
Digitalization of Gearing Ratio Program to Mitigate Financial Risk of Indonesian Credit Guarantee Industry

Hari Tohar Muljono¹, Tri Ratnawati², M. Sihab Ridwan³

Faculty of Economics and Business, Universitas 17 Agustus 1945 Surabaya,
Indonesia

E-mail: haritohar@gmail.com, triratnawati@untag-sby.ac.id, shihab@untag-sby.ac.id

Received: August, 2024; Accepted: August, 2024; Published: November, 2024

Permalink/DOI:

Abstract

Digitalization in the credit guarantee industry in Indonesia is a strategic step to strengthen MSMEs' access to financing. By utilizing digital technology, credit guarantee companies can overcome the limitations of MSMEs in obtaining capital through the provision of guarantees to banks. This research aims to understand how the implementation of digitalization in the gearing ratio program can improve credit guarantee efficiency and optimize financial risk mitigation at PT Jamkrida Jatim. Using a qualitative approach with a phenomenological method, data was collected through in-depth interviews, focus group discussions (FGDs), and document analysis. The results show that digitizing the gearing ratio program strengthens accountability and transparency, and enables real-time risk monitoring. With a digitized decision evaluation process ("Go," "No Go," and "Cut Loss"), PT Jamkrida Jatim can mitigate financial risks more precisely and efficiently. Digitalization also enables better internal collaboration and rapid response to market conditions. Overall, this research underscores the important role of digitalization in creating an inclusive, sustainable MSME financing ecosystem and supporting national economic growth through better risk mitigation.

Keywords: *Digitalization, Credit Guarantee Industry, MSME, Gearing Ratio, Risk Mitigation*

INTRODUCTION

Digitalization in Indonesia's credit guarantee industry is an important step in strengthening MSMEs' access to the financial sector. The guarantee industry serves to bridge the limitations of MSMEs in accessing capital, specifically by providing the collateral required by banks to reduce credit risk. With technological advances, guarantee companies can now speed up the guarantee process, make data analysis more structured, and increase efficiency in risk monitoring. This digitalization step is expected to overcome the problem of information asymmetry, which is often an obstacle between MSMEs and financial institutions.

One of the important programs supported by the government is the gearing ratio program, which focuses on improving MSMEs' access to financing through the support of guaranteeing a portion of their total loans. With this scheme, guarantee agencies provide credit guarantees to MSMEs, so that banks are more comfortable lending to the sector. By implementing digitalization in the gearing ratio program, guarantee companies are able to monitor the performance of guaranteed loans in real-time, improving the efficiency of the guarantee process and reducing the risk of errors.

Digitalization in the gearing ratio program also strengthens the accountability and transparency aspects in the credit guarantee industry. The digital system allows for more systematic and detailed reporting, which is very useful in maintaining the credibility of the guarantee institution. In addition, digitalization facilitates supervision by the Financial Services Authority (OJK), as more accurate and transparent data can be easily accessed by related parties. This transparency is an added value for guarantee institutions in maintaining the trust of stakeholders, including banks and MSME customers.

The implementation of digital technology in the credit guarantee industry brings a new approach to financial risk mitigation. Technology allows guarantee institutions to collect and analyze risk data more quickly and accurately. This is very important considering the risks faced by the credit guarantee industry, especially credit and operational risks, which require special attention. Through real-time data, guarantee companies can mitigate risks earlier and avoid potential unwanted losses.

This more structured and data-driven approach to risk mitigation is aligned with internationally recognized risk management frameworks, such as COSO and ISO 31000. Both frameworks encourage the implementation of thorough internal audit and risk control. By adopting these standards, guarantee institutions are expected to be able to improve risk management and respond to risks more proactively. This is crucial in facing increasingly fierce competition in the digital era.

The use of digital technology in risk mitigation also improves communication and collaboration between departments within the company. Through an integrated information system, all departments can share risk information and strengthen supervision together. Digital technology, with real-time risk monitoring and reporting features, provides a comprehensive overview for company management to take timely action. Thus, digitalization not only improves operational efficiency but also supports the company's internal synergy.

In facing financial risks, guarantee companies must be able to measure risks with accurate indicators. Digitalization helps companies identify credit risks quickly and provides a complete picture of the financial condition of the guaranteed MSMEs. With clear risk indicators, companies can adjust financing strategies according to the risk profile of the targeted MSMEs. This makes it easier for companies to allocate resources more efficiently and optimize the risk mitigation process.

The challenge in managing risk also includes digital risks that arise from the use of technology. These risks include cyber threats, malware attacks, and risks to information systems that can threaten the sustainability of company operations. Therefore, in addition to implementing COSO and ISO 31000 for business risks, it is important for guarantee companies to implement a comprehensive digital risk mitigation strategy. This digital risk management ensures that the company remains safe from operational disruptions that could affect credit guarantee services.

With digitalization, credit guarantee companies in Indonesia are also expected to increase their competitiveness in facing a dynamic business environment. Adapting to new technologies allows companies to navigate risks in the digital era, including market risks and intensified competition. This step supports the company's long-term strategy in maintaining sustainability and improving financial performance, which can be seen from the growth of financial indicators such as Return on Equity (ROE) at PT Jamkrida Jatim.

Overall, digitization in the credit guarantee sector opens up great opportunities to create a more inclusive and sustainable MSME financing ecosystem. By improving efficiency, transparency, and better risk mitigation, the credit guarantee industry can make a significant contribution in driving Indonesia's economic growth. In addition, this digitalization makes the credit guarantee industry more resilient and adaptive to change, and provides more reliable financial solutions for MSMEs in Indonesia.

METHOD

This research method uses a qualitative approach with a focus on phenomenology to explore the experiences and in-depth understanding of key informants in the credit guarantee industry regarding the implementation of digitalization and the gearing ratio program for financial risk mitigation. The phenomenological approach helps researchers directly understand the subjective experiences of informants, especially regarding how digitalization affects risk mitigation and increases efficiency in the gearing ratio program. This approach also allows exploration without manipulation of conditions, so that the credit guarantee process that occurs in a natural context can be studied in depth.

Data collection was conducted through in-depth interviews, Focus Group Discussion (FGD), and document analysis to obtain comprehensive information from various perspectives. The source triangulation technique was used in testing the validity of the data, ensuring that each information was obtained from various parties directly involved, such as management and supervisors at PT Jamkrida Jatim, so that the data obtained could accurately describe the reality in the field. The data collection process was conducted interactively, and the data that had been collected was filtered and sorted to focus on the core issues of the research, namely the digitalization of gearing ratio in risk mitigation.

Data analysis was conducted with several stages, including data reduction, data presentation, and conclusion drawing, to generate an in-depth understanding of the role of digitalization in improving the effectiveness of the gearing ratio program. In addition, analysis was conducted to identify internal and external

factors that influence the implementation of digitalization strategies and to determine priorities for risk mitigation. With this approach, the research is expected to provide a comprehensive overview of effective financial risk mitigation efforts in the credit guarantee industry in the digital era.

RESULTS AND DISCUSSION

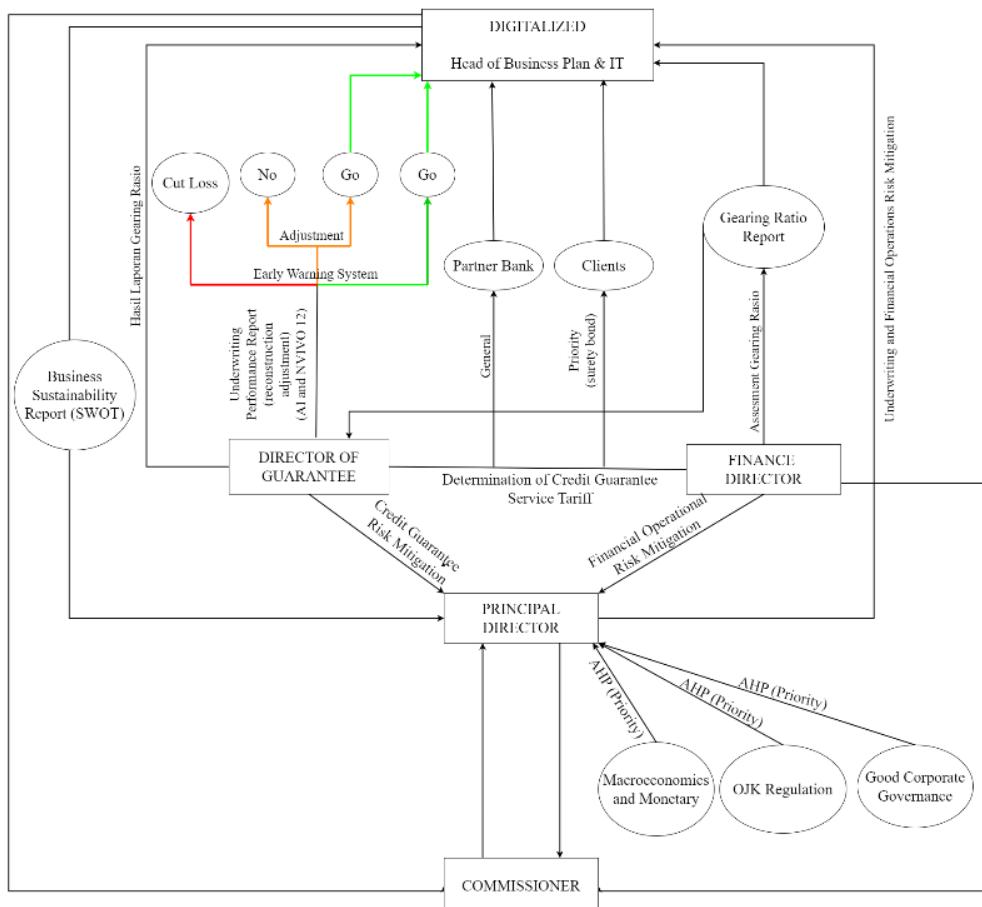


Figure 1. Program Gearing Ratio (PGR) Digitization Design

Figure 1 shows the decision-making flow at PT Jamkrida Jatim structured in several stages related to digitalization, gearing ratio reports, and financial risk mitigation measures in the credit guarantee industry. This process shows how the company integrates digital technology to support more precise and accurate decisions, especially in the gearing ratio program, which aims to strengthen MSMEs' access to financing through credit guarantee support. Digitalization is at the core of information management, which supports efficient risk evaluation and decision-making.

At the top of the diagram, it can be seen that "Digitalization" is under the control of the Head of Business Plan & IT, who is responsible for setting up a digital system for managing the gearing ratio report. The gearing ratio report is very important in the credit guarantee industry as it provides data that allows companies

and bank partners to assess the financial capability of customers, especially MSMEs. With digitalization, the gearing ratio reporting process becomes faster and more accurate, allowing the company to better monitor the financial condition of clients, which in turn helps in determining risk mitigation measures.

The gearing ratio report generated from this digitization process is used by partner banks and customers to get a clear picture of the risks and potential benefits of the credit guarantee program. Digitization allows this process to be done in real-time, so the company can quickly detect changes in the financial situation that require immediate action. Thus, this report becomes an important instrument in helping PT Jamkrida Jatim and partner banks to understand and manage financial risks more effectively.

The diagram also shows the evaluation process in the form of “Go,” “No Go,” and “Cut Loss” which is the final decision of the financial risk analysis. This process involves assessing gearing ratio reports and information from partner banks and customers. A “Go” decision means that the credit guarantee will continue, while “No Go” indicates a decision to postpone or temporarily stop the guarantee process until there is further certainty. Meanwhile, a “Cut Loss” decision is made when the risk is deemed too high, and the company chooses to stop the guarantee to minimize losses. Digitalization ensures that the data used in this evaluation process is accurate, making the decision more informed.

Under the decision-making structure of “Go,” “No Go,” and “Cut Loss,” it can be seen that the Director of Guarantee plays a role in overseeing the business continuity report that focuses on SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. This SWOT analysis helps in evaluating potential risks as well as opportunities that exist in credit underwriting. With digitalization, data obtained from SWOT can be processed faster, allowing the Guarantee Director to make more informed decisions and be responsive to market dynamics.

In addition to the Guarantee Director, the Finance Director is also involved in the decision-making process by considering the gearing ratio report and other financial aspects. This role is very important because the Finance Director is responsible for maintaining the company's financial stability, especially when facing credit risks from customers. Through digitization, financial information can be accessed more quickly, allowing the Finance Director to monitor and respond to potential financial risks more proactively.

Furthermore, the President Director is in the highest decision-making position responsible for the overall strategy of the company. By utilizing the data available from the gearing ratio report and SWOT analysis, the President Director can ensure that risk mitigation measures are in line with the company's vision. Decisions made at this level will have a major impact on the company's performance and sustainability in the long run. Digitalization helps the President Director gain quick access to relevant information, so that strategic decisions can be made on a solid data base.

The role of the Commissioners in this diagram is to ensure that all operational processes of the company run in accordance with external regulations such as OJK (Financial Services Authority) rules, macroeconomic conditions, and

Good Corporate Governance (GCG) standards. The Commissioner acts as a watchdog that ensures the company operates with controlled risks and in accordance with applicable regulations. Digitalization gives Commissioners direct access to reports and related information, allowing for more efficient and timely oversight.

In the context of financial risk mitigation, digitalization plays a very important role as it allows PT Jamkrida Jatim to respond to changes in market conditions and customers' financial situation in real-time. This digital-based gearing ratio program enables the company to detect early signs of potential financial risks so that it can take preventive steps before the risks grow bigger. Through the evaluation of "Go," "No Go," and "Cut Loss," the company can adjust its approach to reduce financial risks, such as reducing exposure to high-risk customers.

Overall, the figure above illustrates how PT Jamkrida Jatim integrates digitalization in the management of gearing ratio to support better financial risk mitigation. Digitalization not only improves efficiency in the evaluation and decision-making process, but also enables the company to conduct more accurate and timely risk mitigation. With this system in place, PT Jamkrida Jatim can operate in a more responsive, transparent, and stable manner in supporting financing for MSMEs and maintaining the company's sustainability in the credit guarantee industry.

CONCLUSION

Digitalization in the credit guarantee industry, especially at PT Jamkrida Jatim, has a significant impact on improving MSME access to finance and mitigating financial risks. Through the application of technology in the gearing ratio program, the company is able to overcome information asymmetry, which is a major obstacle for MSMEs in accessing financing. Digitalization also accelerates the guarantee process, strengthens accountability, and increases transparency, which is crucial in maintaining the credibility and trust of bank partners and MSME customers.

The implementation of digitization on gearing ratio reports allows companies and bank partners to monitor credit performance in real-time, so that risk decisions can be made with more accurate data. The "Go," "No Go," and "Cut Loss" decision-making process becomes more efficient with structured and up-to-date data, supporting appropriate and accurate risk mitigation measures. Digitalization also facilitates collaboration between departments within the company, enabling better risk communication and more thorough oversight.

In addition, the application of international standards such as COSO and ISO 31000 in risk management allows companies to be more proactive in dealing with operational risks and digital risks, which are increasingly relevant in this era of digital transformation. With the support of technology, PT Jamkrida Jatim can respond to market challenges and increasingly fierce competition, strengthen the company's financial resilience, and maintain business sustainability in the long term. Overall, digitalization brings positive changes that support the company to

operate more responsively, transparently, and stably in supporting MSME financing and contributing to Indonesia's economic growth.

REFERENCES

Alijoyo, A., & Fisabilillah, A. F. M. S. (2021). Risk management implementation in public sector organizations: A case study of indonesia. *Organizational Cultures*. <https://doi.org/10.18848/2327-8013/CGP/v22i01/1-23>

Almeida, R., Teixeira, J. M., Mira da Silva, M., & Faroleiro, P. (2019). A conceptual model for enterprise risk management. *Journal of Enterprise Information Management*. <https://doi.org/10.1108/JEIM-05-2018-0097>

Alvin, Arens, A., & Elder Beasley. (2021). Auditing . *The Art and Science of Assurance Engagements*.

Anindyajati, H., & Rachman, C. S. (2020). The Implementation of Risk Based Internal Audit During The Corona Virus Diseases Pandemic Conditions Case Studies Indonesia Deposit Insurance Coorporation. *E-Prosiding Akuntansi*.

Atanasova, C., Li, M., Mugerman, Y., & Rastan, M. (2019). Government guarantees and the risk-taking of financial institutions: evidence from a regulatory experiment. *Journal of Asset Management*. <https://doi.org/10.1057/s41260-019- 00128-2>

Baloglu, G., & Cakali, K. R. (2022). Missing aspects of the risk: speed and duration. *Pressacademia*. <https://doi.org/10.17261/pressacademia.2022.1541>

Barr-Pulliam, D., Brown-Liburd, H. L., & Munoko, I. (2022). The effects of personspecific, task, and environmental factors on digital transformation and innovation in auditing: A review of the literature. *Journal of International Financial Management and Accounting*. <https://doi.org/10.1111/jifm.12148>

Barroso Menezes, P. H., Martins, H. C., & Oliveira, R. R. (2018). The excellence Baldridge criteria in the effectiveness of higher education institutions management. *Brazilian Business Review*. <https://doi.org/10.15728/bbr.2018.15.1.4>

Bogdan dan Taylor. (1975). *Metodologi Penelitian Kualitatif*. Bandung: Remadja Karya Cipta.

Buettner, S., van Keulen, A.-M., Gaspersz, M. P., van Vugt, J. L., Roos, E., Coelen, R. J., Bruno, M. J., van Driel, L. M., Voermans, R. M., van Eijck, C. H., van Hooft, J. E., van Lienden, K. P., de Jonge, J., Polak, W. G., Poley, J.-W., Pek, C. J., Moelker, A., Willemssen, F. E., van Gulik, T. M., ... Groot Koerkamp, B. (2022). Performance of Initial Biliary Drainage in Patients with Unresectable Perihilar Cholangiocarcinoma. *HPB*. <https://doi.org/10.1016/j.hpb.2022.05.992>

Caraiman, A.-C., & Mates, D. (2020). Risk management in corporate governance. *Proceedings of the International Conference on Business Excellence*. <https://doi.org/10.2478/picbe-2020-0018>

Charette, R. N. (2020). Managing risk and responsibility during a crisis: The COVID19 pandemic has resurfaced questions about the government's role

when disaster strikes - [Spectral Lines]. IEEE Spectrum. <https://doi.org/10.1109/MSPEC.2020.9078399>

Chowdhury, S., Rodriguez-Espindola, O., Dey, P., & Budhwar, P. (2022). Blockchain technology adoption for managing risks in operations and supply chain management: evidence from the UK. *Annals of Operations Research*. <https://doi.org/10.1007/s10479-021-04487-1>

Christian, J. R., & Harahap, S. N. (2020). Implementation of risk management during the revenue cycle. In *Contemporary Issues in Finance, Accounting, and Consumers' Behavior: Lessons from Indonesia*.

Dinh, T. H., Pham, D. C., & Nguyen, T. T. (2021). Factors Affecting the Internal Audit Effectiveness of Steel Enterprises in Vietnam. *Journal of Asian Finance, Economics and Business*. <https://doi.org/10.13106/jafeb.2021.vol8.no1.271>

Engvang, J. A., & Jradi, M. (2021). Auditing and design evaluation of building automation and control systems based on eu.bac system audit – Danish case study. *Energy and Built Environment*. <https://doi.org/10.1016/j.enbenv.2020.06.002>

Faleh Obeidallah, K. (2017). The Effectiveness of Applying the Baldrige Quality Standards in Higher Education to Achieve Competitive Advantage: Case Study on Jordanian Private Universities. *International Journal of Business and Management*. <https://doi.org/10.5539/ijbm.v12n11p218>

Fayyadh, M. J. A., Azhar, Z., & Jalaludin, D. (2022). Impact of Internal Auditing Practices on the Internal Control System: Pre- & Post-Pandemic Comparative Study. *Journal of Hunan University Natural Sciences*. <https://doi.org/10.55463/issn.1674-2974.49.10.15>

Ferreira, J., Horta, P., & Geada, F. (2023). Internal Audit Process in eHealth. *International Healthcare Review (Online)*. <https://doi.org/10.56226/50>

Fry, L. W., Latham, J. R., Clinebell, S. K., & Krahne, K. (2017). Spiritual leadership as a model for performance excellence: a study of Baldrige award recipients. *Journal of Management, Spirituality and Religion*. <https://doi.org/10.1080/14766086.2016.1202130>

Gardi, B. (2021). The Effects of Computerized Accounting System on Auditing Process: A Case Study From Northern Iraq. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3838327>

Hardjomidjojo, H., Pranata, C., & Baigorria, G. (2022). Rapid assessment model on risk management based on ISO 31000:2018. *IOP Conference Series: Earth and Environmental Science*. <https://doi.org/10.1088/1755-1315/1063/1/012043>

Ibrahim, I., & Melhem, B. (2016). Impact of the Human Resources on the Risk Management and the Company Performance. *International Journal of Economics & Management Sciences*. <https://doi.org/10.4172/2162-6359.1000320>

ISO. (2009). Risk management - principles and guidelines on implementation. In International standard, ISO 31000.

Jeong, H. (2011). An investigation of user perceptions and behavioral intentions towards the e-library. *Library Collections, Acquisitions, & Technical Services*. <https://doi.org/10.1080/14649055.2011.10766298>

Kiilu, P., & Nzuki, D. (2016). Factors Affecting Adoption of Information Security Management Systems: A Theoretical Review. *International Journal of Science and Research (IJSR)*.

Kim, H. J., Mannino, M., & Nieschwietz, R. J. (2009). Information technology acceptance in the internal audit profession: Impact of technology features and complexity. *International Journal of Accounting Information Systems*. <https://doi.org/10.1016/j.accinf.2009.09.001>

Lagazio, C., Persico, L., & Querci, F. (2021). Public guarantees to SME lending: Do broader eligibility criteria pay off? *Journal of Banking and Finance*. <https://doi.org/10.1016/j.jbankfin.2021.106287>

Laitinen, I., Kinder, T., & Stenvall, J. (2018). Local public service productivity and performance Measurement. *International Journal of Knowledge-Based Development*. <https://doi.org/10.1504/IJKBD.2018.090501>

Lawrence, N. A., & Hammoud, M. S. (2017). Strategies to Implement the Baldridge Criteria for Performance Excellence. *International Journal of Management Excellence*. <https://doi.org/10.17722/ijme.v9i1.912>

Liu, Z., Demeestere, K., & Hulle, S. Van. (2021). Comparison and performance assessment of ozone-based AOPs in view of trace organic contaminants abatement in water and wastewater: A review. In *Journal of Environmental Chemical Engineering*. <https://doi.org/10.1016/j.jece.2021.105599>

Maliangkay, K. W. (2023). Tinjauan Hukum Lembaga Penjamin Kredit UMKM. *Lex Privatum*.

Mert, I. (2021). The effects of the qualitative parameters of internal auditing works on the preferences of investment funds' analysts. *Economic Alternatives*. <https://doi.org/10.37075/EA.2021.1.04>

Onay, A. (2021). The Role of Internal Audit from New Enterprise Risk Management Frameworks Perspective: Research in Turkey. *Istanbul Business Research*. <https://doi.org/10.26650/ibr.2020.49.0032>

Pemerintah Republik Indonesia. (2014). Undang-Undang Republik Indonesia Nomor 23 tahun 2014 tentang Pemerintahan Daerah. Kementerian Sekretariat Negara RI. <https://doi.org/10.1017/CBO9781107415324.004>

Prof. Dr. Tri Ratnawati, Ak., MS., CA., CPA Prof. Dr. Widi Hidayat, SE., M.Si., Ak., CA., C. (2022). internal Audit. In book. Universitas 17 Agustus 1945 Surabaya.

Qureshi, E. A., & Qureshi, E. A. (2021). The effect of Computerized Information Systems on Auditing and Internal control (Applied Study on Central Organization for Control and Accounting, Yemen). *RESEARCH REVIEW International Journal of Multidisciplinary*. <https://doi.org/10.31305/rrijm.2021.v06.i03.011>

Ratnawati, T., & Kusniawati, A. (2016). INTERNAL AUDIT ACTIVITY BASED MANAGEMENT UNTUK MENILAI EFESIENSI DAN EFEKTIFITAS PADA DEPARTEMEN PRODUKSI CV. HERBA BAGOES MALANG

KOTA. JEA17: Jurnal Ekonomi Akuntansi.

<https://doi.org/10.30996/jea17.v1i01.644>

Rikhardsson, P., & Dull, R. (2016). An exploratory study of the adoption, application and impacts of continuous auditing technologies in small businesses. *International Journal of Accounting Information Systems*. <https://doi.org/10.1016/j.accinf.2016.01.003>