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The effect of supervision quality and risk management on company value mediated by operational efficiency study on financial conglomerate companies in the banking sector in Indonesia

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Abstract

This study examines the effect of supervision quality and risk management implementation on company value, with operational efficiency as a mediating variable, in financial conglomerate banks in Indonesia during 2015–2023. Using a quantitative, causal-comparative design and path analysis, the study reveals that supervision quality significantly enhances both operational efficiency and company value, directly and indirectly. Operational efficiency also serves as a strong mediating factor in this relationship. Conversely, risk management implementation has a negative and insignificant effect on both efficiency and firm value. This suggests that overly rigid or misaligned risk management practices may hinder performance in conglomerate structures. The novelty of this research lies in its integrated analytical model combining governance and risk practices to assess firm value within a conglomerate framework, an underexplored area in the Indonesian context. Findings offer strategic insights for regulators and financial institutions in optimizing supervisory frameworks to enhance corporate performance and mitigate systemic risks.

Keywords: Company value, Operational efficiency, Risk management, Supervision quality.

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1. Introduction

Conglomeration is a term frequently encountered in the business world. It can refer to entities in both financial and non-financial sectors. According to the Financial Services Authority Regulation, financial conglomerates are financial services institutions that are part of one or more groups due to related ownership and/or control [1]. In a business conglomerate, one parent company (often referred to as a holding *company*) has controlling stakes in small companies that each run their businesses separately [2]. According to OJK data, at the end of 2023, financial conglomerates in Indonesia controlled financial assets of IDR 9,003 trillion out of a total of IDR 15,231 trillion in financial services sector assets, representing 59.1%. The assets of these financial conglomerates have continued to increase over the past nine years, starting from IDR 5,265 trillion in 2015. The control of these financial conglomerate assets indicates that the majority of financial assets are managed by several financial conglomerates, each consisting of multiple controlling parent companies.

When financial conglomeration occurs, it can have a systemic impact not only on the financial sector but also on the non-financial sector. This can happen because financial flows greatly affect currency stability, at least in the short term, which, if not properly monitored or regulated, can disrupt the financial system, potentially leading to a crisis. For example, at the beginning of the crisis, the subprime mortgage crisis of 2007-2008, the banking system worldwide was hit by a financial tsunami due to excessive expansion and concentration of risk. This incident should serve as a warning to regulators to further develop and strengthen the regulatory system with new and strict supervisory mechanisms [3]. The global crisis that occurred in 2008 has provided a valuable lesson for regulators. Financial conglomeration can have a systemic impact on both the financial and non-financial sectors. This can happen because financial flows significantly affect currency stability, at least in the short term, which, if not properly supervised or regulated, can disrupt the financial system systematically, potentially leading to a crisis. Financial conglomeration in Indonesia is a unique form because Indonesia has three types of financial conglomerates: vertical, horizontal, and mixed types [4]. Many countries implement vertical financial conglomeration because supervision is easier to perform than with other types. Several research results indicate that vertical financial conglomeration is superior to horizontal and mixed financial conglomerates. This may be because vertical financial conglomerates typically have similar activities and clear direct relationships between the parent company and subsidiaries, which makes supervision easier.

In Indonesia, the Financial Services Authority (OJK), as the supervisory authority for the financial industry, carries out its supervisory duties by issuing provisions in the financial sector, implementing daily supervision (*on-desk monitoring*), as well as field inspections (*on-site audits*). Internal supervision is conducted by individuals or units within the company's organizational environment. This form of supervision can be carried out through direct superior supervision or inherent supervision (*built-in control*), or through routine supervision by the Board of Commissioners, Board of Directors, Committees, Internal Audit Unit, Risk Management Unit, Compliance Unit, and/or other relevant units, depending on the size and complexity of each company.

Several previous studies related to supervision of financial conglomerates, such as Mili et al. [5] conducted research to examine the resilience of banking in Europe, stating that diversification and bank independence can increase the risk of bank failure if the corporate governance mechanism is not strong. To reduce the risk of bank failure, diversification must be closely monitored by management to prevent excessive risk-taking by shareholders. Stephanou [6] in his research, it was stated that the increasing interconnectedness of the financial system in financial conglomerates drives the need for closer coordination of supervision. The presence of financial conglomerates further strengthens the financial system, mainly influenced by the following factors: 1) strict firewalls, which force the financial sector entities of the conglomerates to be managed independently; 2) high profitability in most financial sectors (especially for banks), eliminating the need for controllers to identify and leverage potential synergies among their group entities; and 3) the presence of a large number of foreign players in all financial sectors, which are also subject to consolidated supervision by regulatory authorities from their home countries.

Companies, especially in the financial industry, because it is one of the industries that has operational complexity and high levels of competition, causing the financial industry to be exposed to high risks and must operate carefully and efficiently. The risks that must be considered include all risks that can directly or indirectly affect the continuity of the LJK business, both from subsidiaries and related companies (*sister company*), or other entities that are part of a financial conglomerate. In order to measure risk more comprehensively, financial conglomerates must implement integrated risk management. Through the implementation of integrated risk management, financial conglomerates will benefit from, among others, better risk management, determination, *appetite* and *risk tolerance,* which is in accordance with the complexity and characteristics of financial conglomerate businesses, so that in the end it can produce synergies and increase business capacity and capital.

The implementation of risk management can reduce the total risk of failure for an organization [7] because management is considered to have a better system for managing risks, companies with a larger scope, such as financial conglomerates, have greater responsibilities to stakeholders and are closely related to economic conditions in a country [8]. Therefore, companies can be affected by risks caused by both internal and external factors. However, large companies generally have better resources to anticipate any risks they may face [8].

This research is motivated by the complexity of the financial conglomerate structure in Indonesia, which has the potential to increase risk exposure and create new challenges in efforts to maintain the stability of the financial sector. The main problem raised is the suboptimal understanding of how the quality of supervision and risk management affect company value, especially in the financial conglomerate sector, and how operational efficiency can act as a mediating variable in this relationship. This study aims to empirically test and analyze the influence of each of these factors on company value and operational efficiency, and to assess the role of efficiency as a mediator in this causal relationship. The novelty of this study lies in the integrative approach that combines conglomerate supervision and risk management in one analytical framework mediated by operational efficiency. This contributes to the financial management literature by focusing on the complex structure of financial conglomerates, which has not been widely studied in the Indonesian context. This study also provides practical contributions for regulators, financial services industry players, and shareholders in formulating more adaptive and systematic supervisory strategies and governance policies to increase company value and prevent potential systemic risks in the financial sector.

2. Method

In this study, quantitative research will be used. Quantitative data will be analyzed using statistical methods. This study is causal because it aims to test the relationship between one variable and another [9]. The relationships tested in this study are the relationship between Supervisory Quality and Company Value, Implementation of Risk Management and Company Value, Supervisory Quality and Efficiency, Implementation of Risk Management and Efficiency, and Company Value. This study also tests the role of Efficiency as a mediating variable between Supervisory Quality and Company Value, Implementation of Risk Management, and Company Value.

The population of the study comprises the banking sector with financial conglomerates in Indonesia. The research period spans from 2015 to 2023. This period was selected because it follows the issuance of provisions and regulations specifically regulating financial conglomerates within the banking industry in Indonesia, which occurred in 2014. The impact of these provisions became evident starting in 2015.

A sample is a subset of a population consisting of selected members. By studying the sample, researchers should be able to draw conclusions that can be generalized to the population of interest [9].

In this writing, the researcher uses secondary data collected from banking website data at OJK, which includes banking data and other financial services sectors. The data were analyzed using descriptive statistical analysis and inferential statistical analysis, including path analysis (*path analysis*) and multiple linear regression. Path analysis is conducted to test the influence of the independent variables on the dependent variable, considering both direct and indirect effects.

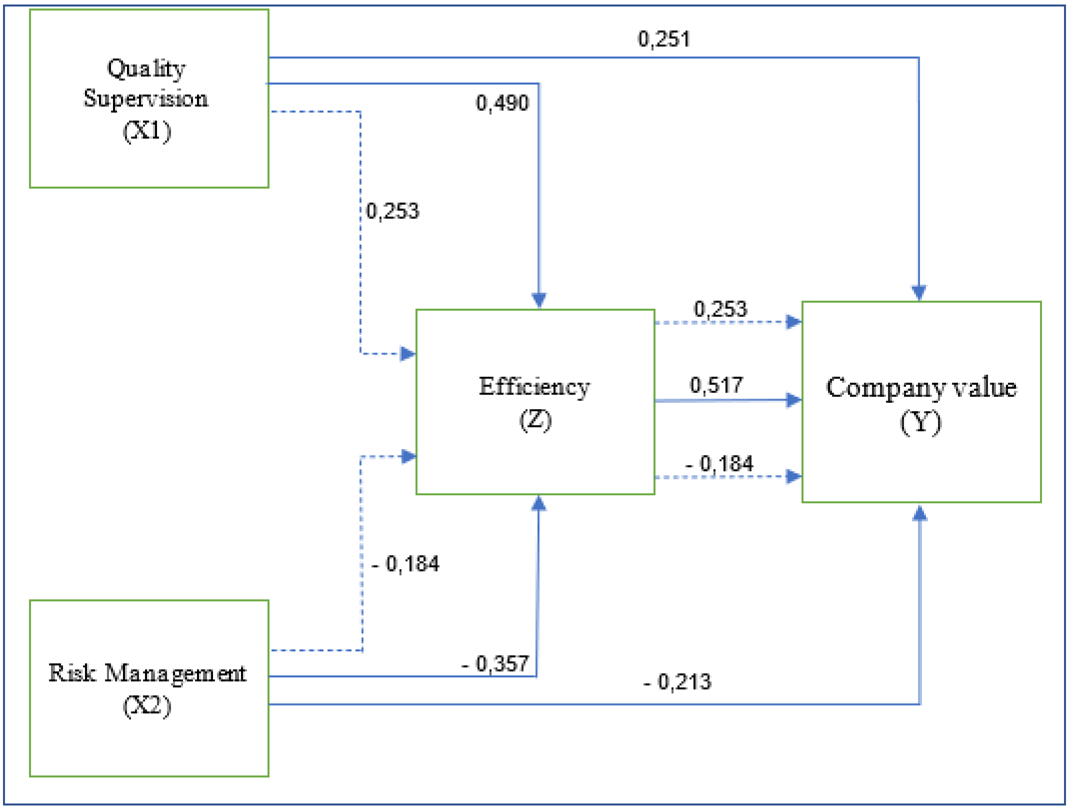

Figure 1.
Structural Model Results.

3. Result and Discussion

Based on the research results as stated in Figure 1 above, the relationship between the independent variables and the dependent variables can be described. From the table and figure, it can be seen that (1) the supervision quality variable has a positive and significant effect on company value, (2) the risk management variable has a negative but insignificant effect on company value, (3) the supervision quality variable has a positive and significant effect on operational efficiency, (4) the risk management variable has a negative but insignificant effect on operational efficiency, and (5) the operational efficiency variable has a positive and significant effect on company value.

3.1. Improving the Quality of Supervision mediated by Operational Efficiency will be able to Increase Company Value.

Research data on testing the influence of supervision quality on company value mediated by operational efficiency shows that the coefficient value of supervision quality has a direct positive relationship with company value, which is 0.251, and the influence is significant because the P-value is 0.010 < 5%. While the coefficient value of supervision quality on company value through the operational efficiency variable is 0.253, and the influence is also significant because the P-value is 0.000 < 5%. From this research data, it can be seen that the coefficient value indirectly or through the mediation variable is 0.253, which is greater than the direct coefficient value of 0.251. Based on this, it can be understood that when the supervision quality variable increases by 1 unit, it will directly increase the company value by 0.251 units, while through the operational efficiency mediation variable, the company value increases by 0.253 units.

The results of this study support the hypothesis that increasing the quality of supervision, mediated by operational efficiency, can enhance the value of the company. The better the quality of supervision carried out by the company, the more the company's value will increase, mediated by operational efficiency.

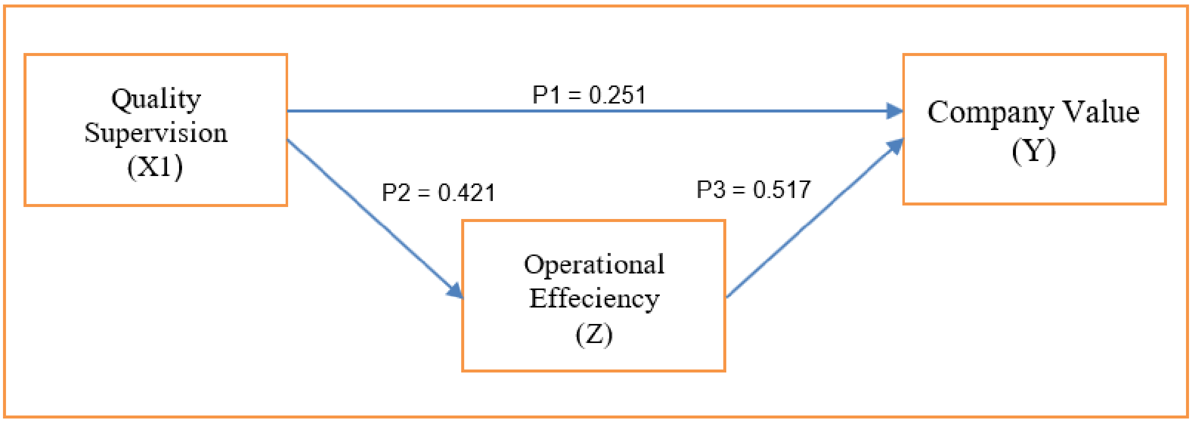

Figure 2.
Relationship between Supervision Quality and Company Value.

In accordance with Figure 2, the relationship between supervision quality and operational efficiency (P2) is 0.490 and is statistically significant. The relationship between efficiency and operational efficiency (P2) is also 0.490 and significant. Operational efficiency's relationship with the company value (P3) is 0.517 and significant. The coefficient value of the relationship between supervision quality and company value through efficiency is the product of P2 and P3, which is 0.253 and significant, as indicated by a p-value of 0.000, less than 5%. Since the coefficient value of the indirect relationship between supervision quality and the company's value (P2 x P3) of 0.253 exceeds the direct relationship coefficient (P1) of 0.251, the efficiency variable serves as a mediating variable.

3.2. Improving the Quality of Risk Management Implementation Mediated by Operational Efficiency will be able to increase Company Value

Research data on testing the effect of risk management implementation on company value mediated by operational efficiency shows that the coefficient value of risk management implementation has a direct inverse (negative) relationship to company value, which is -0.213, but the effect is not significant because the P-value is 0.194 > 5%. While the coefficient value of risk management implementation indirectly or through the operational efficiency variable on company value is -0.184, the effect is not significant because the P-value is 0.099 > 5%. From this research data, it can be seen that the coefficient value indirectly or through the mediation variable of -0.184 is greater than the coefficient value directly of -0.213. Based on this, it can be understood that when the risk management implementation variable increases by 1 unit, it will directly decrease the company value by 0.213 units, while through the operational efficiency mediation variable, the company value will decrease by 0.184 units.

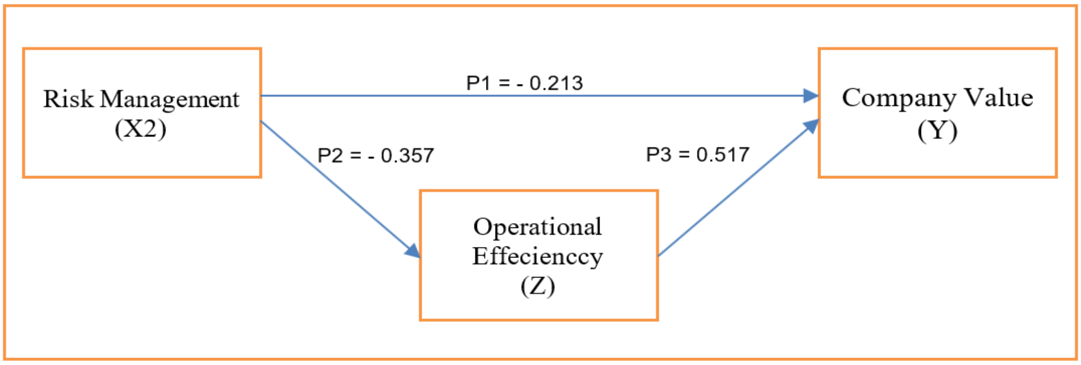

Figure 3.
Relationship between Risk Management Implementation and Company Value.

The results of this study reject the hypothesis that increasing the implementation of risk management mediated by efficiency will increase firm value. According to Figure 3, the relationship between the implementation of risk management and operational efficiency (P2) is -0.357 and not statistically significant. The relationship between efficiency and company value (P3) is 0.517 and is statistically significant. Therefore, the coefficient value of the relationship between the implementation of risk management and company value through operational efficiency is the product of P2 and P3, which is -0.184. This relationship is not statistically significant because the P-value is 0.099, exceeding the 5% significance level. Since the relationship is not significant, the operational efficiency variable is not considered a mediating variable.

3.3. Increasing the Quality of Supervision will be able to Increase Company Value (H-1)

The results of this study indicate that during the period 2015-2023, the quality of supervision carried out by financial conglomerate banks is considered very good. On average, all banks have fulfilled the minimum obligations required by regulations for the fulfillment of bank supervisory organs and have been able to meet the requirements to be assessed that supervision has been running well and effectively, including the maximum number of members of the board of commissioners being the same as the members of the board of directors, the composition of independent commissioners must be ≥ 50% of the board of commissioners, the board of commissioners must form at least four committees, each committee must be chaired by an independent commissioner, the majority of members of the board of commissioners do not have an affiliated relationship with fellow commissioners, the number of board of commissioner meetings and the attendance of each member of the board of commissioners in meetings, the knowledge and competence of the members of the board of commissioners, the existence of an integrated risk management work unit, an integrated compliance work unit, and an integrated internal audit work unit, and reports produced by integrated work units, committees, and the board of commissioners. This indicates that financial conglomerate banks in Indonesia have implemented high-quality supervision, which contributes to their strong corporate value.

Along the way, the fulfillment of the requirements for good quality supervision can fluctuate, depending on the decision of the shareholders at the General Meeting of Shareholders (GMS). In the GMS decision, it is often found that the existence and composition of independent commissioners cannot meet the requirements of the regulator; as a result, the quality of supervision that will be carried out cannot be assessed as running effectively. It takes several months to get an assessment and recognition from the regulator regarding the fulfillment of the requirements in question.

If the results of this study are examined further, it is found that three banks consistently meet the requirements for the fulfillment of organs and the implementation of bank supervision with a very good category every year, such as Bank Mandiri, Bank BNI, and Bank BCA. Of the three banks, the one that is considered to have very good supervision quality and the highest company value is Bank BCA. The three banks have been proven to carry out good and effective supervision, so that they can minimize information asymmetry, avoid fraudulent acts (*fraud*) which can be detrimental to the bank, execute the bank's strategic plan in a targeted manner, carry out synergy between member companies of the financial conglomerate in a more disciplined manner with more controlled costs, all of which will create an increase in the company's value, as reflected in the company's value that it owns.

During 2015-2023, two banks, Bank Victoria and Bank KB Bukopin, were considered to have supervision quality that was still not good, although the company's overall value remained relatively stable. Bank Victoria International (2018-2020) and Bank KB Bukopin (2019-2020) experienced difficulties in maintaining good supervision quality, which affected their company values. Several factors contributed to the poor supervision quality of Bank Victoria International and Bank KB Bukopin:

1. The composition of the number of independent commissioners is not yet ideal in accordance with existing regulations.
2. The main commissioner is not independent.
3. Affiliations or family relations among fellow members of the board of commissioners are still relatively high.
4. The presence of members of the board of commissioners at important bank supervision meetings still needs improvement.
5. The proportion of members of the Board of Commissioners who possess special knowledge and expertise related to the company's business still needs to be increased.
6. The existence of the audit committee in implementing supervision still needs to be improved.

According to Bank KB Bukopin's disclosure in its annual report, it was reported that the bank was experiencing problems in the credit sector due to Covid-19 since 2020, so it had to bear high operational costs, including the formation of credit reserves, while its income decreased drastically, which resulted in the company's performance being disrupted and its company value being low. The above factors really need to be fixed immediately so that the supervision carried out by the board of commissioners and all its apparatus can run well and with good and maintained quality.

Based on the explanation of the research results above, it can be concluded that increasing the quality of supervision can influence and increase the value of the company. The better the quality of supervision carried out by the company, the more it will directly increase the company's value. Conversely, when the quality of supervision decreases or worsens, it will directly decrease the company's value.

The results of this study further strengthen the theory of supervision, which is primarily based on performance, that supervision is a tool to improve organizational performance and achieve strategic goals [10]. The theory of supervision put forward by Iswandir [11] argues that management supervision is a systematic effort to set implementation standards with planning objectives, design information systems, provide feedback, compare actual activities with previously set standards, determine and measure deviations, and take corrective actions as needed to ensure that all company resources are used effectively and efficiently in achieving company goals.

The results of this study strengthen several previous research results presented by Mili et al. [5], Hidayat [12], Volkov and Smith [13], Ibrahim and Ragimun [14], Erdorf et al. [15], Peleckienė et al. [16] and Albulescu [17], stating that supervision has a significant effect on company value. Good supervision carried out by the board of commissioners and all existing supervisory devices in the company, if executed effectively, will provide positive contributions and support to the company's value.

Based on the above, the findings of this study indicate that improving the quality of supervision can influence and significantly increase the company's value. This means that when the quality of supervision carried out by the company improves, it will directly increase the company's value. Conversely, when the quality of supervision declines or worsens, it will directly decrease the company's value.

3.4. Increasing the Quality of Risk Management Implementation will be able to Increase Company Value (H-2).

Based on the results of this study during the period 2015-2023, data was obtained indicating that the composite risk profile of financial conglomerate banks was in the adequate category, and the average company value of all financial conglomerate banks was also in the good category. Among these financial conglomerate banks, there is a bank whose composite risk profile consistently falls into the very adequate category, namely Bank OCBC NISP, but the average company value is classified as less good. Most, or 57%, of financial conglomerate banks have an adequate composite risk profile, but their average company value is less good. Conversely, there is a bank whose composite risk profile is less adequate, namely Bank Mayapada, but the average company value is very good. From this study, it can be seen that banks with a very adequate or adequate composite risk profile in implementing risk management principles tend to have a company value classified as less good. The findings of this study indicate that the implementation of risk management has a negative effect on company value. This means that when the implementation of company risk management increases, it will directly decrease the company's value. Conversely, when the implementation of risk management decreases, it will directly increase the company value.

If examined further, banks that operate financial conglomerates individually have been able to implement effective risk management principles. Banks have established effective risk management systems to identify, monitor, measure, and control the risks they face. According to their size and complexity, banks have set risk *capacity*, *risk appetite*, and *risk tolerances* that enable bank operations to function properly. The results of implementing this risk management may not necessarily be followed by subsidiaries that are members of financial conglomerates, because the parameters determined by the parent company are not necessarily aligned or in harmony with the scope, nature, and conditions of the subsidiary. Some obstacles encountered by subsidiaries in implementing risk management include:

1. High implementation costs: Implementing risk management requires significant expenses, such as system development, training, and consulting costs. These expenses can reduce the subsidiary's profits, thereby negatively affecting the company's value.
2. Limited resources: The implementation of risk management requires sufficient resources, such as an adequate number of competent personnel, technology, and infrastructure. Limited resources can hinder the implementation of risk management, thereby negatively impacting the company's value.
3. Risk complexity: Financial conglomerates face complex and diverse risks, including credit risk, market risk, and operational risk. Ineffective risk management implementation can fail to identify and manage these risks, negatively impacting the company's value.
4. Technology dependence: Risk management implementation in financial conglomerates often relies on technology, such as risk management systems and data analysis tools. Technology dependence can leave companies vulnerable to cybersecurity risks and technological disruptions, negatively impacting the value of the company.
5. Lack of management capability: The implementation of risk management in financial conglomerates requires strong management capabilities, such as analytical skills, decision-making skills, and communication skills. A lack of management capabilities can make the implementation of risk management ineffective, thus negatively impacting the company's value.

The results of this study support the *signal theory*, which emphasizes that signals sent by the company can influence stakeholder perceptions of risk management and corporate value. The implementation of risk management that is excessively strict or insufficiently aligned with the criteria and conditions of the subsidiary in a financial conglomerate may lead to outcomes that are less favorable or contrary to the expectations of the parent company, thereby negatively impacting the overall value of the company.

The results of this study support and strengthen the research results put forward by Amelia [18], Ardianto and Rivandi [19], Emar and Ayem [20], Siregar and Safitri [21] and Ticoalu et al. [22] stated that the implementation of risk management has a negative effect on company value.

Based on the above, the findings of this study indicate that the implementation of risk management is unable to influence and increase the value of the company. This means that when the implementation of corporate risk management increases, it will directly decrease the value of the company. Conversely, when the implementation of management decreases or worsens, it will directly increase the value of the company.

3.5. Improving the Quality of Supervision will be able to Increase Operational Efficiency (H-3)

The results of this study indicate that during the period 2015-2023, overall, the quality of supervision carried out by banks on financial conglomerates was assessed as very good, and the level of operational efficiency was also very good. All financial conglomerate banks have been able to meet the requirements of bank organs so that supervision can be assessed as functioning well according to OJK regulations, including the maximum number of members of the board of commissioners being the same as the members of the board of directors, the composition of independent commissioners being ≥ 50% of the board of commissioners, the board of commissioners forming at least four committees, each chaired by an independent commissioner, the majority of members of the board of commissioners not having an affiliated relationship with fellow commissioners, the number of board of commissioner meetings and the attendance of each member in meetings over a year, the knowledge possessed by members of the board of commissioners, and reports produced by the committee and board of commissioners. The level of operational efficiency produced by the financial conglomerate bank is categorized as very good. This indicates that overall, the quality of supervision carried out by the bank within the financial conglomerate is very good and also achieves a very good level of operational efficiency.

If examined further, five banks have very good supervision quality values and very good operational efficiency levels, namely Bank Mandiri, Bank BNI, Bank BCA, Bank BTPN, and Bank Maybank. The bank that is recorded as the most efficient is Bank BCA. Banks that have very good supervision quality mean they have complete supervision organs and devices that can be operated effectively. Supervision can be carried out on all aspects of business and operations strictly and with discipline, so that it can minimize unnecessary expenses, avoid fraudulent acts (*fraud*) that can harm the bank, execute the bank's strategic plan in a targeted manner, carry out synergy between member companies of the financial conglomerate in a more disciplined manner with more controlled costs, all of which create efficiency in the financial conglomerate. From this study, it can be seen that banks with good quality supervision also produce a good level of efficiency.

On the other hand, two banks experienced poor supervision quality scores, and their company conditions were very inefficient, namely Bank Victoria International and Bank KB Bukopin. The level of operational efficiency recorded by Bank Victoria International in 2018-2020 and Bank KB Bukopin in 2019-2020 was very inefficient because operational costs far exceeded their operational income. If we look at it further, several factors caused Bank Victoria International and Bank KB Bukopin to have poor supervision quality, including:

1. The composition of the number of independent commissioners is not yet ideal in accordance with existing regulations.
2. The main commissioner is not independent.
3. Affiliations or family relations among fellow members of the board of commissioners are still relatively high.
4. The presence of members of the board of commissioners at important bank supervision meetings still needs improvement.
5. The proportion of members of the Board of Commissioners who possess special knowledge and expertise related to the company's business still needs to be increased.
6. The existence of the audit committee in implementing supervision still needs improvement.

According to Bank KB Bukopin's disclosure in its annual report, it was reported that the bank was experiencing problems in the credit sector due to Covid-19 since 2020, so it had to bear high operational costs, including the formation of credit reserves, while its income decreased drastically, which resulted in the company's performance being disrupted and its inefficiency becoming high. The above factors need to be fixed immediately so that the supervision carried out by the board of commissioners and all its apparatus can run well and with good and maintained quality.

The results of this study further strengthen the theory of supervision, which is primarily based on performance, that supervision is a tool to improve organizational performance and achieve strategic goals [10]. The theory of supervision [11] argues that management supervision is a systematic effort to set implementation standards with planning objectives, design information systems, feedback, compare actual activities with previously set standards, determine and measure deviations, and take corrective actions as needed to ensure that all company resources are used effectively and efficiently in achieving company goals. With the implementation of good quality supervision, it will result in good management of company resources and good management quality, so that good company operational efficiency will be created.

The results of this study support and strengthen the results of research presented by Hsu and Petchsakulwong [23], Zelenyuk and Zheka [24], Bozec and Dia [25], Krivogorsky [26], Rebeiz and Salameh [27] and Yamori et al. [28] who found that the quality of supervision affects the operational efficiency of the company.

Based on the above, the findings of this study indicate that improving the quality of supervision can significantly and positively influence and enhance efficiency. This means that when the quality of supervision conducted by the company increases, it will directly improve efficiency. Conversely, when the quality of supervision decreases or deteriorates, it will directly reduce efficiency.

Improving the Quality of Risk Management Implementation will be able to increase Operational Efficiency (H-4).

Based on the results of this study during the period 2015-2023, data was obtained indicating that the overall implementation of risk management in banks operating within financial conglomerates was adequate, and the level of operational efficiency was categorized as good. Among these, four banks, Bank Maybank, Bank Mayapada, Bank Victoria International, and Bank KB Bukopin had adequate risk management implementation but were classified as less efficient. Notably, Bank Victoria International and Bank KB Bukopin were classified as very inefficient, as their operational costs significantly exceeded their operational income. For four consecutive years, from 2018 to 2021, Bank Victoria

International's operational efficiency was classified as very inefficient. Similarly, Bank KB Bukopin experienced this classification from 2020 to 2023. Bank OCBC NISP was the only financial conglomerate bank whose risk management implementation was consistently classified as very adequate throughout the observation period, although its operational efficiency was only rated as good. In contrast, Bank Mandiri, Bank BRI, and Bank BCA recorded risk management implementation as good, but their operational efficiency was rated as very good.

The findings of this study indicate that although the implementation of risk management has been carried out effectively, it has not been able to positively influence and improve the company's operational efficiency positively. In fact, the implementation of risk management appears to decrease the level of operational efficiency, as evidenced by the negative coefficient of risk management application in the study. Therefore, when the implementation of corporate risk management increases, it directly correlates with a decrease in the company's operational efficiency.

The results of this study support the signal theory. This emphasizes that signals sent by the company can affect stakeholder perceptions about risk management and operational efficiency. The implementation of risk management that is too strict or less in accordance with the criteria and conditions of the subsidiary in a financial conglomerate will cause the implementation of such risk management to produce results that are less favorable or contrary to the expectations of the parent company, so that the results have a negative effect on operational efficiency.

The results of this study support and strengthen the results of research by Siregar and Amalia [29] and Saridawati et al. [30], indicating that the implementation of risk management has a negative effect on efficiency. The risk management practices implemented by the company do not have or do not provide an effect on the company's efficiency, as there are no cost savings within the company.

Based on the above, the findings of this study indicate that the implementation of risk management is unable to influence and improve operational efficiency. This means that when the implementation of corporate risk management increases, it will directly decrease operational efficiency. Conversely, when the implementation of management decreases or worsens, it will directly increase operational efficiency.

3.6. Increasing Operational Efficiency will be able to Increase Company Value (H-5).

The results of this study indicate that during the period 2015-2023, the level of operational efficiency of financial conglomerate banks is classified as very good. This means that, overall, the level of operational efficiency achieved by financial conglomerate banks is very good. The company value of all financial conglomerate banks is in the very good category. This data illustrates that, overall, financial conglomerate banks have a very good level of operational efficiency, thus obtaining a very good company value as well.

Among the financial conglomerate banks, three banks consistently have an operational efficiency level in the very good category every year, and their company value is also in the very good category, namely Bank Mandiri, Bank BRI, and Bank BCA. The bank with the highest operational efficiency is Bank BCA because the operational costs it incurs are far below the operational income it generates. Conversely, the most inefficient bank is Bank KB Bukopin. In 2023, its operational efficiency level is very inefficient, and its company value is classified as poor. This indicates that the bank's operational burden has far exceeded the operational income generated by the bank. Therefore, the bank is categorized as very inefficient and is still experiencing losses. According to Bank KB Bukopin's disclosure in its annual report, the bank has been experiencing problems in the credit sector due to Covid-19 since 2020, which has led to high operational burdens, including the formation of credit reserves, while its income has decreased drastically, resulting in a high efficiency level.

The results of this study support signal theory, which emphasizes that operational efficiency generated by a company indicates that the company can manage its resources effectively, leading to good financial performance. Increased operational efficiency that improves financial performance will signal to shareholders and investors that the company's resources are well-managed and that the company has good management quality, thereby increasing the company's value.

The results of this study also support and strengthen other studies that provide the same results as stated by Chronopoulos et al. [31], Casu and Girardone [32], Bourjade and Schindele [33], Jonathan [34] and Putri and Affandi [35], which state that efficiency has a significant effect on company value.

3.7. Improving the Quality of Supervision mediated by Operational Efficiency will be able to Increase Company Value (H-6).

The results of this study indicate that during the period 2015-2023, the quality of supervision carried out by banks on financial conglomerates is considered very good. All financial conglomerate banks have been able to meet the requirements of bank organs, so that supervision can be considered to be running well according to OJK regulations. All financial conglomerate banks have company values in the good category.

The quality of supervision that is implemented well and effectively will be able to protect banks from acts of deviation or fraud, which can be detrimental to the bank, and can be avoided or at least minimized so that the bank is not burdened with unnecessary costs. Synergy between companies in the financial conglomerate can run well to provide lower rates or costs, all of which will create operational efficiency in the financial conglomerate.

Based on the results of the study, it can be understood that financial conglomerate banks with excellent supervision quality will directly influence the company's value. The study also shows that financial conglomerate banks with excellent supervision quality have a significant and positive impact on operational efficiency. Similarly, banks with high operational efficiency significantly and positively influence the company's value. After testing the influence of supervision quality on the company's value, considering the mediating variable of operational efficiency, the results indicate that operational efficiency still positively influences the company's value, with a greater effect compared to the direct influence of supervision quality on the company's value. This suggests that the relationship between supervision quality and company value, mediated by operational efficiency, is stronger than the direct relationship between supervision quality and company value. This relationship has been previously illustrated in Figure 5.2. The operational efficiency variable acts as a mediating variable. Good and controlled operational efficiency enhances the company's financial performance, thereby increasing its value.

The results of this study further strengthen the theory of supervision, which is primarily based on performance, suggesting that supervision is a tool to improve organizational performance and achieve strategic goals [10] . The theory of supervision [11] argues that management supervision is a systematic effort to set implementation standards with planning objectives, design information systems, provide feedback, compare actual activities with previously set standards, determine and measure deviations, and take corrective actions as needed to ensure that all company resources are used effectively and efficiently in achieving company goals. With the implementation of good quality supervision, it will result in good management of company resources and good management quality, so that the company's financial performance will improve, which, of course, will increase the company's value through the company's operational efficiency that is well created.

The results of this study also support the results of previous studies such as Mili et al. [5], Hidayat [12], Volkov and Smith [13] and Ibrahim and Ragimun [14] who stated that supervision affects the value of the company. Good supervision carried out by the board of commissioners and all supervisory devices in the company, if carried out effectively, will have a positive effect on the company's value. Meanwhile, Krivogorsky [26] and Rebeiz and Salameh [27] stated that the quality of supervision affects the efficiency of the company. Furthermore, the results of research by Jonathan [34] and Putri and Affandi [35] stated that efficiency has an impact on company value.

Based on the above, the findings of this study indicate that improving the quality of supervision can significantly and positively influence and increase the company's value, which is mediated by operational efficiency. This means that when the quality of supervision carried out by the company improves, it will indirectly increase the company's value.

3.8. Improving the Quality of Risk Management Implementation mediated by Operational Efficiency will be able to increase Company Value (H-7)

Based on the results of this study during the period 2015-2023, data was obtained indicating that the majority of banks implementing risk management are classified as good; however, their company value is considered less favorable. This suggests that the implementation of risk management in financial conglomerate banks has a negative impact on company value. It was also found that risk management implementation does not positively affect company efficiency; instead, it appears to have a negative effect. This may be because risk management does not lead to cost savings within the company. Similarly, regarding company synergy, risk management implementation does not have a significant effect.

The implementation of risk management in financial conglomerate banks will directly have a negative effect on the company's value. The results of the study also show that the implementation of risk management in financial conglomerate banks has a negative effect on operational efficiency. However, operational efficiency has a significant and positive effect on the company's value. After testing in this study related to the effect of the implementation of risk management on the company's value, considering the mediating variable, namely operational efficiency, the results indicate that the operational efficiency variable still has a negative effect on the company's value, but its effect is greater compared to the direct effect of the implementation of risk management on the company's value. This suggests that the relationship between the implementation of risk management and the company's value, mediated by operational efficiency, is stronger than the direct relationship between risk management implementation and the company's value.

The results of this study support signal theory. (*signal theory*) which emphasizes that signals sent by the company can influence stakeholder perceptions about risk management and corporate value, including through operational efficiency. The implementation of risk management that is too strict or less in accordance with the criteria and conditions of the subsidiary in a financial conglomerate will cause the implementation of such risk management to produce results that are less favorable or contrary to the expectations of the parent company, so that the results have a negative effect on operational efficiency, which in turn will also have a negative effect on corporate value.

In line with previous research presented by Ardianto and Rivandi [19], Emar and Ayem [20], Siregar and Safitri [21] and Ticoalu, et al. [22]

stated that the implementation of risk management has no effect on company value. Meanwhile, Siregar and Amalia [29] and Saridawati et al. [30] stated that the implementation of risk management has no effect on efficiency. Based on the above, the findings of this study indicate that increasing the implementation of risk management is unable to influence and increase the value of the company, which is mediated by operational efficiency. This means that when the implementation of risk management is carried out by the company, it will indirectly reduce the value of the company.

4. Conclusion

Based on research conducted on company value by examining the influence of supervision quality and the implementation of risk management, with operational efficiency as a mediating variable, several conclusions can be drawn. The effective and disciplined implementation of supervision in banking financial conglomerates significantly increases the company's value, both directly and indirectly, through operational efficiency. The implementation of risk management in banking financial conglomerates does not affect the company's value, either directly or indirectly, through operational efficiency. Increasing operational efficiency significantly and positively impacts the company's value in banking financial conglomerates. The effective and disciplined implementation of supervision in banking financial conglomerates significantly enhances operational efficiency. The implementation of risk management does not influence operational efficiency in banking financial conglomerates. Operational efficiency is the variable with the greatest influence on company value in banking financial conglomerates.

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