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Bank Health and OJK Regulations in Indonesia's Digital Banking Stability

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Abstract

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The banking sector plays a crucial role in supporting economic growth through financial intermediation, transaction services, and the facilitation of monetary policy. Bank health serves as a fundamental foundation for financial system stability, as it directly influences public trust, credit distribution capacity, and resilience to systemic risks. In Indonesia, the supervision of bank health is regulated by the Financial Services Authority (*Otoritas Jasa Keuangan*/OJK) through the Risk based Bank Rating (RGEC) approach. However, the digitalization era has created new challenges in the form of cyber risks, data security concerns, and competitive pressures from fintech innovations. From the perspective of signaling theory, banks utilize financial indicators, such as the Capital Adequacy Ratio (CAR), to deliver positive signals to investors regarding their stability, reliability, and credibility. This study applies a literature review method to analyze bank health, regulatory roles, digitalization risks, and the relevance of signaling theory in the Indonesian banking sector. The findings highlight that strong governance, strict regulation, and secure technology adoption are essential to ensure that banks remain healthy, stable, and inclusive.

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1. Introduction

The banking sector is a fundamental pillar of the modern economy. As an intermediary institution, banks not only collect funds from the public but also channel them back in the form of credit to the real sector, such as industry, trade, and services. This function makes banks the "driving force" of the economy, where the sustainability of public financial activities is highly dependent on the stability and health of the banking system. Without healthy banks, the economic engine can be disrupted, especially when facing global and domestic economic turmoil.

Bank health is measured through certain parameters that reflect financial resilience and its ability to meet obligations to customers. This health indicator is important because it is directly related to the stability of the national financial system. A healthy bank can maintain public trust, provide access to financial services, and assist in the implementation of monetary policy from the central bank. According to Hidayat et al. (2021), measuring the health level of banks, especially digital banks, is very crucial given the increasing public dependence on technology-based services.

In Indonesia, regulations regarding bank health were initially under the authority of Bank Indonesia through PBI No. 13/1/PBI/2011, which emphasized the Risk-Based Bank Rating (RGEC) approach. However, since the establishment of the Financial Services Authority (OJK), the supervision and regulation functions have shifted to this institution. Currently, the health assessment of commercial banks is regulated under POJK No. 4/POJK.03/2016, while Rural Banks (BPR) and Sharia Rural Banks (BPRS) are subject to specific regulations issued by the Financial Services Authority (OJK). This regulation not only ensures banks' compliance with minimum standards but also serves to prevent systemic risks that could disrupt national financial stability (Kaabachi et al., 2020).

The development of digitalization has brought significant changes to the banking industry. The presence of digital banks and the integration of financial technology (fintech) open up opportunities for efficiency, accessibility, and financial inclusion. However, digitalization also poses new risks, especially related to data security, cyberattacks, and dependence on digital systems. Rabbani et al. (2021) emphasize that digitalization can increase the risk of financial stability if not balanced with an adequate regulatory framework. This is in line with the findings of Kohardinata et al. (2020) which show that banking digitalization and the presence of peer to peer lending fintech can pose additional risks to bank profitability.

In the context of corporate financial management, signaling theory is one approach to understanding how banks communicate their financial condition to the public. According to Irawati et al. (2019), an increase in capital ratios, such as the Capital Adequacy Ratio (CAR), can serve as a positive signal to investors regarding the bank's resilience in facing financial risks. With information asymmetry between bank management and external parties, financial signals become important to reduce uncertainty. A bank with a high CAR is assumed to have good fund management capacity and a low risk of default. Financial statistics related to banking capital, the capital adequacy ratio (CAR) measures how well a bank can run its operations based on the amount of capital it has (Setiawati, 2020).

Therefore, it is important to examine bank health in relation to OJK regulations, digitalization challenges, and the relevance of signaling theory. This literature study aims to present a comprehensive analysis of how regulation, technology, and financial theory interact in shaping the resilience of Indonesian banking. Through an academic perspective and current industry practices, this study provides an overview that Indonesian banking needs a balance between strict regulation, secure digital innovation, and transparent financial communication to the public.

2. Literature Review

2.1. Bank Regulation and Supervision

Since the establishment of the Financial Services Authority (OJK), the banking regulatory system in Indonesia has undergone a fundamental change, which is directed at a risk-based approach. This change is not just a technical shift in assessment but also reflects the regulator's commitment to creating a healthier, more transparent, and adaptive financial system to global challenges. Bank health level assessment now uses the RGEC method (Risk Profile, Good Corporate Governance, Earnings, and Capital), which includes factors of risk management, corporate governance, profitability, and capital adequacy (Hidayat et al., 2021). This method is considered more comprehensive than the previous method because it not only assesses financial conditions but also the quality of governance and risk management strategies implemented by the bank.

This RGEC-based regulation allows authorities to anticipate potential systemic risks earlier, so that the impact that could shake the stability of the national financial system can be minimized. In addition, the implementation of RGEC also strengthens public trust, as the public feels more protected by consistent and comprehensive supervision. Public trust itself is a vital element for banking, as banks essentially operate on the principle of trust.

Kaabachi et al. (2020) add that bank size has been shown to influence the relationship between bank health levels and firm value. This is becoming increasingly relevant in the digital era, as digital banks have different characteristics compared to conventional banks, both in terms of business model, risk profile, and capital structure. Thus, the regulatory framework implemented by OJK functions as an important pillar in balancing the need for innovation with efforts to maintain sustainable national financial stability.

2.2. Digitalization and Signaling Theory

The digital era has accelerated the transformation of the banking industry, presenting great opportunities as well as new risks that cannot be ignored. The development of information technology makes banking services more efficient, faster, and able to reach more layers of society. According to Rabbani et al. (2021), digitalization has indeed been shown to increase operational efficiency, lower transaction costs, and expand access to financial services. However, on the other hand, this development also poses serious threats in the form of data security issues, customer privacy, and vulnerability to increasingly complex cyberattacks.

In addition, the increasing interaction of banks with fintech companies also increases the complexity of the risks faced, especially in maintaining bank profit stability (Kohardinata et al., 2020). Tight competition and collaboration with fintech require banks to balance innovation with protection against potential losses.

Therefore, banks are required not only to adapt to technological developments but also to strengthen risk management in order to maintain public trust.

Within the framework of signaling theory, banks need to send credible financial information to the market to reduce information asymmetry. Irawati et al. (2019) confirm that capital indicators such as the Capital Adequacy Ratio (CAR) function as a positive signal to investors regarding the bank's financial health. This is reinforced by Ben Hassen et al. (2020) who found that digital innovation and sharia compliance during the COVID-19 crisis also became important signals in maintaining banking stock performance. Thus, signaling theory is very relevant to explain the bank's communication strategy to stakeholders, especially amid the dynamics of digitalization and the ever-evolving global challenges.

3. Methods

This research uses a literature study method with a descriptive qualitative approach. The choice of a literature study was made because it is considered the most suitable for a deep examination of the phenomena of regulation, bank health, digitalization, and the relevance of signaling theory to the condition of banking in Indonesia. This method allows researchers to examine various existing academic sources, both in the form of scientific articles, official regulations issued by authorities, and relevant recent research results. Thus, the research is not only descriptive but also analytical in linking theory with practice in the field.

The data collection technique was carried out through a systematic search of indexed international and national journals. The research process begins with the stage of identifying the main topics, namely bank health, OJK regulations, banking digitalization risks, and the application of signaling theory in the Indonesian context. After that, a literature screening was carried out with strict inclusion criteria: only scientific articles published in 2019 and above were considered, with the main focus on the Indonesian context or research that has high relevance to the banking sector. Articles that did not meet academic standards, were not up-to-date, or had no direct connection to the research theme were consistently excluded from the analysis so that the quality of the study was maintained.

The next stage is content analysis. In this stage, the collected literature is not only read but also studied in depth to find recurring and interconnected themes, concepts, and empirical findings. This analysis provides a more comprehensive understanding of the relationship between regulation, digitalization, and signaling theory in maintaining bank health. For example, the literature from Hidayat et al. (2021) emphasizes the importance of RGEC as an instrument for measuring bank health, while Rabbani et al. (2021) highlight how digitalization risks can affect banking stability.

This literature study method does not only function to collect information but also to produce a synthesis of literature, which is to connect the results of previous research with the context of the current research. With this approach, this research is able to present a comprehensive picture of both the challenges and strategies of Indonesian banking in maintaining financial health. The final result of this method is a narrative analysis that explains the close interaction between OJK regulations, digital innovation, and signaling theory, along with their direct implications for the stability of the national financial system.

4. Results

The results of this study show that the health of Indonesian banking is fundamentally determined by the integration of three main elements, namely the regulations set by OJK, the dynamics of increasingly rapid digital transformation, and how banks are able to convey financial signals to external stakeholders. These three elements are not standalone factors, but are closely interrelated and form a single large framework that is the main pillar in maintaining sustainable national banking stability. In other words, the success of the banking industry in Indonesia does not only depend on the internal strength of each bank, but also on how well regulations are implemented, how digitalization is managed, and how financial signals are perceived by the market.

From a regulatory perspective, OJK has a very fundamental role, and can even be said to be the backbone in supervising and assessing bank health. This role is realized through the application of the RGEC (Risk Profile, Good Corporate Governance, Earnings, and Capital) assessment method. The RGEC approach allows authorities to conduct a comprehensive assessment of the bank's internal condition. This assessment includes various crucial aspects, ranging from the risk management implemented, the quality of governance carried out, the bank's ability to consistently generate profits, to the capital adequacy it has to bear various potential risks. According to Hidayat et al. (2021), the use of RGEC is proven to be relevant not only for conventional banks but also in assessing the health of digital banks which are now growing rapidly and becoming an important part of the modern Indonesian banking industry. Banks that are able to maintain a low-level risk profile, consistently apply governance in accordance with the principle of prudence, and have strong capital, will be significantly more able to face external pressures, including global uncertainty that is often difficult to predict.

In addition, OJK regulations also emphasize the importance of consistency in maintaining the health of banks across all sizes, whether they are large-scale conventional commercial banks, newly developed digital banks, or Rural Banks (BPR) that operate in a local scope. The results of Kaabachi et al.'s (2020) research show that bank size has a significant role in strengthening the relationship between bank health levels and firm value. This indicates that large banks have a greater capacity to utilize good health conditions as added value in increasing public trust and strengthening competitiveness. Conversely, small banks face much greater challenges due to limited capital, technology infrastructure, and human resources. Thus, OJK regulation does not only function as a formal supervisory instrument but also as a strategic guide to ensure that every bank, regardless of its size or type, remains in a healthy, solid condition, and is able to support the overall stability of the national financial system.

The results of this study also show that digital transformation has become one of the main determinants of banking health in the modern era. Banking digitalization is no longer just a trend, but has become an unavoidable necessity. The presence of digital technology offers various great opportunities, such as operational efficiency, accelerated transaction processes, easy access to banking services anytime and anywhere, and expanded financial inclusion for people who were previously difficult to reach by conventional bank services. However, these opportunities come with new risks that are no less significant. Rabbani et al. (2021) confirm that banking digitalization presents a serious challenge to financial stability, especially if banks do not strengthen their risk management systems. These real threats include cyber risks, customer data leaks, and the vulnerability of banking information systems, which if not anticipated, can weaken the bank's overall health.

In addition to security challenges, the increasingly intensive relationship between banking and fintech also has a dual implication. On one hand, the presence of fintech has been shown to increase public access to financial services more quickly, flexibly, and easily. However, on the other hand, this phenomenon also creates competitive pressure on established traditional banks. According to Kohardinata et al. (2020), the presence of peer-to-peer lending fintech, for example, can affect the profit stability of conventional banks. If the pressure from fintech is not managed with the right strategy, bank profitability can decrease and the risk of default can increase. This condition indicates that digital innovation must continue to be developed, but at the same time must be balanced with strict supervision from authorities and mature risk mitigation strategies from the bank itself.

The results of this study also confirm that signaling theory remains very relevant in explaining how banks communicate their health condition to the public and investors. In banking practice, the main signal that investors pay attention to is generally financial indicators, especially the Capital Adequacy Ratio (CAR).

According to Irawati (2019), a bank with a high CAR will tend to be perceived as a healthier and more stable institution. This positive perception can ultimately increase the level of investor confidence and strengthen the bank's image in the market. An increase in CAR not only provides an overview that the bank is able to manage capital efficiently but also becomes a strong signal that the bank is relatively resilient to various credit and market risks that can occur at any time. Thus, signaling theory becomes a very important communication instrument because it can reduce information asymmetry between internal bank parties and external parties such as investors, regulators, and the general public.

Furthermore, Ben Hassen et al. (2020) show that the signals sent by banks to the market are not limited to financial indicators such as CAR, but also include aspects of compliance and innovation undertaken. During a crisis period, especially during the COVID-19 pandemic, banks that emphasized compliance with sharia principles and actively adopted digital innovation were proven to be more capable of maintaining their stock performance. This finding provides strong evidence that in a digital era full of uncertainty, investors do not only assess the bank's financial strength, but also pay attention to how the bank responds to changes in the external environment. The factors of digital innovation and compliance with regulations are proven to be signals that are highly considered in investment decision-making. By utilizing digital technology and online platforms, young investors can now access various capital market instruments more practically and quickly, without having to attend face-to-face meetings or go through complicated administrative processes. Mobile applications and special sharia capital market websites provide user-friendly features, allowing users to purchase shares, sukuk, or sharia mutual funds directly from their devices anytime and anywhere (Tazkiyyaturrohmah & Sriani, 2020).

Another finding from the analyzed literature shows that good corporate governance (GCG) plays a very important role in maintaining bank health. According to Kohardinata et al. (2020), the consistent implementation of GCG can strengthen the stability of bank profits even though the bank faces various pressures from the digitalization process and industrial competition. In other words, good governance is not only a formal requirement or administrative compliance but truly becomes the main pillar of bank health amid the complexity of new challenges arising from globalization, digitalization, and changes in consumer behavior.

In addition to the factors of regulation, digitalization, signaling theory, and governance, bank health is also greatly influenced by the macroeconomic conditions that are developing at the national and international levels (Rehman et al., 2021). Global uncertainty, fluctuations in international interest rates, changes in currency exchange rates, and geopolitical turmoil are external factors that cannot be avoided by the banking industry. Banks that have a strong capital structure, a comprehensive risk management system, and an adaptive business strategy will be much more capable of facing these external pressures. Conversely, banks that are weak in capital management, have low asset quality, and do not have a good risk mitigation system will be much more vulnerable to a decline in health and even potentially face a liquidity crisis.

Overall, the results of this study confirm that the health of Indonesian banking is the result of a complex interaction between strict regulation, a directed digitalization strategy, the application of signaling theory in financial communication, and consistent good governance. Banks that are able to integrate these four aspects comprehensively will be more ready to face various future challenges, both from the increasingly tight industry competition and the increasingly uncertain dynamics of the global economy. Conversely, banks that fail to manage one of these aspects are at great risk of losing public trust, experiencing a decline in firm value, and ultimately weakening the stability of the national financial system which is the foundation for the Indonesian economy as a whole.

5. Discussion

The discussion of the results of this study shows that the health condition of banks in Indonesia cannot be separated from three important aspects, namely the regulations implemented by the Financial Services Authority (OJK) which are based on a risk approach, the increasingly complex challenges of digitalization, and financial communication strategies through the application of signaling theory. The implementation of the RGEC framework (Risk Profile, Good Corporate Governance, Earnings, and Capital) is proven to still be relevant and effective as the main instrument for measuring national banking health (Lisa & Hermanto, 2020)

This is in line with the findings of Hidayat et al. (2021), which confirm that the RGEC method is able to provide a comprehensive picture of bank health, including digital banks which are now playing an increasingly important role in the Indonesian banking industry. However, new challenges have emerged, namely the complexity of risks due to the acceleration of digitalization. This condition demands that OJK regulations be updated periodically so that they remain in line with dynamic technological developments (Bakhri et al., 2021). Without such updates, regulations can lose their relevance in the face of new threats in the financial sector.

The biggest challenge currently faced by Indonesian banking is how to maintain a balance between the efficiency offered by digitalization and the aspect of system security (Bella & Himmawan, 2021). The increase in cyber risks, data leaks, and attacks on financial technology infrastructure is becoming more real as dependence on digital systems increases. Therefore, OJK needs to strengthen digital security standards through stricter regulations, while also encouraging banks to allocate greater investment in the development of secure and resilient technology infrastructure. This view is in line with Rabbani et al. (2021), who state that failure to mitigate digital risks can have a serious impact on the overall stability of the financial system.

The discussion also highlights the important role of signaling theory in building investor confidence. So far, financial indicators such as the Capital Adequacy Ratio (CAR) have indeed been the main signal in assessing bank health. However, recent research reveals that positive signals are not limited to financial aspects alone. Non-financial factors, such as digital innovation and compliance with sharia principles, are also getting more attention from investors. The research by Ben Hassen et al. (2020) confirms that these innovations and compliance are proven to be signals that are perceived positively by the market, especially in maintaining the performance of bank stocks during a period of uncertainty. Thus, signaling theory in Indonesia is expanding, not only limited to traditional financial indicators but also including aspects of reputation, compliance, and adaptability to environmental changes.

Although digitalization can expand public access to financial services, in reality, there is still a significant gap, especially in remote areas with low digital literacy. Therefore, OJK and the banking industry need to develop an inclusive strategy that is not only based on digital technology but also considers the factor of public financial literacy. If this aspect is ignored, the risk of financial exclusion will increase, which in turn can weaken bank health in the long term.

Thus, it can be stated that bank health in Indonesia is not only determined by internal financial indicators but also by external factors such as digitalization dynamics, regulatory quality, and public perception. Therefore, the future strategy for Indonesian banking must emphasize the integration between strengthening regulations, digital security, the implementation of Good Corporate Governance (GCG), and credible signal communication to investors as the main foundation for maintaining the stability of the national financial system.

6. Conclusion

This study concludes that bank health is a key factor in maintaining the stability of Indonesia's financial system. OJK regulations through the RGEC approach are proven to be effective in assessing the health condition of banks, both conventional and digital. However, new challenges from banking digitalization require regulatory updates and strengthening of the cyber security system to maintain stability.

In addition, signaling theory plays an important role in reducing information asymmetry between banks and investors. Indicators such as CAR become positive signals that increase market confidence, while digital innovation and sharia compliance are also interpreted as additional signals that strengthen the bank's reputation. Thus, bank health is not only determined by financial indicators but also by how the bank adapts to changes in the external environment and conveys information to the public.

Future challenges include strengthening financial inclusion, increasing public literacy, and mitigating digital risks. Therefore, the best strategy for Indonesian banking is to integrate strict regulation, good governance, strong digital security, and transparent signal communication. Only with a comprehensive approach can Indonesian banking maintain its financial health while also contributing to sustainable national economic development.

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