments ..." (4:3)

"... On the other hand, we need to empower MSMEs. These MSMEs may not be able to pay installments due to the quality of MSMEs themselves. They cannot record financial reports or are not accompanied by mentors who should help, these are two sides that we must consider both from the banking side and from the MSME side ..." (4:7).

5. Conclusions

This study evaluates the implementation of microcredit without additional collateral through the lens of bank business process reengineering (BPR), focusing on six key stages. In the envision stage, bank management demonstrates a commitment to digital transformation by utilizing information technology and involving microcredit customers to establish reliable business records for MSMEs. However, this stage faces obstacles such as limited access to digital tools and weak network infrastructure in certain regions. The initiate stage involves forming a BPR team and setting performance goals to clarify intended outcomes, yet challenges such as ingrained cash transaction habits among micro customers remain difficult to overcome. In the diagnose stage, banks begin documenting business transactions using digital records generated from customer activities, projecting a shift toward digital financial behavior through microcredit distribution channels. The redesign stage explores alternative operational models, including limiting the scope of service areas and strengthening human resources by engaging selected bank customers as agents to facilitate local transactions. This aims to foster a digital ecosystem, making transactions more accessible and reducing the risk of non-performing loans. The reconstruct stage is marked by the development of application-based platforms and QR code payment systems to support micro-business transactions.

Finally, the monitor stage focuses on supervising credit restrictions based on predefined non-performing loan (NPL) thresholds to manage credit risk more effectively. While digital transformation offers numerous advantages, such as increased operational efficiency and enhanced competitiveness, it also presents significant challenges, including resistance to change and low digital literacy. Overcoming these hurdles through strategies like promoting a digital culture and leveraging external support is essential for enabling MSMEs to successfully transition to a more digital and resilient financial environment (Omowole et al., 2024). The integration of digital technologies requires careful planning and execution to ensure that banks can adapt to changing market demands and customer needs (Sardjono et al., 2024). Additionally, the collaboration between banks and fintech companies, while beneficial, introduces vulnerabilities that need to be managed through robust supervision and regulatory frameworks (Broby, 2021).

The successful implementation of digital transformation strategies in banking requires a balanced approach that accounts for both the opportunities and challenges posed by emerging technologies. This study aims to evaluate how state-owned banks in Indonesia implement unsecured microcredit in response to new regulations that prohibit the requirement of additional collateral up to a specified threshold. Specifically, the research investigates how the principles of Business Process Reengineering (BPR) are applied to adapt to this policy shift. Additionally, the study seeks to identify the key factors that influence the successful implementation of BPR within the microfinance sector, with a particular emphasis on the role of digitalization in enhancing risk management and operational efficiency. As such, this research is expected to provide both conceptual and practical contributions to the development of resilient banking business processes, particularly in the face of evolving regulatory frameworks and the inherent risks associated with unsecured microcredit.

5.1. Research Implications

This study is theoretically valuable for advancing and deepening the understanding of business process reengineering, particularly in the context of unsecured microcredit. Traditionally, non-performing loans have been closely linked to the 5Cs principle, with collateral remaining a dominant factor. This study addresses a gap in cases where collateral requirements are removed. It also offers practical contributions for banking practitioners involved in business process reengineering, as the research focuses on the three largest state-owned banks distributing microcredit in Indonesia. The strategies and steps adopted by these institutions can serve as valuable insights for making informed decisions during the transformation of banking operations. Furthermore, the study includes interviews with regulators to provide a holistic and objective perspective on the challenges surrounding unsecured microcredit. It may also serve as a reference for policymakers in formulating regulations that support micro businesses while aligning government development goals with the commercial objectives of state-owned banks, which are still required to maintain profitability.

5.2. Research Limitations

This study was conducted in Indonesia in response to regulations concerning unsecured credit for micro businesses. A qualitative approach was employed, allowing information and data to be gathered based on the experiences of informants from the bank's perspective. Future studies could include comparisons with other countries that have different cultural contexts. Additionally, further research could explore this issue from the perspective of microcredit customers using a quantitative approach to enhance the objectivity and comprehensiveness of findings related to unsecured microcredit.

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