AFRE Accounting and Financial Review, 7(1): 66-73, 2024
https://jurnal.unmer.ac.id/index.php/afr

Digital Transformation Risk Management in Credit Channeling

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Article info

Keywords:
Credit Channeling, Digital Transformation, P2P Lending, and Risk Management.

Abtract

This study aims to evaluate the implementation of credit risk management at Bank XYZ in the context of providing credit through channeling cooperation with P2P platforms. Using a qualitative research method with a case study approach, the study involves senior employees and key officials of Bank XYZ directly involved in credit risk management practices, as well as partner institutions. Data collection is conducted through document analysis and interviews, utilizing primary and secondary data. The findings reveal that while Bank XYZ has successfully integrated digital technology to streamline its credit provision processes, significant challenges remain in managing credit risk due to borrower defaults, ensuring data security, and maintaining regulatory compliance. Although comprehensive risk identification processes, strict data security policies, and robust access controls are in place, improvements are needed in updating risk analysis procedures and regularly reassessing risk appetite and tolerance. This research provides valuable insights for companies to enhance their credit risk management practices and for regulators to formulate appropriate policies for the fintech industry. Supported by the ISO 31000 framework, the study aims to enhance the robustness of risk management practices at Bank XYZ, aligning them with international best practices in risk management.

ISSN (print): 2598-7763
ISSN (online): 2598-7771

Citation: Hayati, A., and Lisdiono, P., (2024). Digital Transformation Risk Management in Credit Channeling. AFRE Accounting and Financial Review, 7(1): 66-73

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JEL Classification: *G20; G21; G23*
DOI: https://doi.org/10.26905/afr.v7i1.10334

1. Introduction

Digital transformation has become crucial in the banking industry today (Diener & Špaček, 2021; Filotto et al., 2021; Ionașcu et al., 2023; and Lottu et al., 2023). Traditional banks need to adapt to new technological trends to remain competitive. Traditional banks have lagged behind digital banks in terms of growth and digital technology adoption. Digital banks achieved twice the growth compared to traditional banks in 2020 (Accenture, 2021).

Through digital transformation, banks can provide new and innovative services to customers (Omarini, 2017; Kitsios et al., 2021; and Shanti et al., 2023). The Blueprint of Digital Transformation in Banking (OJK, 2021) explains several benefits of digital transformation that can expand accessibility to banking services, especially in areas that are difficult to reach by traditional banking infrastructure. Another benefit is that digitalization can optimize internal bank processes, reduce operational costs, and improve efficiency (Grassi et al., 2022; Zhu & Jin, 2023; and Shehadeh et al., 2024).

According to the Financial Services Authority (OJK, 2019), there are key challenges faced in the digital transformation of the banking and financial sector in Indonesia, namely security and data privacy. With the adoption of digital technology, the amount of data collected and processed significantly increases. Therefore, it is important to ensure adequate protection of customer data and maintain the security of digital systems to prevent cyber threats (Wang et al., 2020; Aguayo & ´Slusarczyk, 2020; Al-alawi & Al-Bassam, 2020; Jayalath & Premaratne, 2021; Ghelani et al., 2022; and Saeed et al., 2023). The second challenge is organizational culture change and human resource development. Transforming the organizational culture to embrace digitalization involves changing long-standing habits and mindsets, which can be met with resistance from employees. Additionally, developing the necessary skills and competencies in human resources requires significant investment in training and continuous learning to keep pace with technological advancements.

In a study conducted by Weerawarna et al. (2023) they emphasize the importance of collaboration and partnership between banks and technology companies to accelerate the adoption of digital technology and overcome challenges faced by banks in digital transformation. One form of digital transformation in the banking industry is the use of peer-to-peer (P2P) lending platforms to provide loans to the micro segment. P2P lending is a form of financial technology (fintech) that connects borrowers with investors through an online platform. In the channeling partnership between banks and P2P platforms, the bank provides loan funds to the P2P platform to be distributed to borrowers.

The channeling partnership between Bank XYZ and a P2P platform brings inherent risks that need to be effectively managed. These risks by Dorfleitner et al. (2017) in the context of P2P lending, include credit risk, information security risk, reputation risk, and compliance and regulatory risk. These risks are also suspected to occur in Bank XYZ, which has adopted digital technology in providing channeling credit. With the integration of digital technology, Bank XYZ may face credit risk as borrowers facilitated through the digital platform may still default on their loans. It is crucial for the bank to carefully assess the creditworthiness of these borrowers to minimize the risk of defaults.

Previous research conducted in the banking industry tends to be less focused on evaluating risk management in digital transformation, especially in the context of credit provision through channeling partnerships with P2P platforms. Many studies have been conducted related to the utilisation of digital technology in the banking industry (Mhlanga, 2020; Garg et al., 2021; Shabri et al., 2022; and Utami & Permatasari, 2023), but have not specifically discussed risk management evaluation related to fund distribution partnerships with P2P platforms. Furthermore, there are inconsistencies in research findings regarding the effectiveness of digital risk management strategies. While some studies indicate that digital partnerships enhance operational efficiency and customer satisfaction (Weerawarna et al., 2023), others highlight significant challenges in maintaining data security and regulatory compliance (Dorfleitner et al., 2017).

This research aims to fill this gap by evaluating the risk management strategies in digital transformation, specifically in the context of credit provision through channeling partnerships with P2P platforms at Bank XYZ. Bank XYZ, which underwent digital transformation in 2020, has developed a digital technology risk management system by collaborating with third-party technology providers and considering customer needs to provide easy, fast, and secure banking services.

This research explores the risk management practices of Bank XYZ in their channeling collaboration within the micro banking segment using a P2P platform. The aim is to analyze the policies, procedures, and risk control mechanisms implemented by the bank. The study provides deeper insights and understanding of risk management in the digital transformation of credit provision through channeling partnerships with P2P platforms in the banking sector. By analyzing the digital transformation implementation and risk management of Bank XYZ, this research contributes to expanding knowledge and understanding of risk management in the digital transformation of banking. Valuable recommendations will be provided to Bank XYZ and other financial institutions to enhance the effectiveness of risk management in the context of digital transformation.

The research findings indicate that while Bank XYZ has successfully integrated digital technology to streamline its credit provision processes, several challenges remain. These challenges include managing credit risk due to borrower defaults, ensuring data security to prevent information breaches, and maintaining regulatory compliance amidst evolving fintech regulations. Despite implementing comprehensive risk identification processes, strict data security policies, and robust access controls, the bank still faces areas that require improvement. These include updating risk analysis procedures according to the latest regulations and regularly reassessing risk appetite and tolerance to stay relevant with internal and external conditions (Settembre-Blundo et al., 2021 and Hac et al., 2021).

This research is supported by the ISO 31000 theory, which provides a framework for effective risk management practices. The ISO 31000 standard emphasizes the importance of identifying, evaluating, and controlling risks within an organization. By adopting this framework, the study aims to enhance the robustness of the risk management practices employed by Bank XYZ in their digital transformation journey. The ISO 31000 theory serves as a valuable reference to ensure that the research aligns with international best practices in risk management.

2. Research Framework

The concept framework of this research is based on risk management, which includes risk control. Risk management involves a series of steps to identify, analyze, evaluate, control, and monitor risks in the context of using digital technology. This is done to ensure that arising risks can be well-identified and effectively managed.

This research is based on a conceptual framework consisting of three main stages: a) Risk Identification in the Credit Provision Process through Channeling Cooperation between P2P Platforms and Bank XYZ. Conduct an analysis of the credit provision process through channeling cooperation between the P2P platform and Bank XYZ to identify potential risks that may arise, which includes evaluating the overall process such as loan application, credit assessment, fund disbursement, and payment monitoring. After identifying potential risks, categorize these risks according to their nature and characteristics, considering not only risks based on OJK Regulation No. 18/POJK.03/2016 but also other relevant risks that may arise in this process. For each identified credit risk, measure the potential impact and frequency of occurrence, where the impact is based on potential financial or reputational losses and the frequency is based on the likelihood of the risk occurring within a certain timeframe. b). Evaluation of the Effectiveness of Risk Controls in the Credit Provision Process through Channeling Cooperation between P2P Platforms and Bank XYZ. Evaluate the effectiveness of the risk controls implemented by Bank XYZ in the credit provision process through channeling cooperation with the P2P platform using the RCSA method, gathering information on the implemented risk controls, including policies, procedures, and control mechanisms. Assess the adequacy of these risk controls in each identified credit risk category, focusing on the effectiveness of the implemented controls in mitigating risks, quality of control on, implementation, monitoring activities, and the suitability of the controls with the risks faced. Provide recommendations for improvements or enhancements to the risk controls, based on the evaluation results, which may include policy adjustments, procedure improvements, increased monitoring, and training and education for relevant personnel to enhance the effectiveness of risk controls. c) Recommendations for Strengthening Risk Management in the Credit Provision Process through Channeling Cooperation between P2P Platforms and Bank XYZ. Develop recommendations to improve the effectiveness of risk management in the credit provision process through channeling cooperation between the P2P platform and Bank XYZ, outlining steps that can be taken by Bank XYZ to strengthen risk management in the process. Provide more effective risk control recommendations for each identified credit risk category, tailoring specific control recommendations based on the characteristics of each risk category to ensure comprehensive and effective risk mitigation.

Research Strategy

This study focuses on a case study of Bank XYZ to evaluate the implementation of digital transformation risk management in the credit channeling process. By employing a case study design, the research aims to provide an indepth understanding of credit provision through channeling cooperation with P2P platforms at Bank XYZ. The case study design allows for the identification of causal relationships between variables, offering valuable insights for both practitioners and academics. Data collection methods include in-depth interviews with key stakeholders such as representatives from Bank XYZ, P2P platforms, and the Financial Services Authority (OJK), as well as document analysis. The interviews aim to gather comprehensive insights into risk management practices, policies, and the challenges and opportunities faced in adopting digital technology.

The research employs semi-structured interviews guided by adapted questions from previous studies to delve into the digital transformation, channeling cooperation, and risk management processes. Additionally, document analysis is conducted to collect relevant policies, performance data, and risk reports, providing a holistic understanding of the practices implemented by Bank XYZ. The combination of interviews and document analysis ensures a rich and comprehensive data set. The findings are expected to contribute significantly to the knowledge and understanding of risk management in digital transformation and credit channeling processes. The study aims to offer relevant recommendations for Bank XYZ to improve or develop digital transformation implementations, channeling cooperation with P2P platforms, and credit channeling risk management.

Research Approach

In this case study, Bank XYZ was chosen as the research subject because it has implemented channeling cooperation with P2P platforms in providing credit to its customers. The selection of Bank XYZ is highly relevant to the research objectives and contributes to the understanding of risk management in the credit channeling process. Focusing the research on Bank XYZ allows the researcher to gain in-depth insights into how the bank manages risks associated with digital transformation and cooperation with P2P platforms. This research can also contribute to understanding the benefits, risks, and challenges associated with channeling cooperation with P2P platforms in credit provision. By selecting Bank XYZ as the research subject, this study is expected to provide a more comprehensive understanding of risk management in the credit channeling process and offer valuable insights for Bank XYZ as well as the development of knowledge in this field.

3. Data and Methods

This research employs a qualitative case study approach to evaluate the implementation of credit risk management at Bank XYZ in the context of providing credit through channeling cooperation with P2P platforms. The choice of Bank XYZ is based on its relevant experience in digital transformation and cooperation with P2P platforms, which provides valuable insights into risk management practices. The case study design allows for an in-depth understanding of the subject, generating findings that are relevant for both practitioners and academics.

The data for this study is derived from both primary and secondary sources. Primary data is collected through in-depth interviews with key stakeholders, including senior employees of Bank XYZ, representatives from P2P platforms, and regulators from the Financial Services Authority (OJK). These interviews aim to gather detailed information on credit risk management practices, policies, and procedures, as well as the experiences and perspectives of the stakeholders involved. Secondary data includes internal documents from Bank XYZ, such as credit policies, risk reports, and historical credit data, as well as external data from P2P platforms, such as borrower profiles and loan performance metrics.

Data collection involves multiple methods to ensure comprehensive coverage and triangulation. The primary data is collected through semi-structured interviews using an interview guide adapted from previous studies, tailored to focus on the specifics of channeling cooperation between P2P platforms and banks. These interviews are conducted with nine respondents, including senior employees directly involved in the channeling process at Bank XYZ, representatives from P2P platforms, and government regulatory officials. This approach ensures diverse perspectives and comprehensive insights into the risk management practices at Bank XYZ.

The collected data is analyzed using a combination of qualitative data analysis methods. The analysis techniques included data reduction, data presentation, and conclusion drawing and verification, which includes data reduction. Data reduction involves selecting and focusing on relevant data while discarding non-essential information. The reduced data is then systematically presented to build a comprehensible narrative of the findings. Finally, conclusions are drawn and verified to ensure their robustness and reliability.

Additionally, content analysis is employed using Nvivo 12 Pro Plus to identify and categorize risks, evaluate risk control measures, and uncover thematic findings from the data. This involves coding the data to identify patterns and themes related to digital transformation risk management in the credit channeling process. The results are visualized using tools like concept mapping diagrams and word clouds to facilitate understanding and communication of the findings.

The research variables include the various types of risks associated with digital transformation in the credit channeling process, such as compliance risk, financial risk, operational risk, and reputational risk. These variables are measured through the coding and analysis of interview transcripts and document content. The effectiveness of risk management practices is evaluated based on the identified risk control measures and their implementation within Bank XYZ. The study aims to assess how well these measures mitigate the identified risks and what improvements can be made. By integrating interviews, document analysis, and content analysis, this research provides a comprehensive evaluation of credit risk management in digital transformation at Bank XYZ, offering valuable insights and recommendations for improving risk management practices in the banking sector.

4. Result

Risk Identification and Categorization

The validation process identified several key risks associated with credit provision through channeling cooperation between P2P platforms and Bank XYZ. These risks include loan defaults by borrowers, which impact the bank's asset quality and financial stability; insufficient funds to meet withdrawal demands due to credit transfers to P2P platforms, leading to liquidity issues; and operational errors such as data inaccuracies, system failures, or breaches of internal policies that disrupt operations. Additionally, misuse of the platform or regulatory violations can damage Bank XYZ's reputation, resulting in loss of customer trust and potential legal repercussions. Poor data management practices, including inadequate access controls and data security measures, pose risks of data breaches, compromising personal and financial information of customers.

Bank XYZ categorizes these risks into operational, credit, and compliance risks based on their nature. Operational risks include system and data errors, and operational mishaps. Credit risks encompass loan defaults and insufficient funds, while compliance risks involve regulatory violations and ethical breaches. P2P platforms focus on credit risks and data security risks, emphasizing the need for robust data protection measures and effective credit risk assessment processes. The Financial Services Authority (OJK) recommends aligning these risk categories with regulatory reporting and oversight requirements to ensure comprehensive risk management and regulatory compliance. This structured categorization and alignment with regulatory standards underscore the importance of a robust risk management framework to mitigate potential risks in digital transformation and credit channeling processes.

Risk Measurement and Control Effectiveness

Bank XYZ measures the impact and frequency of identified risks using metrics such as potential loss magnitude, likelihood of occurrence, and recovery time. This approach involves quantifying risks based on their potential financial impact and occurrence probability, ensuring a thorough understanding of the risks faced. P2P platforms utilize statistical analysis and predictive models, leveraging historical data, market trends, and industry comparisons to assess risks. This structured approach enables both Bank XYZ and P2P platforms to gain a comprehensive understanding of potential risks and the effectiveness of their risk management strategies, ensuring preparedness for various risk scenarios.

Bank XYZ and P2P platforms implement effective isk control measures, including comprehensive risk identification, measurement, analysis, and control mechanisms. Bank XYZ has a dedicated risk response unit responsible for addressing identified risks and ensuring proper control implementation. P2P platforms also have stringent policies, procedures, systems, and monitoring practices in place to mitigate risks in the channeling process. These measures are crucial in maintaining the integrity and security of credit channeling operations. However, there are areas for improvement, such as updating risk analysis procedures and regularly reassessing risk appetite and tolerance to stay relevant with internal and external conditions. Continuous improvement in these areas is essential to adapt to the evolving challenges of digital transformation and ensure robust risk management practices.

5. Discusssion

The Role of Digital Technology Risk Management in Credit Provision through Channeling Cooperation with P2P Platforms.

Credit provision through channeling cooperation with P2P platforms, the risk management function at Bank XYZ is crucial. Bank XYZ has implemented a comprehensive risk management system to identify, measure, control, and monitor risks associated with digital technology usage. This system includes steps such as risk identifi-cation, risk analysis, risk evaluation, and risk control. Bank XYZ also regularly evaluates and monitors risks to ensure the effectiveness of the implemented risk control measures. For example, risk identification encompasses data security risks, system failure risks, data integrity risks, and other risks arising from digital technology usage in the credit provision process.

Risk management at Bank XYZ also plays a role in ensuring the security of customer data and other sensitive information. Bank XYZ adopts proper security practices and robust security systems to protect data from potential threats. Additi-onally, Bank XYZ ensures compliance with applicable regulations and standards in the banking industry. Implementing policies and procedures that ensure regulatory compliance helps Bank XYZ maintain its reputation, avoid fines or sanctions, and build customer trust. However, there are areas that need improvement, including updating risk analysis procedures and periodically reassessing risk tolerance to stay relevant with changing internal and external conditions. This finding is in line with Fachryana (2020) and Irsyad et al., 2024) research that banks must make changes to risk analysis procedures to adjust to changes in the business environment.

Risk Assessment in the Credit Provision Process through Channeling Cooperation with P2P Platforms

The risk assessment process in credit provision through channeling cooperation with P2P platforms at Bank XYZ involves using appropriate measurement metrics such as potential loss magnitude, likelihood of occurrence, and recovery time. Bank XYZ employs predictive models and statistical analysis to measure risk impact and frequency, leveraging historical data, market trends, and industry comparisons. This risk assessment helps Bank XYZ understand the potential risks they face and the effectiveness of the risk management strategies implemented.

The effectiveness of risk controls is measured through various control mechanisms implemented by Bank XYZ, such as policies, proce-dures, systems, and stringent monitoring. Bank XYZ has a dedicated risk response unit responsible for addressing identified risks and ensuring pro-per control implementation. Additionally, P2P platforms also implement effective risk controls, including policies, procedures, systems, and care-ful monitoring to mitigate risks in the channeling process. Nevertheless, there is a need to update risk analysis procedures and periodically reassess risk tolerance to ensure their relevance and effectiveness in changing conditions.

This research shows that while Bank XYZ has successfully integrated digital technology to enhance the credit provision process through channeling cooperation, it still faces significant challenges in managing credit risks. These findings are relevant to the ISO 31000 theory, which emphasizes the importance of identifying, evaluating, and controlling risks within an organization. Furthermore, this research aligns with previous studies highlighting the importance of comprehensive risk management in handling digital technology risks and fintech collaboration (Mishchenko et al., 2021; Sapian et al., 2021; Vučinić & Luburić, 2022; and Huang & Wang, 2023).

6. Conclusion and Suggestion

Conclusion

The results of the study show that Bank has prioritized these aspects by implementing adequate security measures such as data encryption, strong security protocols, and clear policies on data access and use. Bank complies with regulations on data security, thus maintaining trust and data integrity in the credit provision process through collaborative distribution with the P2P platform..

Suggestion

This research is limited primarily by its focus on Bank XYZ, potentially restricting the applicability of its findings to other banks or financial institutions engaged in credit provision through P2P channeling collaborations. Each institution operates within unique contexts and faces varying risks related to digital transformation and credit processes. Therefore, future studies should involve a more diverse sample to ensure a comprehensive understanding of risk management in this context. Additionally, the use of interviews with nine respondents, predominantly from Bank XYZ, P2P platform representatives, and regulatory bodies like OJK, may limit the representativeness of the findings. A broader and more varied sample en-compassing different financial entities and stake-holders would provide deeper insights into effec-tive risk management strategies. Furthermore, the research did not explore external factors such as regulatory changes, technological advancements, and market conditions, which significantly influ-ence risk management effectiveness in credit pro-vision through P2P channeling collaborations. In-cluding these factors in future studies would offer a more holistic view and guide financial institu-tions in adapting and improving their risk mana-gement practices amidst evolving environments.

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