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Uncertain Supply Chain Management



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Supply chain management (SCM) plays an essential role in managing the

movement of raw materials into an organization, certain issues of the internal processing of materials into finished goods, and the movement of finished products out of the organization for end-consumer delivery. The goal of SCM is to improve trust and collaboration among supply chain partners and to improve inventory visibility. However, many SCM problems deal with uncertain events such as uncertainty in demand, supply, quality, price, etc. This forum is dedicated to all scholars who wish to share their ideas about uncertainty in SCM problems. Uncertain supply chain management is a quarterly publication dedicated to all scientists in all over the world who wish to share their experiences and knowledge in this field. Our policy is to perform a peer review on all submitted articles and publishes original and high quality articles. The following covers the areas of SCM works covered by this journal,

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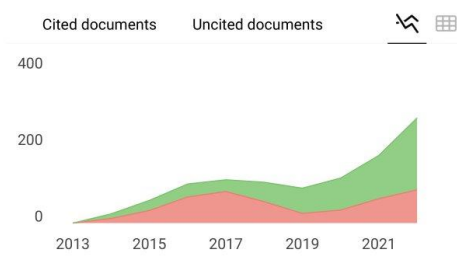
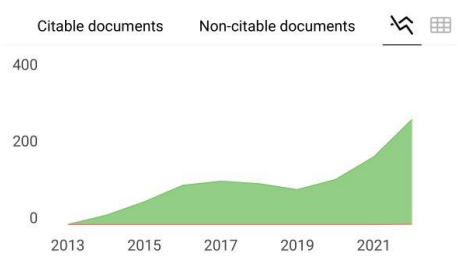
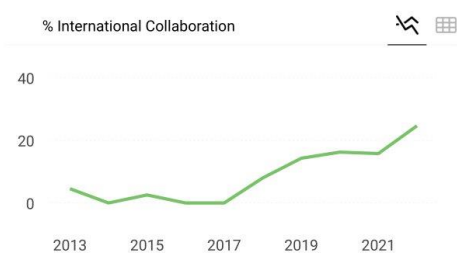
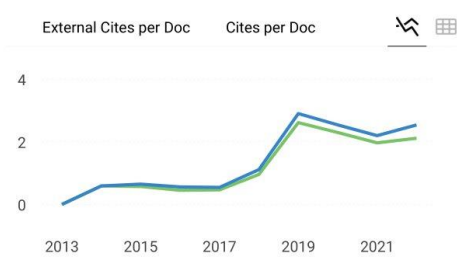
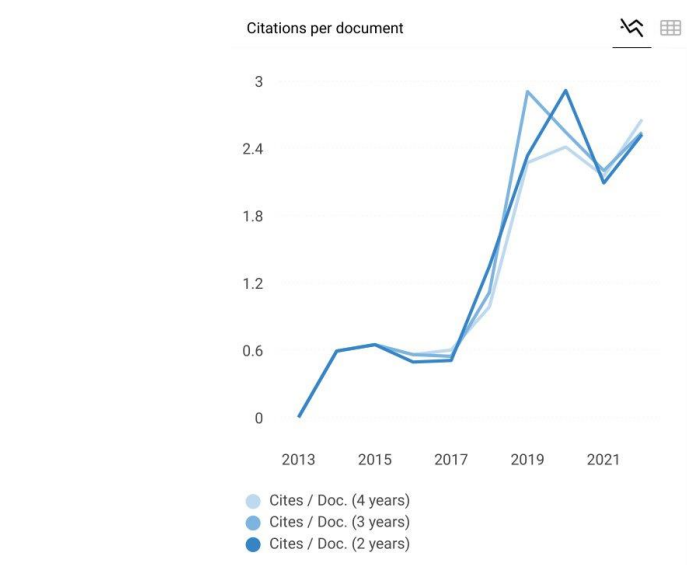
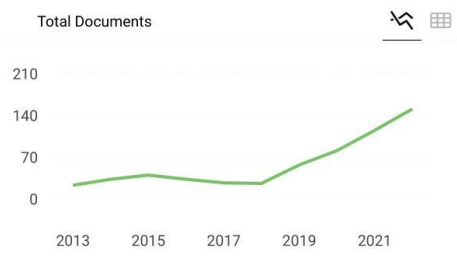
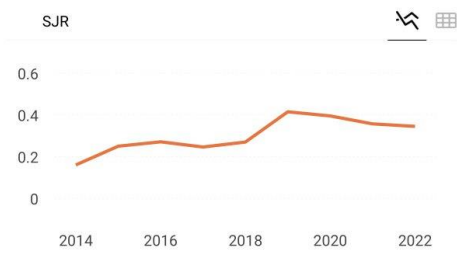
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Abstract: The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

**MANUSCRIPT
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ENTERPRISE RISK MANAGEMENT AND SUPPLY CHAIN MANAGEMENT: THE MEDIATING ROLE OF COMPETITIVE ADVANTAGE AND DECISION MAKING IN IMPROVING FIRMS PERFORMANCE

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Abstract

The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

Keywords: Enterprise Risk Management, Supply Chain Management, Competitive Advantage, Decision Making, Firm Performance

Introduction

Enterprise Risk Management (ERM) has experienced rapid development in response to the increasingly complex and dynamic business environment across various companies. ERM is a holistic approach that assists companies in identifying, assessing, managing, and monitoring all types of risks that can impact the achievement of corporate objectives (Shad et al., 2019). One of the key factors driving the growth of ERM is the increased operational complexity and uncertainty in the global market. Sax & Andersen (2019) state that ERM enables companies to have a better understanding of risks and integrate risk management strategies into business decisions. Additionally, demands from stakeholders such as shareholders, regulators, and clients also compel companies to enhance the quality of corporate risk management. González et al. (2020) emphasize that the sustainability of a company and stakeholder trust heavily depends on the company's ability to manage risks effectively. ERM can help companies maintain corporate reputation, avoid significant financial losses, and ensure long-term sustainability. The development of information technology also plays a crucial role in advancing ERM (Dicuonzo et al., 2019). Sophisticated risk management systems and data analysis platforms assist companies in monitoring risks in real-time, making quick decisions, and proactively responding to changes in market conditions or other unforeseen events. In addition to the defensive aspects of risk management, ERM is also considered a strategic tool for creating value (Saeidi et al., 2019; Anton & Nucu, 2020). Companies successfully implementing ERM can identify risk opportunities that enhance performance and competitiveness. By understanding risk as part of the business strategy, companies can make smarter decisions to achieve long-term goals. The rapid development of enterprise risk management reflects the need for companies to be prepared to face the complex challenges and opportunities in the modern business era (Rehman & Anwar, 2019).

In the economic development of a country, financial institutions play a crucial role. The primary function of financial institutions involves allocating financial resources from those with surplus funds to those in need of funds for investment. By providing financial access, financial institutions enable companies and individuals to engage in economic activities such as production, investment, and consumption (Merton &

Thakor, 2019; Sukmana et al., 2020). One key role of financial institutions is to provide credit to companies and individuals in need of funds. This credit can be used to finance large projects, expand operations, or innovate. Through the provision of credit, financial institutions support economic growth by providing financial support to sectors with the potential to create jobs and increase production (Park & Kim, 2020). Moreover, financial institutions also play a role in economic risk management. They offer various financial instruments, such as insurance and derivatives, which help companies manage risks associated with price fluctuations, currency, and interest rates. In this way, financial institutions provide economic stability and help prevent financial crises that can harm the overall economy (Chen et al., 2021; Huy et al., 2021).

Literature Review

The purpose of Enterprise Risk Management (ERM) is to create a better understanding of the risks faced by a company and to ensure that business strategies align with the established risk tolerance (Tan & Lee, 2022). ERM involves a series of processes, including risk identification, risk assessment, development of risk management strategies, implementation of risk management measures, and continuous monitoring and review. One of the main advantages of ERM is its ability to respond to the changing dynamics of the business environment, enabling companies to identify and respond to new or evolving risks over time (Yang et al., 2018; Jankensgård, 2019; Ricardianto et al., 2023). ERM helps companies identify, assess, and manage potential risks that can affect corporate performance. By comprehensively understanding risks, companies can design more adaptive and responsive strategies to changes in market conditions (Jankensgård, 2019). ERM also provides an advantage by offering resilience to risks. Companies that can manage risks effectively can avoid significant financial losses, protect corporate reputation, and maintain stakeholder trust. Thus, ERM not only reduces the potential for losses but also creates a more robust foundation for long-term growth and business sustainability (Ching et al., 2020; Olaniyi et al., 2023).

The integrated ERM process provides more comprehensive information to decision-makers. Accurate risk data and analysis assist in identifying opportunities and addressing challenges more effectively (Crovini et al., 2021). Therefore, companies implementing ERM can make smarter strategic decisions and optimize resource allocation according to long-term business goals. ERM is not just an approach to risk management; it is a key element in achieving sustainable corporate objectives. Hristov et al. (2022) assert that by implementing ERM, companies can identify and manage potential risks that can affect the achievement of strategic corporate goals. One way ERM contributes to firm performance is through the management of financial risk. By designing effective financial risk management strategies, companies can protect their asset values, optimize financial performance, and create stability in changing market conditions.

Hypothesis 1a. Enterprise risk management has a positive effect on competitive advantage

Hypothesis 1b. Enterprise risk management has a positive effect on decision making

Hypothesis 1c. Enterprise risk management has a positive effect on firm performance

Meanwhile, Supply Chain Management (SCM) is a strategic approach to plan, manage, and coordinate all activities involved in the supply chain of products or services, from raw material procurement to the distribution of end products to consumers (Khan et al., 2019). SCM is designed to improve operational efficiency, reduce costs, and enhance customer satisfaction through the integrated management of all business processes involved in the movement of products or services. The success of SCM can provide several benefits, including improved operational efficiency, inventory cost reduction, increased responsiveness to market demand, and enhanced customer satisfaction (Madhani, 2019; Negi, 2021). Furthermore, SCM can enhance the flexibility and resilience of the supply chain, enabling companies to be more responsive to changes in market needs or external conditions. The importance of SCM continues to grow with the complexity of globalization and the acceleration of technology. Companies that successfully implement SCM can leverage competitive advantages, accelerate time-to-market, and create added value for their customers (Haddouch et al., 2019; Cahyono et al., 2023).

Improved operational efficiency, cost reduction, and increased timeliness can give companies a competitive edge in terms of pricing and services, creating higher competitiveness in the market. SCM also has a direct impact on business decisions by providing accurate and real-time information about the entire supply chain (Keskin et al., 2021). Data management and SCM analysis can help companies better understand the dynamics of supply and demand. Additionally, SCM plays a key role in addressing the challenges and opportunities of globalization. Decisions related to sourcing, production location, and transportation can affect costs and delivery times, significantly impacting competitiveness in the global market (Yang et al., 2018; Pasi et al., 2020). In terms of financial performance, SCM can also make a positive contribution. The selection of service providers, inventory management, and effective supply chain risk management can reduce operational costs and financial risks, positively impacting net income and profitability. SCM also supports product innovation and differentiation (Lam et al., 2019; Lee, 2021). By understanding customer needs and collaborating with business partners in the supply chain, companies can produce more innovative products that meet consumer expectations. Product innovation and differentiation

can be key factors in creating competitive advantages and enhancing a company's performance in the market (Abdirad & Krishnan, 2022).

Hypothesis 2a. Supply chain management has a positive effect on competitive advantage

Hypothesis 2b. Supply chain management has a positive effect on decision making

Hypothesis 2c. Supply chain management has a positive effect on firm performance

Competitive advantage encompasses a set of factors or characteristics that differentiate a company from its competitors, provide added value to customers, and give the company a stronger position in the market. By offering something unique or superior to competitors, a company can attract customer attention and build loyalty (Hidayatullah et al., 2019; Annarelli et al., 2020). This differentiation not only creates added value for customers but can also support higher pricing, increase profit margins, and ultimately enhance the financial performance of the company. Saeidi et al. (2019) state that competitive advantage also plays a role in attracting investments and talent. Companies with a strong competitive advantage become more attractive to investors due to higher potential for long-term growth and profits. Additionally, having a competitive advantage can help a company attract and retain the best talent in the industry because employees tend to be drawn to successful and innovative companies (Cahyono et al., 2023). Companies can use this advantage as a foundation to develop growth strategies, enter new markets, or innovate in products or services. The ability to leverage competitive advantage effectively in strategic decision-making can help a company maintain its position in the market and improve its performance (Azeem et al., 2021).

Hypothesis 3a. Competitive advantage has a positive effect on firm performance

Hypothesis 3b. Competitive advantage mediates the relationship between enterprise risk management and firm performance

Hypothesis 3c. Competitive advantage mediates the relationship between supply chain management and firm performance

Correct business decisions play a central role in creating company performance. An effective decision-making process can guide the company toward achieving its business goals. Good decisions can help the company identify growth opportunities (Awan et al., 2021). By analyzing the market, industry trends, and customer needs, a company can make strategic decisions that support the development of new products, market expansion, or business portfolio diversification. Good decisions in resource allocation and risk management can contribute significantly to company performance (Dos Santos et al., 2019; Crovini et al., 2021). Efficient fund management, investment balancing, and a good understanding of risks can minimize potential losses and enhance the financial stability of the company. Decisions related to capital structure and investment can impact profitability and long-term growth. Furthermore, business decisions also play a crucial role in building the company's reputation. Ethical decisions, corporate social responsibility, and consistent product or service quality can build customer trust and a positive image in the market (Hristov et al., 2022). A good reputation can strengthen the company's brand, increase customer loyalty, and overall support long-term performance. Decisions related to innovation and adaptation to changes in the business environment can ensure that the company remains relevant and competitive in a continually evolving market. Therefore, responsive and proactive decision-making is key to creating superior and sustainable firm performance (Fischer et al., 2020).

Hypothesis 4a. Decision making has a positive effect on firm performance

Hypothesis 4b. Decision making mediates the relationship between enterprise risk management and firm performance

Hypothesis 4c. Decision making mediates the relationship between supply chain management and firm performance

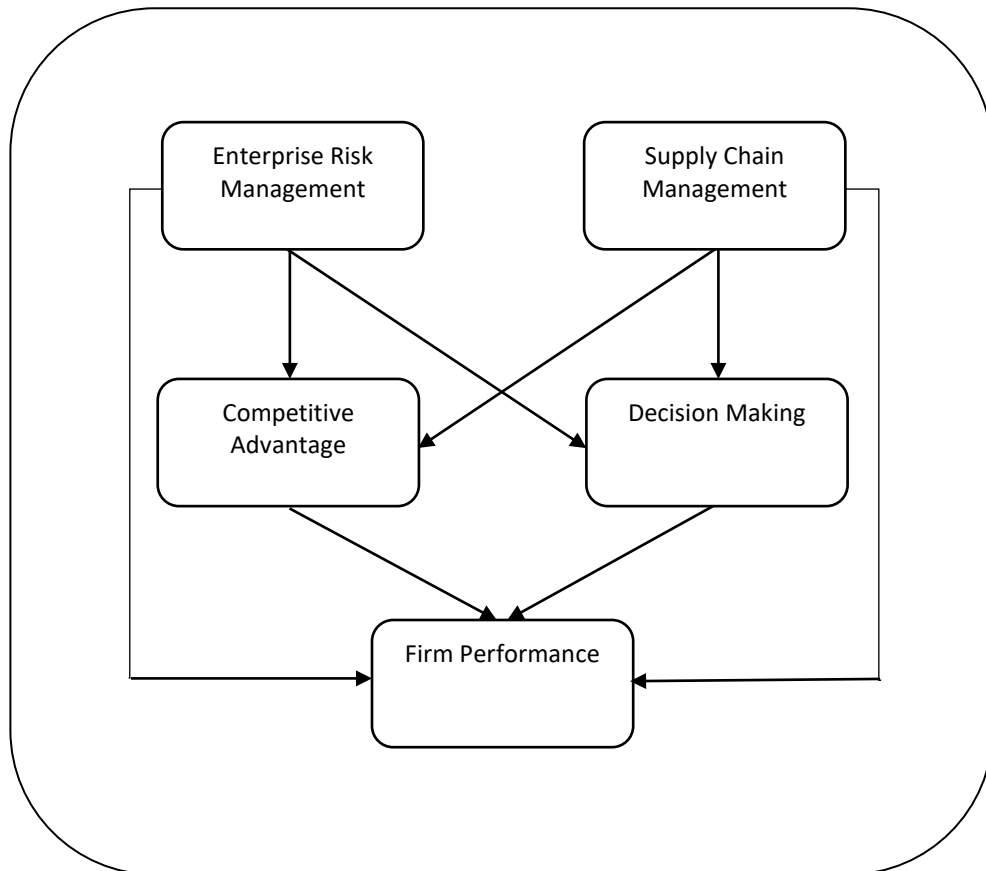


Figure 1. Theoretical Framework

Research Method

This study employs a quantitative research methodology approach adopted from Yang et al. (2018). Data collection is conducted through the distribution of questionnaires using an online platform designed with a Likert scale, where respondents are asked to assess statements on a scale ranging from 1 to 5 (disagree – strongly agree). The sample selection process utilizes random sampling, meaning each member of the population has an equal chance of being chosen as a respondent. The respondents in this study consist of managers and staff working in banks owned by State-Owned Enterprises (SOE/BUMN) in Indonesia. The number of samples that can be analyzed for this research is 263 samples. This number is obtained from a total of 400 questionnaires distributed to respondents, but only 279 were successfully collected, indicating a questionnaire return rate of 69.75%. Furthermore, there are 18 questionnaires that were not fully completed, so these questionnaires cannot be continued to the analysis stage. The data collection process took place from February 2023 to June 2023, providing a sufficient timeframe to obtain representative data. Once the data is collected, the analysis is carried out using Structural Equation Modeling (SEM) with the assistance of SmartPLS software. This method provides a statistical analysis framework to examine the relationships between variables in the research model. By combining Likert questionnaires, random sampling techniques, and SEM, this research aims to provide a deep understanding of the factors influencing company performance, specifically in State-Owned Banks in Indonesia. The results of the analysis are expected to offer strategic insights and valuable policy recommendations for bank management and relevant stakeholders.

Research Result

This study explores the relationship between Enterprise Risk Management (ERM) and Supply Chain Management (SCM) as independent variables on firm performance. ERM, encompassing a holistic approach to risk management across the entire organization, and SCM, focusing on optimizing the supply chain, are identified as factors that may influence company performance. In this research, competitive advantage and decision making are positioned as mediating variables expected to bridge the influence of ERM and SCM on firm performance. Competitive advantage is believed to provide a competitive edge through the distinctive features of the company, while decision making is considered a key mediator in translating strategic decisions into outcomes that affect company performance. As for the Enterprise Risk Management (ERM) variable, it is measured using 4 indicators, while the Supply Chain Management (SCM) variable uses 5 indicators. The competitive advantage variable uses 3 indicators, decision making 2 indicators, and firm performance uses 3 indicators. Initial analysis is conducted to assess the relevance of the questionnaire questions used to measure the indicator's level, performed through the standard loading factor test. The minimum value required to conclude that the questionnaire questions used are relevant is > 0.6 . The results of the standard loading factor test are presented in Figure 2.

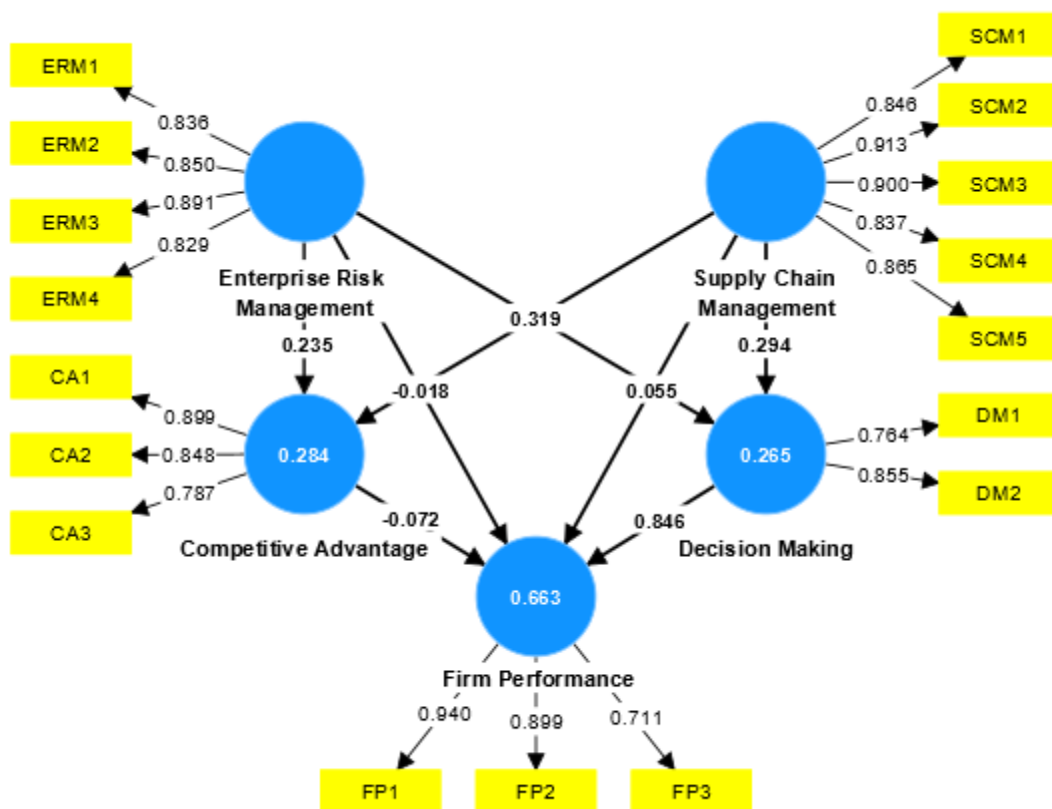


Figure 2. Analysis Results

The test results indicate that the 4 indicators used to measure the enterprise risk management variable, namely ERM1, obtained a standard loading factor value of 0.836, ERM2 at 0.850, ERM3 at 0.891, and ERM4 at 0.829. Furthermore, the five indicators measuring the supply chain management variable, namely SCM1, obtained a standard loading factor value of 0.846, SCM2 at 0.913, SCM3 at 0.900, SCM4 at 0.837, and SCM5 at 0.865. There are 3 indicators used to measure the competitive advantage variable. The standard loading factor values obtained are CA1 at 0.899, CA2 at 0.848, and CA3 at 0.787. The standard loading factor values obtained for the indicators measuring the decision-making variable are DM1 at 0.764 and DM2 at 0.855. The standard loading factor values obtained for the indicators measuring the firm performance variable are FP1 at 0.940, FP2 at 0.899, and FP3 at 0.711. More detailed results of the standard loading factor values obtained from each indicator can be seen in Table 1.

Table 1. Standard Loading Factor

Variable	Indicator	Std. Loading Factor
Enterprise Risk Management	ERM1	0.836
	ERM2	0.850
	ERM3	0.891
	ERM4	0.829
Supply Chain Management	SCM1	0.846
	SCM2	0.913
	SCM3	0.900
	SCM4	0.837
	SCM5	0.865
Competitive Advantage	CA1	0.899
	CA2	0.848
	CA3	0.787
Decision Making	DM1	0.764
	DM2	0.855
Firm Performance	FP1	0.940
	FP2	0.899
	FP3	0.711

In determining the level of reliability and validity of indicators in measuring latent variables, this study uses reliability testing and validity testing in its measurements. Reliability testing aims to assess the extent to which the measurement instrument can provide consistent results when repeated on the same subjects or objects. An instrument considered reliable means it is dependable and not significantly influenced

by irrelevant or undesirable factors. In reliability testing, the composite reliability value serves as the baseline measure of how reliable indicators are in measuring latent variables. The minimum accepted composite reliability value to declare indicators reliable is 0.7. Validity testing, on the other hand, aims to assess the extent to which a measurement instrument or test truly measures the intended variable. Validity measures how effective and accurate an instrument is in measuring the intended variable. In validity testing, the level of validity of indicators is based on the Average Variance Extracted (AVE) values obtained. The minimum accepted AVE value to demonstrate that the indicators used have good validity is 0.6. Additionally, discriminant validity testing is used to provide further insight into the level of validity of indicators. In this study, discriminant validity testing (cross-loading) is employed, where the results provide a detailed overview of the values obtained from each indicator in measuring latent variables. The results of reliability and validity testing are presented in Table 2, while discriminant validity testing (cross-loading) is presented in Table 3.

Table 2. Reliability and Validity Testing

Variable	Composite reliability	Average variance extracted (AVE)
Enterprise Risk Management	0.914	0.725
Supply Chain Management	0.941	0.762
Competitive Advantage	0.883	0.716
Decision Making	0.793	0.657
Firm Performance	0.890	0.732

Table 3. Discriminant Validity (Cross Loading)

Variable	Enterprise Risk Management	Supply Chain Management	Competitive Advantage	Decision Making	Firm Performance
ERM1	0.836	0.326	0.272	0.330	0.253
ERM2	0.850	0.298	0.310	0.333	0.255
ERM3	0.891	0.454	0.417	0.489	0.427
ERM4	0.829	0.270	0.315	0.289	0.183
SCM1	0.310	0.846	0.392	0.290	0.226
SCM2	0.363	0.913	0.442	0.360	0.323
SCM3	0.336	0.900	0.369	0.355	0.335
SCM4	0.384	0.837	0.391	0.302	0.297
SCM5	0.388	0.865	0.505	0.495	0.405
CA1	0.293	0.450	0.899	0.633	0.487
CA2	0.267	0.423	0.848	0.557	0.457
CA3	0.448	0.364	0.787	0.577	0.420
DM1	0.477	0.470	0.784	0.764	0.458
DM2	0.262	0.247	0.394	0.855	0.824
FP1	0.308	0.274	0.471	0.795	0.940
FP2	0.285	0.304	0.506	0.725	0.899
FP3	0.316	0.419	0.405	0.535	0.711

The reliability test results for the enterprise risk management variable obtained a composite reliability value of 0.914. The supply chain management variable obtained a composite reliability value of 0.941. The composite reliability values obtained for the competitive advantage, decision making, and firm performance variables were 0.883, 0.793, and 0.890, respectively. The composite reliability values obtained for all these variables proved to be greater than 0.7. This indicates that the indicators used to measure each latent variable are reliable and have a high level of reliability. In terms of validity testing, the AVE values obtained for the enterprise risk management, supply chain management, competitive advantage, decision making, and firm performance variables were 0.725, 0.762, 0.716, 0.657, and 0.732, respectively. The AVE values obtained for all these variables are above 0.6, indicating that the indicators used to measure each latent variable have a good level of validity. Additionally, in Table 3, the discriminant validity testing (cross-loading) also proved successful, with the values obtained for each indicator being higher in measuring the measured latent variable compared to other variables (indicated in bold). After testing the indicators in measuring latent variables and accepting each test, hypothesis testing is conducted to measure the extent of the relationship between variables. In this study, there are both direct relationships and relationships that are not direct or through mediation. Hypotheses are considered accepted and have a significant influence, as evidenced by the

T-statistic values exceeding 1.96 or p-values less than 0.05. The results of the hypothesis testing are presented in Figure 3 and in detail in Table 4.

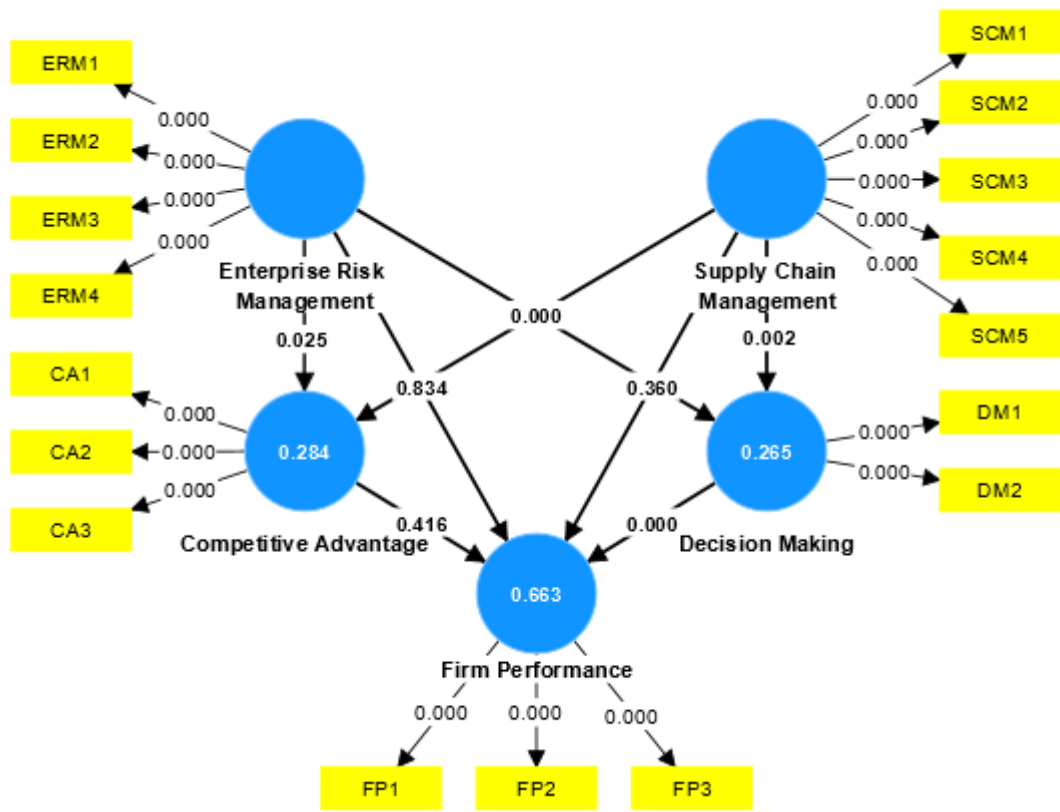


Figure 3. Path Coefficient

Table 4. Hypothesis Testing

	Hypothesis	T statistics	p-values	Information
H1a	Enterprise Risk Management -> Competitive Advantage	2.271	0.025	Significant
H1b	Enterprise Risk Management -> Decision Making	3.900	0.000	Significant
H1c	Enterprise Risk Management -> Firm Performance	0.210	0.834	Not Significant
H2a	Supply Chain Management -> Competitive Advantage	4.409	0.000	Significant
H2b	Supply Chain Management -> Decision Making	3.195	0.002	Significant
H2c	Supply Chain Management -> Firm Performance	0.920	0.360	Not Significant
H3a	Competitive Advantage -> Firm Performance	0.817	0.416	Not Significant
H3b	Enterprise Risk Management -> Competitive Advantage -> Firm Performance	0.718	0.474	Not Significant
H3c	Supply Chain Management -> Competitive Advantage -> Firm Performance	0.762	0.448	Not Significant
H4a	Decision Making -> Firm Performance	13.932	0.000	Significant
H4b	Enterprise Risk Management -> Decision Making -> Firm Performance	3.742	0.000	Significant
H4c	Supply Chain Management -> Decision Making -> Firm Performance	3.166	0.002	Significant

In hypothesis 1a, the influence of enterprise risk management on competitive advantage obtained a T-statistic value of 2.271 (>1.96) and a p-value of 0.025 (< 0.05), meaning that this hypothesis is accepted as it has a significant effect. Hypothesis 2b, stating that enterprise risk management has an impact on decision making, is also accepted. This is evidenced by the T-statistic value of 3.900 and a p-value of 0.000. However, in hypothesis 1c, the influence of enterprise risk management on firm performance is not significant. This is because the T-statistic value obtained is only 0.210, and the p-value is 0.834. Moving on to hypothesis 2a, which states that supply chain management has an influence on competitive advantage, the T-statistic value is 4.409, and the p-value is 0.000. This indicates that the hypothesis is accepted, meaning it has a significant effect. Hypothesis 2b, the impact of supply chain management on decision making, also proves to have a significant effect, as evidenced by the T-statistic value of 3.195 and a p-value of 0.002. However, hypothesis 2c, stating that supply chain management has an impact on firm performance, is rejected because the T-statistic value obtained is only 0.920, and the p-value is 0.360.

Conclusion

The research findings conclude that the implementation of Enterprise Risk Management (ERM) significantly contributes to creating a competitive advantage and supports better decision-making in the

financial institution studied. Although ERM does not directly impact firm performance, its role in creating a competitive advantage and supporting strategic decision-making through the mediator decision-making is crucial. Additionally, Supply Chain Management (SCM) has also been proven to have a significant positive impact on creating a competitive advantage and supporting better decision-making. However, the implementation of SCM does not directly affect firm performance, indicating that SCM's focus is more on optimizing the supply chain and creating a competitive advantage. Competitive advantage, while not having a direct influence on firm performance, remains a crucial element in attracting customer attention, enhancing loyalty, and building a positive image. On the other hand, decision-making has proven to have a significant positive impact on firm performance, reinforcing the argument that good decision-making plays a key role in a company's success.

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PEER REVIEW PROCESS



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Dear Author,

I hope this message reaches you well. We have carefully reviewed your manuscript entitled "ENTERPRISE RISK MANAGEMENT AND SUPPLY CHAIN MANAGEMENT: THE MEDIATING ROLE OF COMPETITIVE ADVANTAGE AND DECISION MAKING IN IMPROVING FIRMS PERFORMANCE". in your research, there are some important revisions that are needed before we can move on to the next process. In particular, we ask that you encourage the expansion of the introduction and research results as well as the conclusion. Finally, please improve the introduction so that it makes sense for future research. Once you have made these revisions, please resubmit your manuscript. We will then continue with the next process. We appreciate your understanding and look forward to receiving your revised work. If you have any questions or require further clarification, please do not hesitate to contact us.

Thank you for your contribution to our journal.

Regards,

Editor

Uncertain Supply Chain Management

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ENTERPRISE RISK MANAGEMENT AND SUPPLY CHAIN MANAGEMENT: THE MEDIATING ROLE OF COMPETITIVE ADVANTAGE AND DECISION MAKING IN IMPROVING FIRMS PERFORMANCE

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Abstract

The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

Keywords: Enterprise Risk Management, Supply Chain Management, Competitive Advantage, Decision Making, Firm Performance

Introduction

Enterprise Risk Management (ERM) has experienced rapid development in response to the increasingly complex and dynamic business environment across various companies. ERM is a holistic approach that assists companies in identifying, assessing, managing, and monitoring all types of risks that can impact the achievement of corporate objectives (Shad et al., 2019). One of the key factors driving the growth of ERM is the increased operational complexity and uncertainty in the global market. Sax & Andersen (2019) state that ERM enables companies to have a better understanding of risks and integrate risk management strategies into business decisions. Additionally, demands from stakeholders such as shareholders, regulators, and clients also compel companies to enhance the quality of corporate risk management. González et al. (2020) emphasize that the sustainability of a company and stakeholder trust heavily depends on the company's ability to manage risks effectively. ERM can help companies maintain corporate reputation, avoid significant financial losses, and ensure long-term sustainability. The development of information technology also plays a crucial role in advancing ERM (Dicuonzo et al., 2019). Sophisticated risk management systems and data analysis platforms assist companies in monitoring risks in real-time, making quick decisions, and proactively responding to changes in market conditions or other unforeseen events. In addition to the defensive aspects of risk management, ERM is also considered a strategic tool for creating value (Saeidi et al., 2019; Anton & Nucu, 2020). Companies successfully implementing ERM can identify risk opportunities that enhance performance and competitiveness. By understanding risk as part of the business strategy, companies can make smarter decisions to achieve long-term goals. The rapid development of enterprise risk management reflects the need for companies to be prepared to face the complex challenges and opportunities in the modern business era (Rehman & Anwar, 2019).

In the economic development of a country, financial institutions play a crucial role. The primary function of financial institutions involves allocating financial resources from those with surplus funds to

those in need of funds for investment. By providing financial access, financial institutions enable companies and individuals to engage in economic activities such as production, investment, and consumption (Merton & Thakor, 2019; Sukmana et al., 2020). One key role of financial institutions is to provide credit to companies and individuals in need of funds. This credit can be used to finance large projects, expand operations, or innovate. Through the provision of credit, financial institutions support economic growth by providing financial support to sectors with the potential to create jobs and increase production (Park & Kim, 2020). Moreover, financial institutions also play a role in economic risk management. They offer various financial instruments, such as insurance and derivatives, which help companies manage risks associated with price fluctuations, currency, and interest rates. In this way, financial institutions provide economic stability and help prevent financial crises that can harm the overall economy (Chen et al., 2021; Huy et al., 2021).

Financial institutions also play a role in enhancing financial inclusion by providing financial access to a broader segment of society. This includes offering banking services to customers or clients who previously lacked access to formal financial systems (Yang et al., 2018; Pazarbasioglu et al., 2020). By improving financial inclusion, financial institutions can empower communities to manage their finances, enhance well-being, and support inclusive economic growth. The involvement of Enterprise Risk Management (ERM) in financial institutions is more crucial compared to companies in other sectors. The presence of ERM in financial institutions reflects not only risk management as an operational responsibility but also as an urgent necessity in a complex and fluctuating business environment (Chattha et al., 2020; Mhlanga, 2021). Because core activities of financial institutions, such as banking, involve financial intermediation and fund management, they are highly dependent on market trust and stability. Therefore, ERM becomes a critical foundation to ensure that financial institutions can identify, measure, and manage risks effectively. Financial institutions also face unique risks such as reputation and legal risks, which often take center stage in the company's ERM focus. Public trust in financial institutions heavily relies on the company's ability to manage these risks wisely (Aljughaiman & Salama, 2019; Hummel et al., 2021; Saeidi et al., 2021).

Additionally, Supply Chain Management (SCM) also plays a central role in enhancing the performance of financial institutions. SCM helps financial institutions achieve higher operational efficiency by managing the supply chain optimally (Lee, 2021; Dharmayanti et al., 2023). Internal processes, such as transaction processing and information management, can be optimized to improve productivity and reduce operational costs. With SCM, a deep understanding of customer needs and effective management of the supply of various financial products and services drive the creation of more innovative and competitive solutions in the dynamic market (Marbun et al., 2020). Moreover, SCM contributes to customer satisfaction by ensuring consistent service availability and providing a quick response to customer demands (Abdirad & Krishnan, 2022). Furthermore, SCM enables financial institutions to be more responsive to changes in the market. Effective monitoring of changes in the economic and regulatory environment allows financial institutions to adjust their supply and operational strategies more quickly and efficiently (Lam et al., 2019; Sukati et al., 2020). Many previous studies have analyzed the influence of Enterprise Risk Management (ERM) and Supply Chain Management (SCM) on firm performance. However, there is still limited research that analyzes both simultaneously and uses competitive advantage and decision-making factors as mediating variables, especially in companies in the financial sector. Thus, this study aims to fill this gap by examining the influence of ERM and SCM on firm performance using competitive advantage and decision-making variables as mediating factors.

Literature Review

The purpose of Enterprise Risk Management (ERM) is to create a better understanding of the risks faced by a company and to ensure that business strategies align with the established risk tolerance (Tan & Lee, 2022). ERM involves a series of processes, including risk identification, risk assessment, development of risk management strategies, implementation of risk management measures, and continuous monitoring and review. One of the main advantages of ERM is its ability to respond to the changing dynamics of the business environment, enabling companies to identify and respond to new or evolving risks over time (Yang et al., 2018; Jankensgård, 2019; Ricardianto et al., 2023). ERM helps companies identify, assess, and manage potential risks that can affect corporate performance. By comprehensively understanding risks, companies can design more adaptive and responsive strategies to changes in market conditions (Jankensgård, 2019). ERM also provides an advantage by offering resilience to risks. Companies that can manage risks effectively can avoid significant financial losses, protect corporate reputation, and maintain stakeholder trust. Thus, ERM not only reduces the potential for losses but also creates a more robust foundation for long-term growth and business sustainability (Ching et al., 2020; Olaniyi et al., 2023).

The integrated ERM process provides more comprehensive information to decision-makers. Accurate risk data and analysis assist in identifying opportunities and addressing challenges more effectively (Crovini et al., 2021). Therefore, companies implementing ERM can make smarter strategic decisions and optimize resource allocation according to long-term business goals. ERM is not just an approach to risk management; it is a key element in achieving sustainable corporate objectives. Hristov et al. (2022) assert that by implementing ERM, companies can identify and manage potential risks that can affect the achievement of strategic corporate goals. One way ERM contributes to firm performance is through the management of

financial risk. By designing effective financial risk management strategies, companies can protect their asset values, optimize financial performance, and create stability in changing market conditions.

Hypothesis 1a. Enterprise risk management has a positive effect on competitive advantage

Hypothesis 1b. Enterprise risk management has a positive effect on decision making

Hypothesis 1c. Enterprise risk management has a positive effect on firm performance

Meanwhile, Supply Chain Management (SCM) is a strategic approach to plan, manage, and coordinate all activities involved in the supply chain of products or services, from raw material procurement to the distribution of end products to consumers (Khan et al., 2019). SCM is designed to improve operational efficiency, reduce costs, and enhance customer satisfaction through the integrated management of all business processes involved in the movement of products or services. The success of SCM can provide several benefits, including improved operational efficiency, inventory cost reduction, increased responsiveness to market demand, and enhanced customer satisfaction (Madhani, 2019; Negi, 2021). Furthermore, SCM can enhance the flexibility and resilience of the supply chain, enabling companies to be more responsive to changes in market needs or external conditions. The importance of SCM continues to grow with the complexity of globalization and the acceleration of technology. Companies that successfully implement SCM can leverage competitive advantages, accelerate time-to-market, and create added value for their customers (Haddouch et al., 2019; Cahyono et al., 2023).

Improved operational efficiency, cost reduction, and increased timeliness can give companies a competitive edge in terms of pricing and services, creating higher competitiveness in the market. SCM also has a direct impact on business decisions by providing accurate and real-time information about the entire supply chain (Keskin et al., 2021). Data management and SCM analysis can help companies better understand the dynamics of supply and demand. Additionally, SCM plays a key role in addressing the challenges and opportunities of globalization. Decisions related to sourcing, production location, and transportation can affect costs and delivery times, significantly impacting competitiveness in the global market (Yang et al., 2018; Pasi et al., 2020). In terms of financial performance, SCM can also make a positive contribution. The selection of service providers, inventory management, and effective supply chain risk management can reduce operational costs and financial risks, positively impacting net income and profitability. SCM also supports product innovation and differentiation (Lam et al., 2019; Lee, 2021). By understanding customer needs and collaborating with business partners in the supply chain, companies can produce more innovative products that meet consumer expectations. Product innovation and differentiation can be key factors in creating competitive advantages and enhancing a company's performance in the market (Abdirad & Krishnan, 2022).

Hypothesis 2a. Supply chain management has a positive effect on competitive advantage

Hypothesis 2b. Supply chain management has a positive effect on decision making

Hypothesis 2c. Supply chain management has a positive effect on firm performance

Competitive advantage encompasses a set of factors or characteristics that differentiate a company from its competitors, provide added value to customers, and give the company a stronger position in the market. By offering something unique or superior to competitors, a company can attract customer attention and build loyalty (Hidayatullah et al., 2019; Annarelli et al., 2020). This differentiation not only creates added value for customers but can also support higher pricing, increase profit margins, and ultimately enhance the financial performance of the company. Saeidi et al. (2019) state that competitive advantage also plays a role in attracting investments and talent. Companies with a strong competitive advantage become more attractive to investors due to higher potential for long-term growth and profits. Additionally, having a competitive advantage can help a company attract and retain the best talent in the industry because employees tend to be drawn to successful and innovative companies (Cahyono et al., 2023). Companies can use this advantage as a foundation to develop growth strategies, enter new markets, or innovate in products or services. The ability to leverage competitive advantage effectively in strategic decision-making can help a company maintain its position in the market and improve its performance (Azeem et al., 2021).

Hypothesis 3a. Competitive advantage has a positive effect on firm performance

Hypothesis 3b. Competitive advantage mediates the relationship between enterprise risk management and firm performance

Hypothesis 3c. Competitive advantage mediates the relationship between supply chain management and firm performance

Correct business decisions play a central role in creating company performance. An effective decision-making process can guide the company toward achieving its business goals. Good decisions can help the company identify growth opportunities (Awan et al., 2021). By analyzing the market, industry trends, and customer needs, a company can make strategic decisions that support the development of new

products, market expansion, or business portfolio diversification. Good decisions in resource allocation and risk management can contribute significantly to company performance (Dos Santos et al., 2019; Crovini et al., 2021). Efficient fund management, investment balancing, and a good understanding of risks can minimize potential losses and enhance the financial stability of the company. Decisions related to capital structure and investment can impact profitability and long-term growth. Furthermore, business decisions also play a crucial role in building the company's reputation. Ethical decisions, corporate social responsibility, and consistent product or service quality can build customer trust and a positive image in the market (Hristov et al., 2022). A good reputation can strengthen the company's brand, increase customer loyalty, and overall support long-term performance. Decisions related to innovation and adaptation to changes in the business environment can ensure that the company remains relevant and competitive in a continually evolving market. Therefore, responsive and proactive decision-making is key to creating superior and sustainable firm performance (Fischer et al., 2020).

Hypothesis 4a. Decision making has a positive effect on firm performance

Hypothesis 4b. Decision making mediates the relationship between enterprise risk management and firm performance

Hypothesis 4c. Decision making mediates the relationship between supply chain management and firm performance

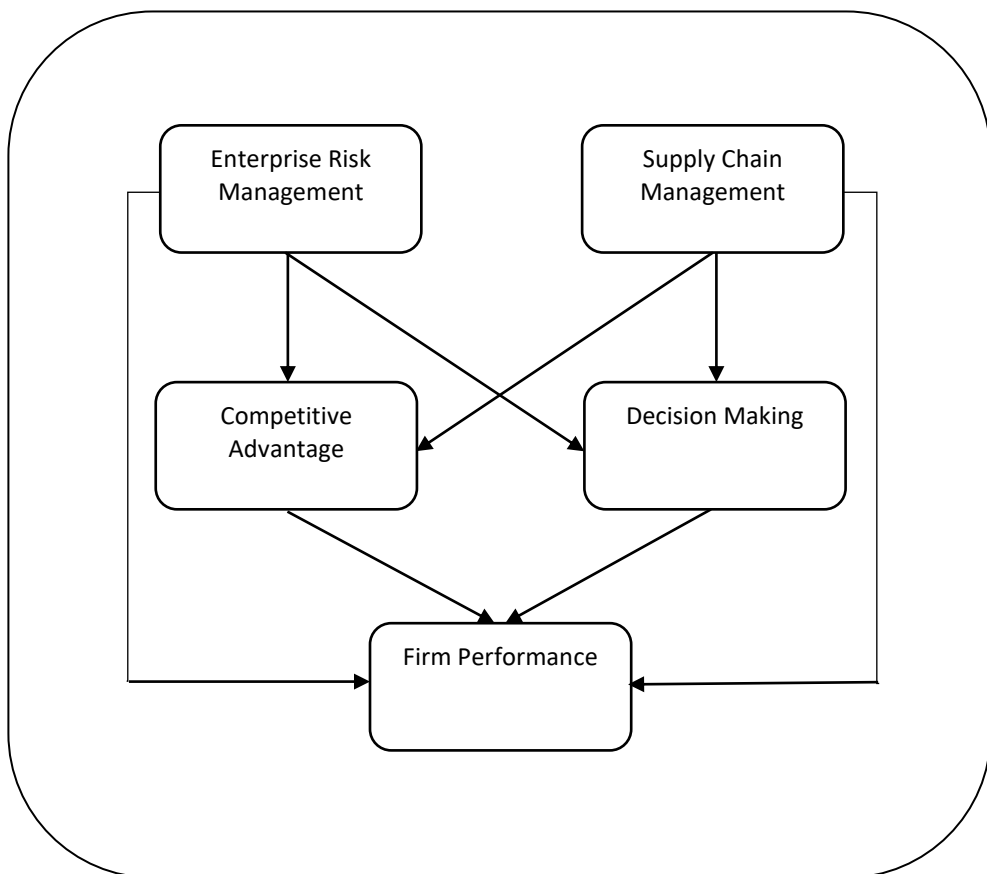


Figure 1. Theoretical Framework

Research Method

This study employs a quantitative research methodology approach adopted from Yang et al. (2018). Data collection is conducted through the distribution of questionnaires using an online platform designed with a Likert scale, where respondents are asked to assess statements on a scale ranging from 1 to 5 (disagree – strongly agree). The sample selection process utilizes random sampling, meaning each member of the population has an equal chance of being chosen as a respondent. The respondents in this study consist of managers and staff working in banks owned by State-Owned Enterprises (SOE/BUMN) in Indonesia. The number of samples that can be analyzed for this research is 263 samples. This number is obtained from a total of 400 questionnaires distributed to respondents, but only 279 were successfully collected, indicating a questionnaire return rate of 69.75%. Furthermore, there are 18 questionnaires that were not fully completed, so these questionnaires cannot be continued to the analysis stage. The data collection process took place from February 2023 to June 2023, providing a sufficient timeframe to obtain representative data. Once the data is collected, the analysis is carried out using Structural Equation Modeling (SEM) with the assistance of SmartPLS software. This method provides a statistical analysis framework to examine the relationships between variables in the research model. By combining Likert questionnaires, random sampling techniques, and SEM, this research aims to provide a deep understanding of the factors influencing company performance, specifically in State-Owned Banks in Indonesia. The results of the analysis are expected to

offer strategic insights and valuable policy recommendations for bank management and relevant stakeholders.

Research Result

This study explores the relationship between Enterprise Risk Management (ERM) and Supply Chain Management (SCM) as independent variables on firm performance. ERM, encompassing a holistic approach to risk management across the entire organization, and SCM, focusing on optimizing the supply chain, are identified as factors that may influence company performance. In this research, competitive advantage and decision making are positioned as mediating variables expected to bridge the influence of ERM and SCM on firm performance. Competitive advantage is believed to provide a competitive edge through the distinctive features of the company, while decision making is considered a key mediator in translating strategic decisions into outcomes that affect company performance. As for the Enterprise Risk Management (ERM) variable, it is measured using 4 indicators, while the Supply Chain Management (SCM) variable uses 5 indicators. The competitive advantage variable uses 3 indicators, decision making 2 indicators, and firm performance uses 3 indicators. Initial analysis is conducted to assess the relevance of the questionnaire questions used to measure the indicator's level, performed through the standard loading factor test. The minimum value required to conclude that the questionnaire questions used are relevant is > 0.6 . The results of the standard loading factor test are presented in Figure 2.

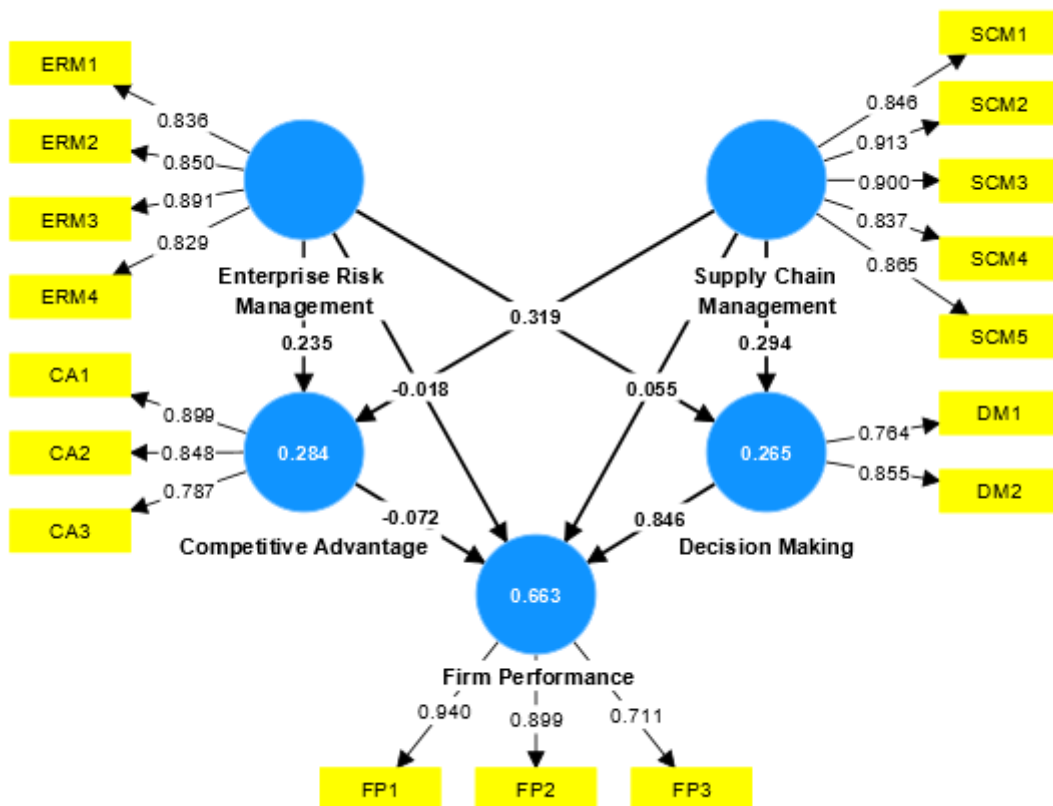


Figure 2. Analysis Results

The test results indicate that the 4 indicators used to measure the enterprise risk management variable, namely ERM1, obtained a standard loading factor value of 0.836, ERM2 at 0.850, ERM3 at 0.891, and ERM4 at 0.829. Furthermore, the five indicators measuring the supply chain management variable, namely SCM1, obtained a standard loading factor value of 0.846, SCM2 at 0.913, SCM3 at 0.900, SCM4 at 0.837, and SCM5 at 0.865. There are 3 indicators used to measure the competitive advantage variable. The standard loading factor values obtained are CA1 at 0.899, CA2 at 0.848, and CA3 at 0.787. The standard loading factor values obtained for the indicators measuring the decision-making variable are DM1 at 0.764 and DM2 at 0.855. The standard loading factor values obtained for the indicators measuring the firm performance variable are FP1 at 0.940, FP2 at 0.899, and FP3 at 0.711. More detailed results of the standard loading factor values obtained from each indicator can be seen in Table 1.

Table 1. Standard Loading Factor

Variable	Indicator	Std. Loading Factor
Enterprise Risk Management	ERM1	0.836
	ERM2	0.850
	ERM3	0.891
	ERM4	0.829
Supply Chain Management	SCM1	0.846

	SCM2	0.913
	SCM3	0.900
	SCM4	0.837
	SCM5	0.865
Competitive Advantage	CA1	0.899
	CA2	0.848
	CA3	0.787
Decision Making	DM1	0.764
	DM2	0.855
Firm Performance	FP1	0.940
	FP2	0.899
	FP3	0.711

In determining the level of reliability and validity of indicators in measuring latent variables, this study uses reliability testing and validity testing in its measurements. Reliability testing aims to assess the extent to which the measurement instrument can provide consistent results when repeated on the same subjects or objects. An instrument considered reliable means it is dependable and not significantly influenced by irrelevant or undesirable factors. In reliability testing, the composite reliability value serves as the baseline measure of how reliable indicators are in measuring latent variables. The minimum accepted composite reliability value to declare indicators reliable is 0.7. Validity testing, on the other hand, aims to assess the extent to which a measurement instrument or test truly measures the intended variable. Validity measures how effective and accurate an instrument is in measuring the intended variable. In validity testing, the level of validity of indicators is based on the Average Variance Extracted (AVE) values obtained. The minimum accepted AVE value to demonstrate that the indicators used have good validity is 0.6. Additionally, discriminant validity testing is used to provide further insight into the level of validity of indicators. In this study, discriminant validity testing (cross-loading) is employed, where the results provide a detailed overview of the values obtained from each indicator in measuring latent variables. The results of reliability and validity testing are presented in Table 2, while discriminant validity testing (cross-loading) is presented in Table 3.

Table 2. Reliability and Validity Testing

Variable	Composite reliability	Average variance extracted (AVE)
Enterprise Risk Management	0.914	0.725
Supply Chain Management	0.941	0.762
Competitive Advantage	0.883	0.716
Decision Making	0.793	0.657
Firm Performance	0.890	0.732

Table 3. Discriminant Validity (Cross Loading)

Variable	Enterprise Risk Management	Supply Chain Management	Competitive Advantage	Decision Making	Firm Performance
ERM1	0.836	0.326	0.272	0.330	0.253
ERM2	0.850	0.298	0.310	0.333	0.255
ERM3	0.891	0.454	0.417	0.489	0.427
ERM4	0.829	0.270	0.315	0.289	0.183
SCM1	0.310	0.846	0.392	0.290	0.226
SCM2	0.363	0.913	0.442	0.360	0.323
SCM3	0.336	0.900	0.369	0.355	0.335
SCM4	0.384	0.837	0.391	0.302	0.297
SCM5	0.388	0.865	0.505	0.495	0.405
CA1	0.293	0.450	0.899	0.633	0.487
CA2	0.267	0.423	0.848	0.557	0.457
CA3	0.448	0.364	0.787	0.577	0.420
DM1	0.477	0.470	0.784	0.764	0.458
DM2	0.262	0.247	0.394	0.855	0.824
FP1	0.308	0.274	0.471	0.795	0.940

FP2	0.285	0.304	0.506	0.725	0.899
FP3	0.316	0.419	0.405	0.535	0.711

The reliability test results for the enterprise risk management variable obtained a composite reliability value of 0.914. The supply chain management variable obtained a composite reliability value of 0.941. The composite reliability values obtained for the competitive advantage, decision making, and firm performance variables were 0.883, 0.793, and 0.890, respectively. The composite reliability values obtained for all these variables proved to be greater than 0.7. This indicates that the indicators used to measure each latent variable are reliable and have a high level of reliability. In terms of validity testing, the AVE values obtained for the enterprise risk management, supply chain management, competitive advantage, decision making, and firm performance variables were 0.725, 0.762, 0.716, 0.657, and 0.732, respectively. The AVE values obtained for all these variables are above 0.6, indicating that the indicators used to measure each latent variable have a good level of validity. Additionally, in Table 3, the discriminant validity testing (cross-loading) also proved successful, with the values obtained for each indicator being higher in measuring the measured latent variable compared to other variables (indicated in bold). After testing the indicators in measuring latent variables and accepting each test, hypothesis testing is conducted to measure the extent of the relationship between variables. In this study, there are both direct relationships and relationships that are not direct or through mediation. Hypotheses are considered accepted and have a significant influence, as evidenced by the T-statistic values exceeding 1.96 or p-values less than 0.05. The results of the hypothesis testing are presented in Figure 3 and in detail in Table 4.

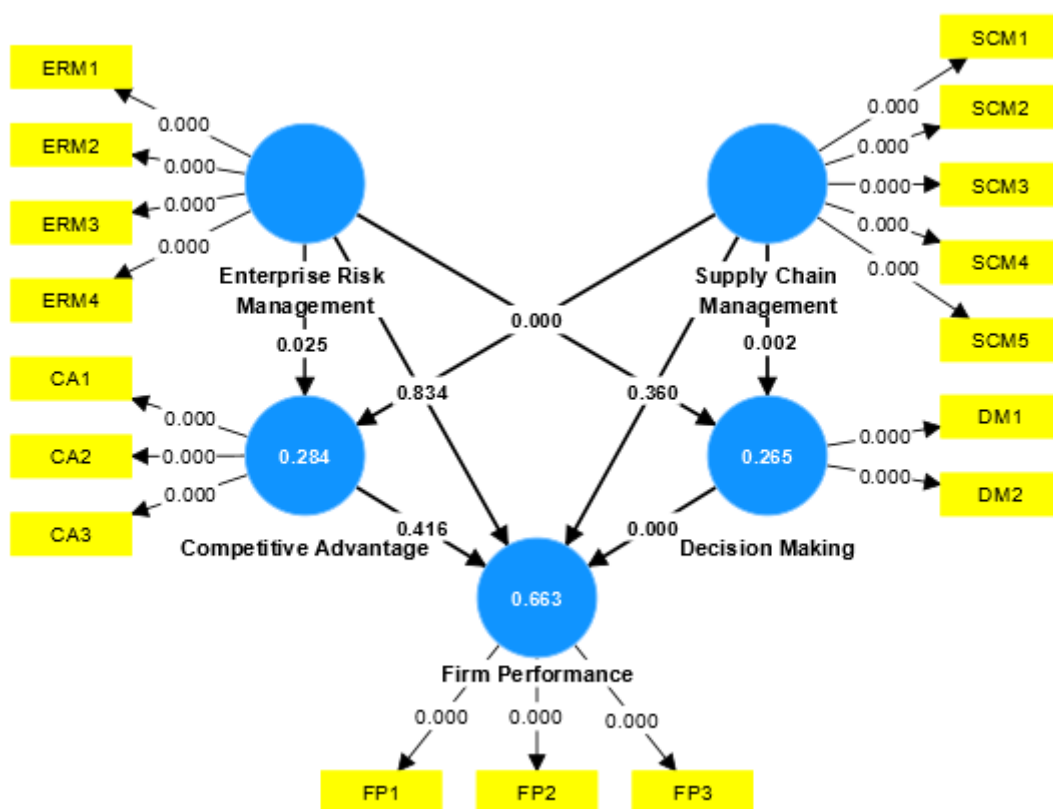


Figure 3. Path Coefficient

Table 4. Hypothesis Testing

	Hypothesis	T statistics	p-values	Information
H1a	Enterprise Risk Management -> Competitive Advantage	2.271	0.025	Significant
H1b	Enterprise Risk Management -> Decision Making	3.900	0.000	Significant
H1c	Enterprise Risk Management -> Firm Performance	0.210	0.834	Not Significant
H2a	Supply Chain Management -> Competitive Advantage	4.409	0.000	Significant
H2b	Supply Chain Management -> Decision Making	3.195	0.002	Significant
H2c	Supply Chain Management -> Firm Performance	0.920	0.360	Not Significant
H3a	Competitive Advantage -> Firm Performance	0.817	0.416	Not Significant
H3b	Enterprise Risk Management -> Competitive Advantage -> Firm Performance	0.718	0.474	Not Significant
H3c	Supply Chain Management -> Competitive Advantage -> Firm Performance	0.762	0.448	Not Significant
H4a	Decision Making -> Firm Performance	13.932	0.000	Significant
H4b	Enterprise Risk Management -> Decision Making -> Firm Performance	3.742	0.000	Significant

H4c	Supply Chain Management -> Decision Making -> Firm Performance	3.166	0.002	Significant
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In hypothesis 1a, the influence of enterprise risk management on competitive advantage obtained a T-statistic value of 2.271 (>1.96) and a p-value of 0.025 (< 0.05), meaning that this hypothesis is accepted as it has a significant effect. Hypothesis 2b, stating that enterprise risk management has an impact on decision making, is also accepted. This is evidenced by the T-statistic value of 3.900 and a p-value of 0.000. However, in hypothesis 1c, the influence of enterprise risk management on firm performance is not significant. This is because the T-statistic value obtained is only 0.210, and the p-value is 0.834. Moving on to hypothesis 2a, which states that supply chain management has an influence on competitive advantage, the T-statistic value is 4.409, and the p-value is 0.000. This indicates that the hypothesis is accepted, meaning it has a significant effect. Hypothesis 2b, the impact of supply chain management on decision making, also proves to have a significant effect, as evidenced by the T-statistic value of 3.195 and a p-value of 0.002. However, hypothesis 2c, stating that supply chain management has an impact on firm performance, is rejected because the T-statistic value obtained is only 0.920, and the p-value is 0.360.

Furthermore, hypothesis 3a, stating that competitive advantage affects firm performance, is rejected because the T-statistic value obtained is only 0.817, and the p-value is 0.416. As for hypotheses 3b and 3c, placing competitive advantage as a variable mediating the relationship between enterprise risk management and supply chain management on firm performance is also found to have no significant effect. This is evidenced by the T-statistic values obtained, which are 0.718 and 0.762, with p-values of 0.474 and 0.448, respectively. Thus, competitive advantage cannot mediate the relationship between enterprise risk management and supply chain management on firm performance, leading to the rejection of hypotheses 3b and 3c. Regarding hypothesis 4a, the impact of decision making on firm performance is proven to have a significant effect, as indicated by the T-statistic value of 13.932 and a p-value of 0.000. Furthermore, in hypotheses 4b and 4c, where decision making becomes a variable mediating the relationship between enterprise risk management and supply chain management on firm performance, also proves to have a significant effect. This is evidenced by the T-statistic values of 3.742 and 3.166, with p-values of 0.000 and 0.002, respectively.

Conclusion

The research findings conclude that the implementation of Enterprise Risk Management (ERM) significantly contributes to creating a competitive advantage and supports better decision-making in the financial institution studied. Although ERM does not directly impact firm performance, its role in creating a competitive advantage and supporting strategic decision-making through the mediator decision-making is crucial. Additionally, Supply Chain Management (SCM) has also been proven to have a significant positive impact on creating a competitive advantage and supporting better decision-making. However, the implementation of SCM does not directly affect firm performance, indicating that SCM's focus is more on optimizing the supply chain and creating a competitive advantage. Competitive advantage, while not having a direct influence on firm performance, remains a crucial element in attracting customer attention, enhancing loyalty, and building a positive image. On the other hand, decision-making has proven to have a significant positive impact on firm performance, reinforcing the argument that good decision-making plays a key role in a company's success. Corporate management, especially in the banking sector, can draw several important implications from this research. It is essential to understand that ERM and SCM have distinct roles, with ERM focusing more on holistic risk management, while SCM is more focused on optimizing the supply chain. Corporate strategies can be adjusted by emphasizing competitive advantage and effective decision-making. This research also provides recommendations for further studies, such as delving into additional factors influencing the relationships between variables or considering additional variables that may moderate these relationships. These conclusions form the basis for financial institutions, particularly banks, to optimize corporate strategies in the face of the continually evolving business environment.

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**ENTERPRISE RISK MANAGEMENT AND SUPPLY CHAIN MANAGEMENT: THE
MEDIATING ROLE OF COMPETITIVE ADVANTAGE AND DECISION MAKING IN
IMPROVING FIRMS PERFORMANCE**

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Abstract

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The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

Keywords: Enterprise Risk Management, Supply Chain Management, Competitive Advantage, Decision Making, Firm Performance

Introduction

Enterprise Risk Management (ERM) has experienced rapid development in response to the increasingly complex and dynamic business environment across various companies. ERM is a holistic approach that assists companies in identifying, assessing, managing, and monitoring all types of risks that can impact the achievement of corporate objectives (Shad et al., 2019). One of

the key factors driving the growth of ERM is the increased operational complexity and uncertainty in the global market. Sax & Andersen (2019) state that ERM enables companies to have a better understanding of risks and integrate risk management strategies into business decisions. Additionally, demands from stakeholders such as shareholders, regulators, and clients also compel companies to enhance the quality of corporate risk management. González et al. (2020) emphasize that the sustainability of a company and stakeholder trust heavily depends on the company's ability to manage risks effectively. ERM can help companies maintain corporate reputation, avoid significant financial losses, and ensure long-term sustainability. The development of information technology also plays a crucial role in advancing ERM (Dicuonzo et al., 2019). Sophisticated risk management systems and data analysis platforms assist companies in monitoring risks in real-time, making quick decisions, and proactively responding to changes in market conditions or other unforeseen events. In addition to the defensive aspects of risk management, ERM is also considered a strategic tool for creating value (Saeidi et al., 2019; Anton & Nucu, 2020). Companies successfully implementing ERM can identify risk opportunities that enhance performance and competitiveness. By understanding risk as part of the business strategy, companies can make smarter decisions to achieve long-term goals. The rapid development of enterprise risk management reflects the need for companies to be prepared to face the complex challenges and opportunities in the modern business era (Rehman & Anwar, 2019). 51

In the economic development of a country, financial institutions play a crucial role. The primary function of financial institutions involves allocating financial resources from those with surplus funds to those in need of funds for investment. By providing financial access, financial institutions enable companies and individuals to engage in economic activities such as production, investment, and consumption (Merton & Thakor, 2019; Sukmana et al., 2020). One key role of financial institutions is to provide credit to companies and individuals in need of funds. This credit can be used to finance large projects, expand operations, or innovate. Through the provision of credit, financial institutions support economic growth by providing financial support to sectors with the potential to create jobs and increase production (Park & Kim, 2020). Moreover, financial institutions also play a role in economic risk management. They offer various financial instruments, such as insurance and derivatives, which help companies manage risks associated with price fluctuations, currency, and interest rates. In this way, financial institutions provide economic stability and help prevent financial crises that can harm the overall economy (Chen et al., 2021; Huy et al., 2021).

Financial institutions also play a role in enhancing financial inclusion by providing financial access to a broader segment of society. This includes offering banking services to customers or clients who previously lacked access to formal financial systems (Yang et al., 2018; Pazarbasioglu et al., 2020). By improving financial inclusion, financial institutions can empower communities to manage their finances, enhance well-being, and support inclusive economic growth. The involvement of Enterprise Risk Management (ERM) in financial institutions is more crucial compared to companies in other sectors. The presence of ERM in financial institutions reflects not only risk management as an operational responsibility but also as an urgent necessity in a complex and fluctuating business environment (Chattha et al., 2020; Mhlanga, 2021). Because core activities of financial institutions, such as banking, involve financial intermediation and fund management, they are highly dependent on market trust and stability. Therefore, ERM becomes a critical foundation to ensure that financial institutions can identify, measure, and manage risks effectively. Financial institutions also face unique risks such as reputation and legal risks, which often take center stage in the company's ERM focus. Public trust in financial institutions heavily

relies on the company's ability to manage these risks wisely (Aljughaiman & Salama, 2019; Hummel et al., 2021; Saeidi et al., 2021).

Additionally, Supply Chain Management (SCM) also plays a central role in enhancing the performance of financial institutions. SCM helps financial institutions achieve higher operational efficiency by managing the supply chain optimally (Lee, 2021; Dharmayanti et al., 2023). Internal processes, such as transaction processing and information management, can be optimized to improve productivity and reduce operational costs. With SCM, a deep understanding of customer needs and effective management of the supply of various financial products and services drive the creation of more innovative and competitive solutions in the dynamic market (Marbun et al., 2020). Moreover, SCM contributes to customer satisfaction by ensuring consistent service availability and providing a quick response to customer demands (Abdirad & Krishnan, 2022). Furthermore, SCM enables financial institutions to be more responsive to changes in the market. Effective monitoring of changes in the economic and regulatory environment allows financial institutions to adjust their supply and operational strategies more quickly and efficiently (Lam et al., 2019; Sukati et al., 2020). Many previous studies have analyzed the influence of Enterprise Risk Management (ERM) and Supply Chain Management (SCM) on firm performance. However, there is still limited research that analyzes both simultaneously and uses competitive advantage and decision-making factors as mediating variables, especially in companies in the financial sector. Thus, this study aims to fill this gap by examining the influence of ERM and SCM on firm performance using competitive advantage and decision-making variables as mediating factors.

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Literature Review

The purpose of Enterprise Risk Management (ERM) is to create a better understanding of the risks faced by a company and to ensure that business strategies align with the established risk tolerance (Tan & Lee, 2022). ERM involves a series of processes, including risk identification, risk assessment, development of risk management strategies, implementation of risk management measures, and continuous monitoring and review. One of the main advantages of ERM is its ability to respond to the changing dynamics of the business environment, enabling companies to identify and respond to new or evolving risks over time (Yang et al., 2018; Jankensgård, 2019; Ricardianto et al., 2023). ERM helps companies identify, assess, and manage potential risks that can affect corporate performance. By comprehensively understanding risks, companies can design more adaptive and responsive strategies to changes in market conditions (Jankensgård, 2019). ERM also provides an advantage by offering resilience to risks. Companies that can manage risks effectively can avoid significant financial losses, protect corporate reputation, and maintain stakeholder trust. Thus, ERM not only reduces the potential for losses but also creates a more robust foundation for long-term growth and business sustainability (Ching et al., 2020; Olaniyi et al., 2023).

The integrated ERM process provides more comprehensive information to decision-makers. Accurate risk data and analysis assist in identifying opportunities and addressing challenges more effectively (Crovini et al., 2021). Therefore, companies implementing ERM can make smarter strategic decisions and optimize resource allocation according to long-term business goals. ERM is not just an approach to risk management; it is a key element in achieving sustainable corporate objectives. Hristov et al. (2022) assert that by implementing ERM, companies can identify and manage potential risks that can affect the achievement of strategic corporate goals. One way ERM contributes to firm performance is through the management of financial risk. By designing effective financial risk management strategies, companies can protect their asset values, optimize financial performance, and create stability in changing market conditions.

- 4
- Hypothesis 1a. Enterprise risk management has a positive effect on competitive advantage
Hypothesis 1b. Enterprise risk management has a positive effect on decision making
Hypothesis 1c. Enterprise risk management has a positive effect on firm performance

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Meanwhile, Supply Chain Management (SCM) is a strategic approach to plan, manage, and coordinate all activities involved in the supply chain of products or services, from raw material procurement to the distribution of end products to consumers (Khan et al., 2019). SCM is designed to improve operational efficiency, reduce costs, and enhance customer satisfaction through the integrated management of all business processes involved in the movement of products or services. The success of SCM can provide several benefits, including improved operational efficiency, inventory cost reduction, increased responsiveness to market demand, and enhanced customer satisfaction (Madhani, 2019; Negi, 2021). Furthermore, SCM can enhance the flexibility and resilience of the supply chain, enabling companies to be more responsive to changes in market needs or external conditions. The importance of SCM continues to grow with the complexity of globalization and the acceleration of technology. Companies that successfully implement SCM can leverage competitive advantages, accelerate time-to-market, and create added value for their customers (Haddouch et al., 2019; Cahyono et al., 2023).

Improved operational efficiency, cost reduction, and increased timeliness can give companies a competitive edge in terms of pricing and services, creating higher competitiveness in the market. SCM also has a direct impact on business decisions by providing accurate and real-time information about the entire supply chain (Keskin et al., 2021). Data management and SCM analysis can help companies better understand the dynamics of supply and demand. Additionally, SCM plays a key role in addressing the challenges and opportunities of globalization. Decisions related to sourcing, production location, and transportation can affect costs and delivery times, significantly impacting competitiveness in the global market (Yang et al., 2018; Pasi et al., 2020). In terms of financial performance, SCM can also make a positive contribution. The selection of service providers, inventory management, and effective supply chain risk management can reduce operational costs and financial risks, positively impacting net income and profitability. SCM also supports product innovation and differentiation (Lam et al., 2019; Lee, 2021). By understanding customer needs and collaborating with business partners in the supply chain, companies can produce more innovative products that meet consumer expectations. Product innovation and differentiation can be key factors in creating competitive advantages and enhancing a company's performance in the market (Abdirad & Krishnan, 2022).

- 4
- Hypothesis 2a. Supply chain management has a positive effect on competitive advantage
Hypothesis 2b. Supply chain management has a positive effect on decision making
Hypothesis 2c. Supply chain management has a positive effect on firm performance

Competitive advantage encompasses a set of factors or characteristics that differentiate a company from its competitors, provide added value to customers, and give the company a stronger position in the market. By offering something unique or superior to competitors, a company can attract customer attention and build loyalty (Hidayatullah et al., 2019; Annarelli et al., 2020). This differentiation not only creates added value for customers but can also support higher pricing, increase profit margins, and ultimately enhance the financial performance of the company. Saeidi et al. (2019) state that competitive advantage also plays a role in attracting investments and talent.

Companies with a strong competitive advantage become more attractive to investors due to higher potential for long-term growth and profits. Additionally, having a competitive advantage can help a company attract and retain the best talent in the industry because employees tend to be drawn to successful and innovative companies (Cahyono et al., 2023). Companies can use this advantage as a foundation to develop growth strategies, enter new markets, or innovate in products or services. The ability to leverage competitive advantage effectively in strategic decision-making can help a company maintain its position in the market and improve its performance (Azeem et al., 2021).

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Hypothesis 3a. Competitive advantage has a positive effect on firm performance

Hypothesis 3b. Competitive advantage mediates the relationship between enterprise risk management and firm performance

Hypothesis 3c. Competitive advantage mediates the relationship between supply chain management and firm performance

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Correct business decisions play a central role in creating company performance. An effective decision-making process can guide the company toward achieving its business goals. Good decisions can help the company identify growth opportunities (Awan et al., 2021). By analyzing the market, industry trends, and customer needs, a company can make strategic decisions that support the development of new products, market expansion, or business portfolio diversification. Good decisions in resource allocation and risk management can contribute significantly to company performance (Dos Santos et al., 2019; Crovini et al., 2021). Efficient fund management, investment balancing, and a good understanding of risks can minimize potential losses and enhance the financial stability of the company. Decisions related to capital structure and investment can impact profitability and long-term growth. Furthermore, business decisions also play a crucial role in building the company's reputation. Ethical decisions, corporate social responsibility, and consistent product or service quality can build customer trust and a positive image in the market (Hristov et al., 2022). A good reputation can strengthen the company's brand, increase customer loyalty, and overall support long-term performance. Decisions related to innovation and adaptation to changes in the business environment can ensure that the company remains relevant and competitive in a continually evolving market. Therefore, responsive and proactive decision-making is key to creating superior and sustainable firm performance (Fischer et al., 2020).

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Hypothesis 4a. Decision making has a positive effect on firm performance

Hypothesis 4b. Decision making mediates the relationship between enterprise risk management and firm performance

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Hypothesis 4c. Decision making mediates the relationship between supply chain management and firm performance

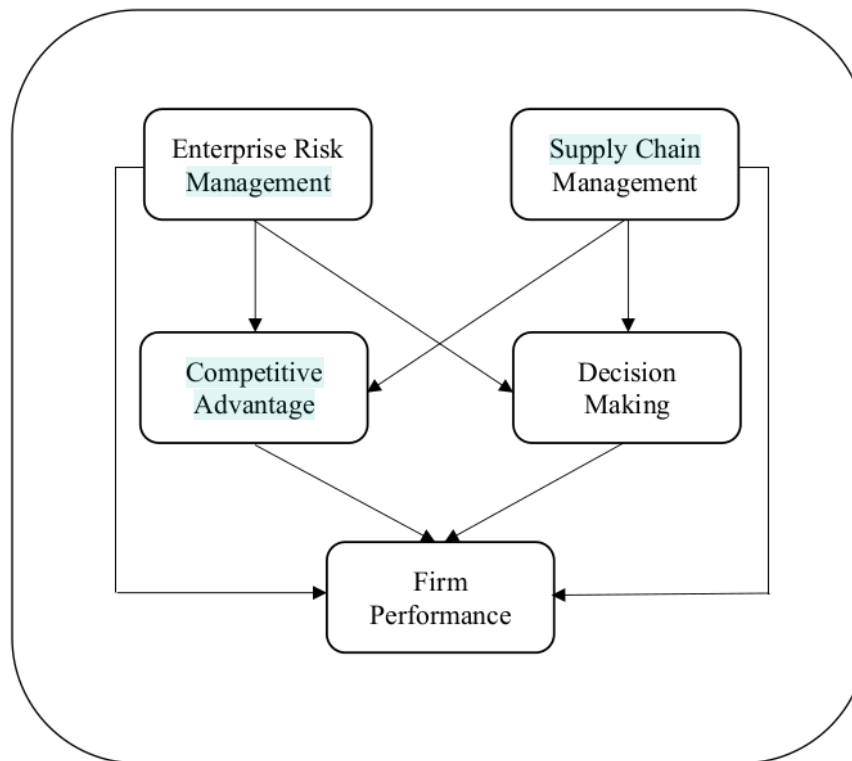


Figure 1. Theoretical Framework

Research Method

This study employs a quantitative research methodology approach adopted from Yang et al. (2018). Data collection is conducted through the distribution of questionnaires using an online platform designed with a Likert scale, where respondents are asked to assess statements on a scale ranging from 1 to 5 (disagree – strongly agree). The sample selection process utilizes random sampling, meaning each member of the population has an equal chance of being chosen as a respondent. The respondents in this study consist of managers and staff working in banks owned by State-Owned Enterprises (SOE/BUMN) in Indonesia. The number of samples that can be analyzed for this research is 263 samples. This number is obtained from a total of 400 questionnaires distributed to respondents, but only 279 were successfully collected, indicating a questionnaire return rate of 69.75%. Furthermore, there are 18 questionnaires that were not fully completed, so these questionnaires cannot be continued to the analysis stage. The data collection process took place from February 2023 to June 2023, providing a sufficient timeframe to obtain representative data. Once the data is collected, the analysis is carried out using Structural Equation Modeling (SEM) with the assistance of SmartPLS software. This method provides a statistical analysis framework to examine the relationships between variables in the research model. By combining Likert questionnaires, random sampling techniques, and SEM, this research aims to provide a deep understanding of the factors influencing company performance, specifically in State-Owned Banks in Indonesia. The results of the analysis are expected to offer strategic insights and valuable policy recommendations for bank management and relevant stakeholders.

Research Result

This study explores the relationship between Enterprise Risk Management (ERM) and Supply Chain Management (SCM) as independent variables on firm performance. ERM, encompassing a holistic approach to risk management across the entire organization, and SCM, focusing on optimizing the supply chain, are identified as factors that may influence company performance. In this research, competitive advantage and decision making are positioned as mediating variables expected to bridge the influence of ERM and SCM on firm performance. Competitive advantage is believed to provide a competitive edge through the distinctive features of the company, while decision making is considered a key mediator in translating strategic decisions into outcomes that affect company performance. As for the Enterprise Risk Management (ERM) variable, it is measured using 4 indicators, while the Supply Chain Management (SCM) variable uses 5 indicators. The competitive advantage variable uses 3 indicators, decision making uses 2 indicators, and firm performance uses 3 indicators. Initial analysis is conducted to assess the relevance of the questionnaire questions used to measure the indicator's level, performed through the standard loading factor test. The minimum value required to conclude that the questionnaire questions used are relevant is > 0.6 . The results of the standard loading factor test are presented in Figure 2.

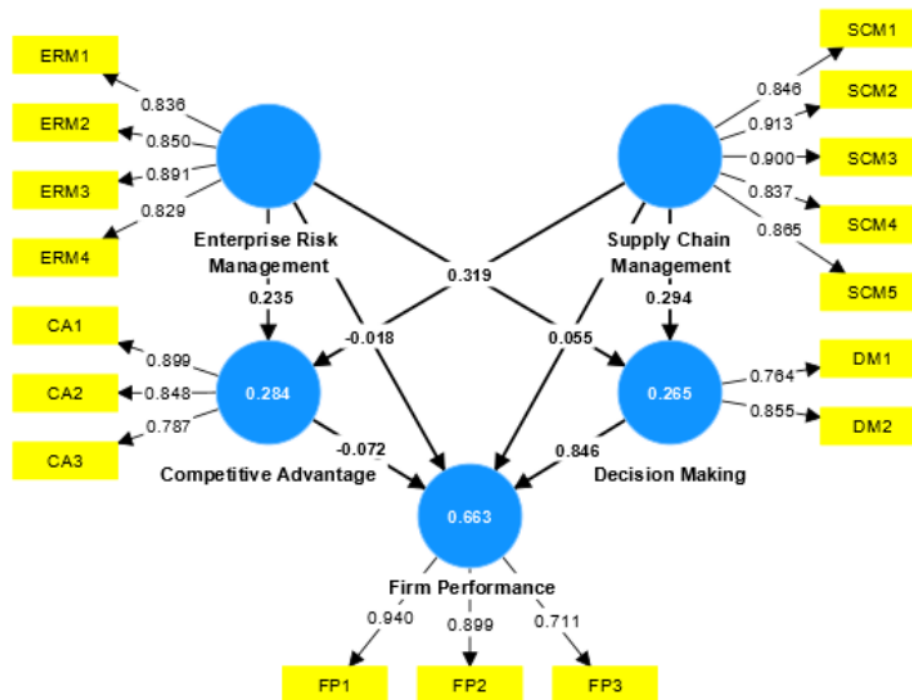


Figure 2. Analysis Results

The test results indicate that the 4 indicators used to measure the enterprise risk management variable, namely ERM1, obtained a standard loading factor value of 0.836, ERM2 at 0.850, ERM3 at 0.891, and ERM4 at 0.829. Furthermore, the five indicators measuring the supply chain management variable, namely SCM1, obtained a standard loading factor value of 0.846,

SCM2 at 0.913, SCM3 at 0.900, SCM4 at 0.837, and SCM5 at 0.865. There are 3 indicators used to measure the competitive advantage variable. The standard loading factor values obtained are CA1 at 0.899, CA2 at 0.848, and CA3 at 0.787. The standard loading factor values obtained for the indicators measuring the decision-making variable are DM1 at 0.764 and DM2 at 0.855. The standard loading factor values obtained for the indicators measuring the firm performance variable are FP1 at 0.940, FP2 at 0.899, and FP3 at 0.711. More detailed results of the standard loading factor values obtained from each indicator can be seen in Table 1.

Table 1. Standard Loading Factor

Variable	Indicator	Std. Loading Factor
Enterprise Risk Management	ERM1	0.836
	ERM2	0.850
	ERM3	0.891
	ERM4	0.829
Supply Chain Management	SCM1	0.846
	SCM2	0.913
	SCM3	0.900
	SCM4	0.837
	SCM5	0.865
Competitive Advantage	CA1	0.899
	CA2	0.848
	CA3	0.787
Decision Making	DM1	0.764
	DM2	0.855
Firm Performance	FP1	0.940
	FP2	0.899
	FP3	0.711

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In determining the level of reliability and validity of indicators in measuring latent variables, this study uses reliability testing and validity testing in its measurements. Reliability testing aims to assess the extent to which the measurement instrument can provide consistent results when repeated on the same subjects or objects. An instrument considered reliable means it is dependable and not significantly influenced by irrelevant or undesirable factors. In reliability testing, the composite reliability value serves as the baseline measure of how reliable indicators are in measuring latent variables. The minimum accepted composite reliability value to declare indicators reliable is 0.7. Validity testing, on the other hand, aims to assess the extent to which a measurement instrument or test truly measures the intended variable. Validity measures how effective and accurate an instrument is in measuring the intended variable. In validity testing, the level of validity of indicators is based on the Average Variance Extracted (AVE) values obtained. The minimum accepted AVE value to demonstrate that the indicators used have good validity is 0.6. Additionally, discriminant validity testing is used to provide further insight into the level of validity of indicators. In this study, discriminant validity testing (cross-loading) is employed, where the results provide a detailed overview of the values obtained from each indicator in

measuring latent variables. The results of reliability and validity testing are presented in Table 2, while discriminant validity testing (cross-loading) is presented in Table 3.

Table 2. Reliability and Validity Testing

Variable	Composite reliability	Average variance extracted (AVE)
Enterprise Risk Management	0.914	0.725
Supply Chain Management	0.941	0.762
Competitive Advantage	0.883	0.716
Decision Making	0.793	0.657
Firm Performance	0.890	0.732

Table 3. Discriminant Validity (Cross Loading)

Variable	Enterprise Risk Management	Supply Chain Management	Competitive Advantage	Decision Making	Firm Performance
ERM1	0.836	0.326	0.272	0.330	0.253
ERM2	0.850	0.298	0.310	0.333	0.255
ERM3	0.891	0.454	0.417	0.489	0.427
ERM4	0.829	0.270	0.315	0.289	0.183
SCM1	0.310	0.846	0.392	0.290	0.226
SCM2	0.363	0.913	0.442	0.360	0.323
SCM3	0.336	0.900	0.369	0.355	0.335
SCM4	0.384	0.837	0.391	0.302	0.297
SCM5	0.388	0.865	0.505	0.495	0.405
CA1	0.293	0.450	0.899	0.633	0.487
CA2	0.267	0.423	0.848	0.557	0.457
CA3	0.448	0.364	0.787	0.577	0.420
DM1	0.477	0.470	0.784	0.764	0.458
DM2	0.262	0.247	0.394	0.855	0.824
FP1	0.308	0.274	0.471	0.795	0.940
FP2	0.285	0.304	0.506	0.725	0.899
FP3	0.316	0.419	0.405	0.535	0.711

The reliability test results for the enterprise risk management variable obtained a composite reliability value of 0.914. The supply chain management variable obtained a composite reliability value of 0.941. The composite reliability values obtained for the competitive advantage, decision making, and firm performance variables were 0.883, 0.793, and 0.890, respectively. The composite reliability values obtained for all these variables proved to be greater than 0.7. This indicates that the indicators used to measure each latent variable are reliable and have a high level of reliability. In terms of validity testing, the AVE values obtained for the enterprise risk management, supply chain management, competitive advantage, decision making, and firm performance variables were

0.725, 0.762, 0.716, 0.657, and 0.732, respectively. The AVE values obtained for all these variables are above 0.6, indicating that the indicators used to measure each latent variable have a good level of validity. Additionally, in Table 3, the discriminant validity testing (cross-loading) also proved successful, with the values obtained for each indicator being higher in measuring the measured latent variable compared to other variables (indicated in bold). After testing the indicators in measuring latent variables and accepting each test, hypothesis testing is conducted to measure the extent of the relationship between variables. In this study, there are both direct relationships and relationships that are not direct or through mediation. Hypotheses are considered accepted and have a significant influence, as evidenced by the T-statistic values exceeding 1.96 or p-values less than 0.05. The results of the hypothesis testing are presented in Figure 3 and in detail in Table 4.

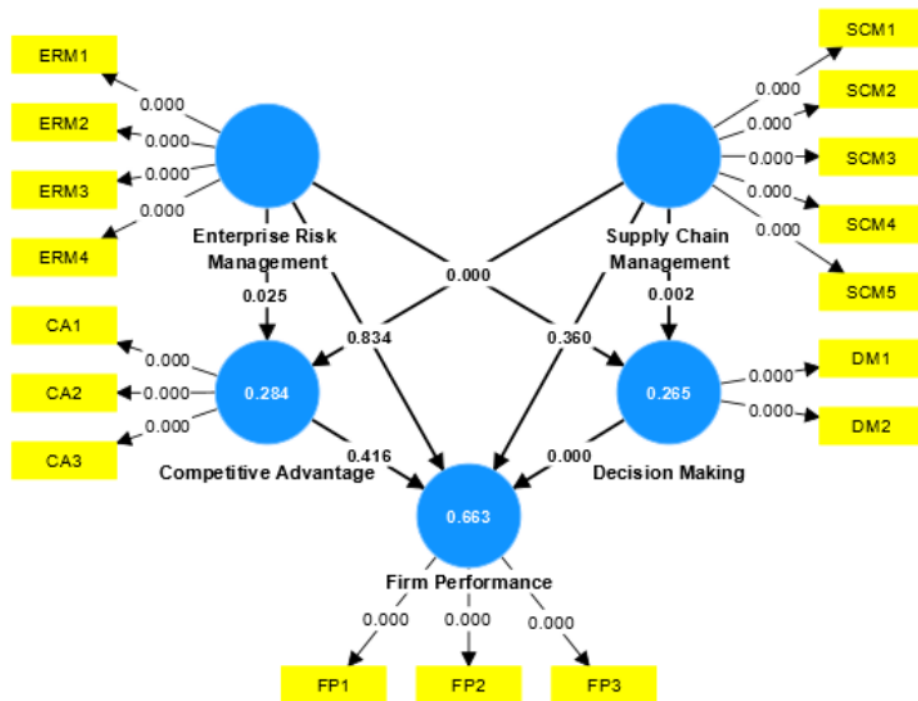


Figure 3. Path Coefficient

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Table 4. Hypothesis Testing

	Hypothesis	T statistics	p-values	Information
H1a	Enterprise Risk Management -> Competitive Advantage	2.271	0.025	Significant
H1b	Enterprise Risk Management -> Decision Making	3.900	0.000	Significant
H1c	Enterprise Risk Management -> Firm Performance	0.210	0.834	Not Significant
H2a	Supply Chain Management -> Competitive Advantage	4.409	0.000	Significant
H2b	Supply Chain Management -> Decision Making	3.195	0.002	Significant
H2c	Supply Chain Management -> Firm Performance	0.920	0.360	Not Significant
H3a	Competitive Advantage -> Firm Performance	0.817	0.416	Not Significant
H3b	Enterprise Risk Management -> Competitive Advantage -> Firm Performance	0.718	0.474	Not Significant

H3c	Supply Chain Management -> Competitive Advantage -> Firm Performance	0.762	0.448	Not Significant
H4a	Decision Making -> Firm Performance	13.932	0.000	Significant
H4b	Enterprise Risk Management -> Decision Making -> Firm Performance	3.742	0.000	Significant
H4c	Supply Chain Management -> Decision Making -> Firm Performance	3.166	0.002	Significant

In hypothesis 1a, the influence of enterprise risk management on competitive advantage obtained a T-statistic value of 2.271 (>1.96) and a p-value of 0.025 (< 0.05), meaning that this hypothesis is accepted as it has a significant effect. Hypothesis 2b, stating that enterprise risk management has an impact on decision making, is also accepted. This is evidenced by the T-statistic value of 3.900 and a p-value of 0.000. However, in hypothesis 1c, the influence of enterprise risk management on firm performance is not significant. This is because the T-statistic value obtained is only 0.210, and the p-value is 0.834. Moving on to hypothesis 2a, which states that supply chain management has an influence on competitive advantage, the T-statistic value is 4.409, and the p-value is 0.000. This indicates that the hypothesis is accepted, meaning it has a significant effect. Hypothesis 2b, the impact of supply chain management on decision making, also proves to have a significant effect, as evidenced by the T-statistic value of 3.195 and a p-value of 0.002. However, hypothesis 2c, stating that supply chain management has an impact on firm performance, is rejected because the T-statistic value obtained is only 0.920, and the p-value is 0.360.

Furthermore, hypothesis 3a, stating that competitive advantage affects firm performance, is rejected because the T-statistic value obtained is only 0.817, and the p-value is 0.416. As for hypotheses 3b and 3c, placing competitive advantage as a variable mediating the relationship between enterprise risk management and supply chain management on firm performance is also found to have no significant effect. This is evidenced by the T-statistic values obtained, which are 0.718 and 0.762, with p-values of 0.474 and 0.448, respectively. Thus, competitive advantage cannot mediate the relationship between enterprise risk management and supply chain management on firm performance, leading to the rejection of hypotheses 3b and 3c. Regarding hypothesis 4a, the impact of decision making on firm performance is proven to have a significant effect, as indicated by the T-statistic value of 13.932 and a p-value of 0.000. Furthermore, in hypotheses 4b and 4c, where decision making becomes a variable mediating the relationship between enterprise risk management and supply chain management on firm performance, also proves to have a significant effect. This is evidenced by the T-statistic values of 3.742 and 3.166, with p-values of 0.000 and 0.002, respectively.

Conclusion

The research findings conclude that the implementation of Enterprise Risk Management (ERM) significantly contributes to creating a competitive advantage and supports better decision-making in the financial institution studied. Although ERM does not directly impact firm performance, its role in creating a competitive advantage and supporting strategic decision-making through the mediator decision-making is crucial. Additionally, Supply Chain Management (SCM) has also been proven to have a significant positive impact on creating a competitive advantage and supporting better decision-making. However, the implementation of SCM does not directly affect firm performance, indicating that SCM's focus is more on optimizing the supply chain and creating a competitive advantage. Competitive advantage, while not having a direct influence on firm

performance, remains a crucial element in attracting customer attention, enhancing loyalty, and building a positive image. On the other hand, decision-making has proven to have a significant positive impact on firm performance, reinforcing the argument that good decision-making plays a key role in a company's success. Corporate management, especially in the banking sector, can draw several important implications from this research. It is essential to understand that ERM and SCM have distinct roles, with ERM focusing more on holistic risk management, while SCM is more focused on optimizing the supply chain. Corporate strategies can be adjusted by emphasizing competitive advantage and effective decision-making. This research also provides recommendations for further studies, such as delving into additional factors influencing the relationships between variables or considering additional variables that may moderate these relationships. These conclusions form the basis for financial institutions, particularly banks, to optimize corporate strategies in the face of the continually evolving business environment.

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Enterprise risk management and supply chain management: The mediating role of competitive advantage and decision making in improving firms performance

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ABSTRACT

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The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

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1. Introduction

Enterprise Risk Management (ERM) has experienced rapid development in response to the increasingly complex and dynamic business environment across various companies. ERM is a holistic approach that assists companies in identifying, assessing, managing, and monitoring all types of risks that can impact the achievement of corporate objectives (Shad et al., 2019). One of the key factors driving the growth of ERM is the increased operational complexity and uncertainty in the global market. Sax & Andersen (2019) state that ERM enables companies to have a better understanding of risks and integrate risk management strategies into business decisions. Additionally, demands from stakeholders such as shareholders, regulators, and clients also compel companies to enhance the quality of corporate risk management. González et al. (2020) emphasize that the sustainability of a company and stakeholder trust heavily depends on the company's ability to manage risks effectively. ERM can help companies maintain corporate reputation, avoid significant financial losses, and ensure long-term sustainability.

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The development of information technology also plays a crucial role in advancing ERM (Dicuonzo et al., 2019). Sophisticated risk management systems and data analysis platforms assist companies in monitoring risks in real-time, making quick decisions, and proactively responding to changes in market conditions or other unforeseen events. In addition to the defensive aspects of risk management, ERM is also considered a strategic tool for creating value (Saeidi et al., 2019; Anton & Nucu, 2020). Companies successfully implementing ERM can identify risk opportunities that enhance performance and competitiveness. By understanding risk as part of the business strategy, companies can make smarter decisions to achieve long-term goals. The rapid development of enterprise risk management reflects the need for companies to be prepared to face the complex challenges and opportunities in the modern business era (Rehman & Anwar, 2019).

In the economic development of a country, financial institutions play a crucial role. The primary function of financial institutions involves allocating financial resources from those with surplus funds to those in need of funds for investment. By providing financial access, financial institutions enable companies and individuals to engage in economic activities such as production, investment, and consumption (Merton & Thakor, 2019; Sukmana et al., 2020). One key role of financial institutions is to provide credit to companies and individuals in need of funds. This credit can be used to finance large projects, expand operations, or innovate. Through the provision of credit, financial institutions support economic growth by providing financial support to sectors with the potential to create jobs and increase production (Park & Kim, 2020). Moreover, financial institutions also play a role in economic risk management. They offer various financial instruments, such as insurance and derivatives, which help companies manage risks associated with price fluctuations, currency, and interest rates. In this way, financial institutions provide economic stability and help prevent financial crises that can harm the overall economy (Chen et al., 2021; Huy et al., 2021).

Financial institutions also play a role in enhancing financial inclusion by providing financial access to a broader segment of society. This includes offering banking services to customers or clients who previously lacked access to formal financial systems (Yang et al., 2018; Pazarbasioglu et al., 2020). By improving financial inclusion, financial institutions can empower communities to manage their finances, enhance well-being, and support inclusive economic growth. The involvement of Enterprise Risk Management (ERM) in financial institutions is more crucial compared to companies in other sectors. The presence of ERM in financial institutions reflects not only risk management as an operational responsibility but also as an urgent necessity in a complex and fluctuating business environment (Chattha et al., 2020; Mhlanga, 2021). Because core activities of financial institutions, such as banking, involve financial intermediation and fund management, they are highly dependent on market trust and stability. Therefore, ERM becomes a critical foundation to ensure that financial institutions can identify, measure, and manage risks effectively. Financial institutions also face unique risks such as reputation and legal risks, which often take center stage in the company's ERM focus. Public trust in financial institutions heavily relies on the company's ability to manage these risks wisely (Aljughaiman & Salama, 2019; Hummel et al., 2021; Saeidi et al., 2021).

Additionally, Supply Chain Management (SCM) also plays a central role in enhancing the performance of financial institutions. SCM helps financial institutions achieve higher operational efficiency by managing the supply chain optimally (Lee, 2021; Dharmayanti et al., 2023). Internal processes, such as transaction processing and information management, can be optimized to improve productivity and reduce operational costs. With SCM, a deep understanding of customer needs and effective management of the supply of various financial products and services drive the creation of more innovative and competitive solutions in the dynamic market (Marbun et al., 2020). Moreover, SCM contributes to customer satisfaction by ensuring consistent service availability and providing a quick response to customer demands (Abdirad & Krishnan, 2022). Furthermore, SCM enables financial institutions to be more responsive to changes in the market. Effective monitoring of changes in the economic and regulatory environment allows financial institutions to adjust their supply and operational strategies more quickly and efficiently (Lam et al., 2019; Sukati et al., 2020). Many previous studies have analyzed the influence of Enterprise Risk Management (ERM) and Supply Chain Management (SCM) on firm performance. However, there is still limited research that analyzes both simultaneously and uses competitive advantage and decision-making factors as mediating variables, especially in companies in the financial sector. Thus, this study aims to fill this gap by examining the influence of ERM and SCM on firm performance using competitive advantage and decision-making variables as mediating factors.

2. Literature Review

The purpose of Enterprise Risk Management (ERM) is to create a better understanding of the risks faced by a company and to ensure that business strategies align with the established risk tolerance (Tan & Lee, 2022). ERM involves a series of processes, including risk identification, risk assessment, development of risk management strategies, implementation of risk management measures, and continuous monitoring and review. One of the main advantages of ERM is its ability to respond to the changing dynamics of the business environment, enabling companies to identify and respond to new or evolving risks over time (Yang et al., 2018; Jankensgård, 2019; Ricardianto et al., 2023). ERM helps companies identify, assess, and manage potential risks that can affect corporate performance. By comprehensively understanding risks, companies can design more adaptive and responsive strategies to changes in market conditions (Jankensgård, 2019). ERM also provides an advantage by offering resilience to risks. Companies that can manage risks effectively can avoid significant financial losses, protect

corporate reputation, and maintain stakeholder trust. Thus, ERM not only reduces the potential for losses but also creates a more robust foundation for long-term growth and business sustainability (Ching et al., 2020; Olaniyi et al., 2023).

The integrated ERM process provides more comprehensive information to decision-makers. Accurate risk data and analysis assist in identifying opportunities and addressing challenges more effectively (Crovini et al., 2021). Therefore, companies implementing ERM can make smarter strategic decisions and optimize resource allocation according to long-term business goals. ERM is not just an approach to risk management; it is a key element in achieving sustainable corporate objectives. Hristov et al. (2022) assert that by implementing ERM, companies can identify and manage potential risks that can affect the achievement of strategic corporate goals. One way ERM contributes to firm performance is through the management of financial risk. By designing effective financial risk management strategies, companies can protect their asset values, optimize financial performance, and create stability in changing market conditions.

Hypothesis 1a. *Enterprise risk management has a positive effect on competitive advantage.*

Hypothesis 1b. *Enterprise risk management has a positive effect on decision making.*

Hypothesis 1c. *Enterprise risk management has a positive effect on firm performance.*

Meanwhile, Supply Chain Management (SCM) is a strategic approach to plan, manage, and coordinate all activities involved in the supply chain of products or services, from raw material procurement to the distribution of end products to consumers (Khan et al., 2019). SCM is designed to improve operational efficiency, reduce costs, and enhance customer satisfaction through the integrated management of all business processes involved in the movement of products or services. The success of SCM can provide several benefits, including improved operational efficiency, inventory cost reduction, increased responsiveness to market demand, and enhanced customer satisfaction (Madhani, 2019; Negi, 2021). Furthermore, SCM can enhance the flexibility and resilience of the supply chain, enabling companies to be more responsive to changes in market needs or external conditions. The importance of SCM continues to grow with the complexity of globalization and the acceleration of technology. Companies that successfully implement SCM can leverage competitive advantages, accelerate time-to-market, and create added value for their customers (Haddouch et al., 2019; Cahyono et al., 2023).

Improved operational efficiency, cost reduction, and increased timeliness can give companies a competitive edge in terms of pricing and services, creating higher competitiveness in the market. SCM also has a direct impact on business decisions by providing accurate and real-time information about the entire supply chain (Keskin et al., 2021). Data management and SCM analysis can help companies better understand the dynamics of supply and demand. Additionally, SCM plays a key role in addressing the challenges and opportunities of globalization. Decisions related to sourcing, production location, and transportation can affect costs and delivery times, significantly impacting competitiveness in the global market (Yang et al., 2018; Pasi et al., 2020). In terms of financial performance, SCM can also make a positive contribution. The selection of service providers, inventory management, and effective supply chain risk management can reduce operational costs and financial risks, positively impacting net income and profitability. SCM also supports product innovation and differentiation (Lam et al., 2019; Lee, 2021). By understanding customer needs and collaborating with business partners in the supply chain, companies can produce more innovative products that meet consumer expectations. Product innovation and differentiation can be key factors in creating competitive advantages and enhancing a company's performance in the market (Abdirad & Krishnan, 2022).

Hypothesis 2a. *Supply chain management has a positive effect on competitive advantage.*

Hypothesis 2b. *Supply chain management has a positive effect on decision making.*

Hypothesis 2c. *Supply chain management has a positive effect on firm performance.*

Competitive advantage encompasses a set of factors or characteristics that differentiate a company from its competitors, provide added value to customers, and give the company a stronger position in the market. By offering something unique or superior to competitors, a company can attract customer attention and build loyalty (Hidayatullah et al., 2019; Annarelli et al., 2020). This differentiation not only creates added value for customers but can also support higher pricing, increase profit margins, and ultimately enhance the financial performance of the company. Saeidi et al. (2019) state that competitive advantage also plays a role in attracting investments and talent. Companies with a strong competitive advantage become more attractive to investors due to higher potential for long-term growth and profits. Additionally, having a competitive advantage can help a company attract and retain the best talent in the industry because employees tend to be drawn to successful and innovative companies (Cahyono et al., 2023). Companies can use this advantage as a foundation to develop growth strategies, enter new markets, or innovate in products or services. The ability to leverage competitive advantage effectively in strategic decision-making can help a company maintain its position in the market and improve its performance (Azeem et al., 2021).

Hypothesis 3a. *Competitive advantage has a positive effect on firm performance.*

Hypothesis 3b. *Competitive advantage mediates the relationship between enterprise risk management and firm performance.*

Hypothesis 3c. *Competitive advantage mediates the relationship between supply chain management and firm performance.*

Correct business decisions play a central role in creating company performance. An effective decision-making process can guide the company toward achieving its business goals. Good decisions can help the company identify growth opportunities (Awan et al., 2021). By analyzing the market, industry trends, and customer needs, a company can make strategic decisions

that support the development of new products, market expansion, or business portfolio diversification. Good decisions in resource allocation and risk management can contribute significantly to company performance (Dos Santos et al., 2019; Crovini et al., 2021). Efficient fund management, investment balancing, and a good understanding of risks can minimize potential losses and enhance the financial stability of the company. Decisions related to capital structure and investment can impact profitability and long-term growth. Furthermore, business decisions also play a crucial role in building the company's reputation. Ethical decisions, corporate social responsibility, and consistent product or service quality can build customer trust and a positive image in the market (Hristov et al., 2022). A good reputation can strengthen the company's brand, increase customer loyalty, and overall support long-term performance. Decisions related to innovation and adaptation to changes in the business environment can ensure that the company remains relevant and competitive in a continually evolving market. Therefore, responsive and proactive decision-making is key to creating superior and sustainable firm performance (Fischer et al., 2020).

Hypothesis 4a. *Decision making has a positive effect on firm performance.*

Hypothesis 4b. *Decision making mediates the relationship between enterprise risk management and firm performance.*

Hypothesis 4c. *Decision making mediates the relationship between supply chain management and firm performance.*

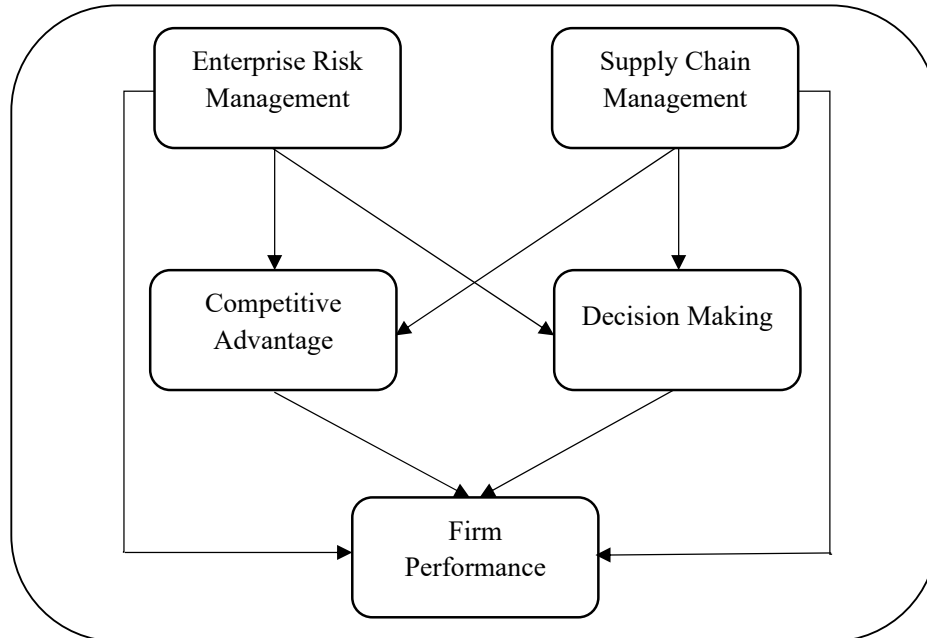


Fig. 1. Theoretical Framework

3. Research Method

This study employs a quantitative research methodology approach adopted from Yang et al. (2018). Data collection is conducted through the distribution of questionnaires using an online platform designed with a Likert scale, where respondents are asked to assess statements on a scale ranging from 1 to 5 (disagree – strongly agree). The sample selection process utilizes random sampling, meaning each member of the population has an equal chance of being chosen as a respondent. The respondents in this study consist of managers and staff working in banks owned by State-Owned Enterprises (SOE/BUMN) in Indonesia. The number of samples that can be analyzed for this research is 263 samples. This number is obtained from a total of 400 questionnaires distributed to respondents, but only 279 were successfully collected, indicating a questionnaire return rate of 69.75%. Furthermore, there are 18 questionnaires that were not fully completed, so these questionnaires cannot be continued to the analysis stage. The data collection process took place from February 2023 to June 2023, providing a sufficient timeframe to obtain representative data. Once the data is collected, the analysis is carried out using Structural Equation Modeling (SEM) with the assistance of SmartPLS software. This method provides a statistical analysis framework to examine the relationships between variables in the research model. By combining Likert questionnaires, random sampling techniques, and SEM, this research aims to provide a deep understanding of the factors influencing company performance, specifically in State-Owned Banks in Indonesia. The results of the analysis are expected to offer strategic insights and valuable policy recommendations for bank management and relevant stakeholders.

4. Research Result

This study explores the relationship between Enterprise Risk Management (ERM) and Supply Chain Management (SCM) as independent variables on firm performance. ERM, encompassing a holistic approach to risk management across the entire organization, and SCM, focusing on optimizing the supply chain, are identified as factors that may influence company

performance. In this research, competitive advantage and decision making are positioned as mediating variables expected to bridge the influence of ERM and SCM on firm performance. Competitive advantage is believed to provide a competitive edge through the distinctive features of the company, while decision making is considered a key mediator in translating strategic decisions into outcomes that affect company performance. As for the Enterprise Risk Management (ERM) variable, it is measured using 4 indicators, while the Supply Chain Management (SCM) variable uses 5 indicators. The competitive advantage variable uses 3 indicators, decision making 2 indicators, and firm performance uses 3 indicators. Initial analysis is conducted to assess the relevance of the questionnaire questions used to measure the indicator's level, performed through the standard loading factor test. The minimum value required to conclude that the questionnaire questions used are relevant is > 0.6. The results of the standard loading factor test are presented in Fig. 2.

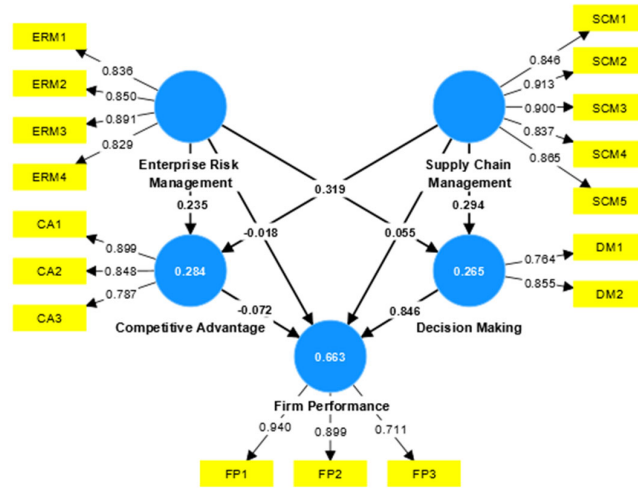


Fig. 2. Analysis Results

The test results indicate that the 4 indicators used to measure the enterprise risk management variable, namely ERM1, obtained a standard loading factor value of 0.836, ERM2 at 0.850, ERM3 at 0.891, and ERM4 at 0.829. Furthermore, the five indicators measuring the supply chain management variable, namely SCM1, obtained a standard loading factor value of 0.846, SCM2 at 0.913, SCM3 at 0.900, SCM4 at 0.837, and SCM5 at 0.865. There are 3 indicators used to measure the competitive advantage variable. The standard loading factor values obtained are CA1 at 0.899, CA2 at 0.848, and CA3 at 0.787. The standard loading factor values obtained for the indicators measuring the decision-making variable are DM1 at 0.764 and DM2 at 0.855. The standard loading factor values obtained for the indicators measuring the firm performance variable are FP1 at 0.940, FP2 at 0.899, and FP3 at 0.711. More detailed results of the standard loading factor values obtained from each indicator can be seen in Table 1.

Table 1
Standard Loading Factor

Variable	Indicator	Std. Loading Factor
Enterprise Risk Management	ERM1	0.836
	ERM2	0.850
	ERM3	0.891
	ERM4	0.829
Supply Chain Management	SCM1	0.846
	SCM2	0.913
	SCM3	0.900
	SCM4	0.837
	SCM5	0.865
Competitive Advantage	CA1	0.899
	CA2	0.848
	CA3	0.787
Decision Making	DM1	0.764
	DM2	0.855
Firm Performance	FP1	0.940
	FP2	0.899
	FP3	0.711

In determining the level of reliability and validity of indicators in measuring latent variables, this study uses reliability testing and validity testing in its measurements. Reliability testing aims to assess the extent to which the measurement instrument can provide consistent results when repeated on the same subjects or objects. An instrument considered reliable means it is

dependable and not significantly influenced by irrelevant or undesirable factors. In reliability testing, the composite reliability value serves as the baseline measure of how reliable indicators are in measuring latent variables. The minimum accepted composite reliability value to declare indicators reliable is 0.7. Validity testing, on the other hand, aims to assess the extent to which a measurement instrument or test truly measures the intended variable. Validity measures how effective and accurate an instrument is in measuring the intended variable. In validity testing, the level of validity of indicators is based on the Average Variance Extracted (AVE) values obtained. The minimum accepted AVE value to demonstrate that the indicators used have good validity is 0.6. Additionally, discriminant validity testing is used to provide further insight into the level of validity of indicators. In this study, discriminant validity testing (cross-loading) is employed, where the results provide a detailed overview of the values obtained from each indicator in measuring latent variables. The results of reliability and validity testing are presented in Table 2, while discriminant validity testing (cross-loading) is presented in Table 3.

Table 2
Reliability and Validity Testing

Variable	Composite reliability	Average variance extracted (AVE)
Enterprise Risk Management	0.914	0.725
Supply Chain Management	0.941	0.762
Competitive Advantage	0.883	0.716
Decision Making	0.793	0.657
Firm Performance	0.890	0.732

Table 3
Discriminant Validity (Cross Loading)

Variable	Enterprise Risk Management	Supply Chain Management	Competitive Advantage	Decision Making	Firm Performance
ERM1	0.836	0.326	0.272	0.330	0.253
ERM2	0.850	0.298	0.310	0.333	0.255
ERM3	0.891	0.454	0.417	0.489	0.427
ERM4	0.829	0.270	0.315	0.289	0.183
SCM1	0.310	0.846	0.392	0.290	0.226
SCM2	0.363	0.913	0.442	0.360	0.323
SCM3	0.336	0.900	0.369	0.355	0.335
SCM4	0.384	0.837	0.391	0.302	0.297
SCM5	0.388	0.865	0.505	0.495	0.405
CA1	0.293	0.450	0.899	0.633	0.487
CA2	0.267	0.423	0.848	0.557	0.457
CA3	0.448	0.364	0.787	0.577	0.420
DM1	0.477	0.470	0.784	0.764	0.458
DM2	0.262	0.247	0.394	0.855	0.824
FP1	0.308	0.274	0.471	0.795	0.940
FP2	0.285	0.304	0.506	0.725	0.899
FP3	0.316	0.419	0.405	0.535	0.711

The reliability test results for the enterprise risk management variable obtained a composite reliability value of 0.914. The supply chain management variable obtained a composite reliability value of 0.941. The composite reliability values obtained for the competitive advantage, decision making, and firm performance variables were 0.883, 0.793, and 0.890, respectively. The composite reliability values obtained for all these variables proved to be greater than 0.7. This indicates that the indicators used to measure each latent variable are reliable and have a high level of reliability. In terms of validity testing, the AVE values obtained for the enterprise risk management, supply chain management, competitive advantage, decision making, and firm performance variables were 0.725, 0.762, 0.716, 0.657, and 0.732, respectively. The AVE values obtained for all these variables are above 0.6, indicating that the indicators used to measure each latent variable have a good level of validity. Additionally, in Table 3, the discriminant validity testing (cross-loading) also proved successful, with the values obtained for each indicator being higher in measuring the measured latent variable compared to other variables (indicated in bold). After testing the indicators in measuring latent variables and accepting each test, hypothesis testing is conducted to measure the extent of the relationship between variables. In this study, there are both direct relationships and relationships that are not direct or through mediation. Hypotheses are considered accepted and have a significant influence, as evidenced by the T-statistic values exceeding 1.96 or p-values less than 0.05. The results of the hypothesis testing are presented in Fig. 3 and in detail in Table 4. In hypothesis 1a, the influence of enterprise risk management on competitive advantage obtained a T-statistic value of 2.271 (>1.96) and a p-value of 0.025 (< 0.05), meaning that this hypothesis is accepted as it has a significant effect. Hypothesis 2b, stating that enterprise risk management has an impact on decision making, is also accepted. This is evidenced by the T-statistic value of 3.900 and a p-value of 0.000. However, in hypothesis 1c, the influence of enterprise risk management on firm performance is not significant. This is because the T-statistic value obtained is only 0.210, and the p-value is 0.834. Moving on to hypothesis 2a, which states that supply chain management has an influence on competitive advantage, the T-statistic value is 4.409, and the p-value is 0.000. This indicates that the hypothesis is accepted, meaning it has a significant effect. Hypothesis 2b, the impact of supply chain management on decision making, also proves to have a significant effect, as evidenced by the T-statistic value of 3.195 and a p-value of 0.002. However, hypothesis 2c, stating that supply chain

management has an impact on firm performance, is rejected because the T-statistic value obtained is only 0.920, and the p-value is 0.360.

Table 4
Hypothesis Testing

	Hypothesis	T statistics	p-values	Information
H1a	Enterprise Risk Management → Competitive Advantage	2.271	0.025	Significant
H1b	Enterprise Risk Management → Decision Making	3.900	0.000	Significant
H1c	Enterprise Risk Management → Firm Performance	0.210	0.834	Not Significant
H2a	Supply Chain Management → Competitive Advantage	4.409	0.000	Significant
H2b	Supply Chain Management → Decision Making	3.195	0.002	Significant
H2c	Supply Chain Management → Firm Performance	0.920	0.360	Not Significant
H3a	Competitive Advantage → Firm Performance	0.817	0.416	Not Significant
H3b	Enterprise Risk Management → Competitive Advantage → Firm Performance	0.718	0.474	Not Significant
H3c	Supply Chain Management → Competitive Advantage → Firm Performance	0.762	0.448	Not Significant
H4a	Decision Making → Firm Performance	13.932	0.000	Significant
H4b	Enterprise Risk Management → Decision Making → Firm Performance	3.742	0.000	Significant
H4c	Supply Chain Management → Decision Making → Firm Performance	3.166	0.002	Significant

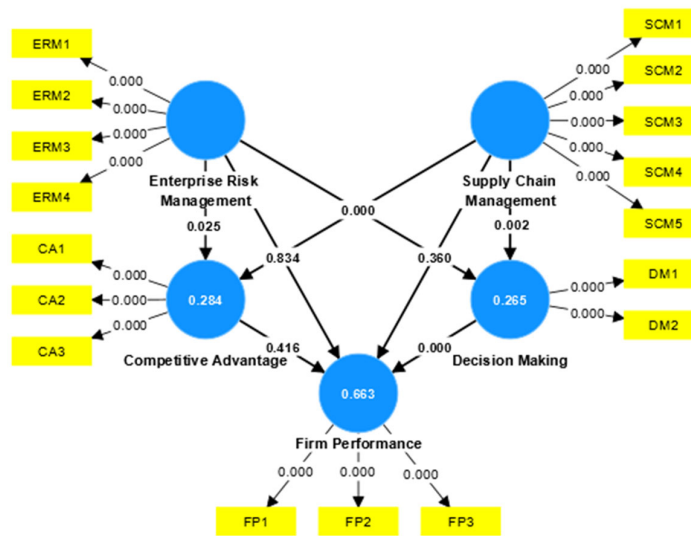


Fig. 3. Path Coefficient

Furthermore, hypothesis 3a, stating that competitive advantage affects firm performance, is rejected because the T-statistic value obtained is only 0.817, and the p-value is 0.416. As for hypotheses 3b and 3c, placing competitive advantage as a variable mediating the relationship between enterprise risk management and supply chain management on firm performance is also found to have no significant effect. This is evidenced by the T-statistic values obtained, which are 0.718 and 0.762, with p-values of 0.474 and 0.448, respectively. Thus, competitive advantage cannot mediate the relationship between enterprise risk management and supply chain management on firm performance, leading to the rejection of hypotheses 3b and 3c. Regarding hypothesis 4a, the impact of decision making on firm performance is proven to have a significant effect, as indicated by the T-statistic value of 13.932 and a p-value of 0.000. Furthermore, in hypotheses 4b and 4c, where decision making becomes a variable mediating the relationship between enterprise risk management and supply chain management on firm performance, also proves to have a significant effect. This is evidenced by the T-statistic values of 3.742 and 3.166, with p-values of 0.000 and 0.002, respectively.

5. Conclusion

The research findings conclude that the implementation of Enterprise Risk Management (ERM) significantly contributes to creating a competitive advantage and supports better decision-making in the financial institution studied. Although ERM does not directly impact firm performance, its role in creating a competitive advantage and supporting strategic decision-making through the mediator decision-making is crucial. Additionally, Supply Chain Management (SCM) has also been proven to have a significant positive impact on creating a competitive advantage and supporting better decision-making. However, the implementation of SCM does not directly affect firm performance, indicating that SCM's focus is more on optimizing the supply chain and creating a competitive advantage. Competitive advantage, while not having a direct influence on firm performance, remains a crucial element in attracting customer attention, enhancing loyalty, and building a positive image. On the other hand, decision-making has proven to have a significant positive impact on firm performance, reinforcing the

argument that good decision-making plays a key role in a company's success. Corporate management, especially in the banking sector, can draw several important implications from this research. It is essential to understand that ERM and SCM have distinct roles, with ERM focusing more on holistic risk management, while SCM is more focused on optimizing the supply chain. Corporate strategies can be adjusted by emphasizing competitive advantage and effective decision-making. This research also provides recommendations for further studies, such as delving into additional factors influencing the relationships between variables or considering additional variables that may moderate these relationships. These conclusions form the basis for financial institutions, particularly banks, to optimize corporate strategies in the face of the continually evolving business environment.

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1.  **Enterprise risk management and supply chain management: The mediating role of competitive advantage and decision making in improving firms performance**, *Available Online, November, 2023*
M.L. Denny Tewu, Suwarno, Purwatiningsih Lisdiono, Renny Friska and Agus Joko Pramono  PDF (360K)



Abstract: The complexity of risk management and supply chain optimization in the business context, especially in financial institutions such as banking, highlights several factors that require special attention. In the banking sector, where risk and operational smoothness are crucial, risk management and supply chain optimization play pivotal roles in maintaining stability and competitiveness. The objective of this research is to explore the extent to which the implementation of ERM (Enterprise Risk Management) and SCM (Supply Chain Management) can create a competitive advantage, influence decision-making, and ultimately impact company performance. The research methodology employed is quantitative. Data collection was conducted through the distribution of Likert-scale questionnaires with a score range from 1 to 5. The sample selection process utilized random sampling techniques, involving managers and staff working in State-Owned Enterprises (SOE/BUMN) in Indonesia. The study analyzed 263 samples, with data collected from February 2023 to June 2023. Structural Equation Modeling (SEM) with SmartPLS software facilitated data analysis. The results indicate that ERM significantly influences competitive advantage and decision-making, but it does not directly impact company performance. Similarly, SCM has a significant positive impact on competitive advantage and decision-making but does not directly affect company performance. Competitive advantage, in this study, did not prove to enhance firm performance or act as a mediator connecting ERM and SCM to company performance. However, decision-making significantly influences company performance and serves as a significant mediator in the relationship between ERM and SCM concerning company performance.

DOI: 10.5267/j.uscm.2023.11.021

Keywords: Enterprise Risk Management, Supply Chain Management, Competitive Advantage, Decision Making, Firm Performance



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2.  **Government intervention and subsidised fertiliser program: Enhancing fertiliser supply chain and its implications on sustainable agricultural systems**, *Available Online, November, 2023*
 Ali Jamil, M. Saleh S. Ali, Imam Mujahidin Fahmid, Fauzi Zowid and Darmawan Salman  PDF (360K)



Abstract: The Indonesian Government's Subsidized Fertilizer Program aims to enhance the food-agriculture sector's performance and address farmers' limited resources. The research aims to analyse the influence of the Government Intervention and Subsidized Fertilizer Program on the Fertilizer Supply Chain and Its Implications on Sustainable Agricultural Systems. This research was conducted in Indramayu District, West Java, Sidrap, and Wajo Districts, South Sulawesi. Data was collected using a survey method, among respondents. Data was analysed using smart PLS. The results of the analysis show that there is a significant influence between Government Intervention and the Fertilizer Supply Chain. There is a significant influence between the Subsidized Fertilizer Program on the Fertilizer Supply Chain. There is a significant influence of Government Intervention on Sustainable Agricultural Systems. There is a significant influence of the Subsidized Fertilizer Program on Sustainable Agricultural Systems. To improve the smooth running of the Fertilizer Supply Chain, it is necessary to improve the Government Intervention and Subsidized Fertilizer Program. The implication of this research is that when the government wants to improve Sustainable Agricultural Systems, the government needs to improve Government Intervention, the Subsidized Fertilizer Program, and the smooth running of the Fertilizer Supply Chain.

DOI: 10.5267/j.uscm.2023.11.020

Keywords: Supply chain, Governance, Subsidised fertiliser, Discourse, Food agriculture



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2.  **The effectiveness of human resource management practices on increasing organizational performance and the mediating effect of employee engagement**, *Available Online, November, 2023*
 Asaad Alsakarneh, Hisham Ali Shatnawi, Wael Basheer Abdul Kareem Alhyasat, Fauzi Zowid, Ro'aa Adnan Mustafa Alrababah and Bilal Eneizan  PDF (360K)

Abstract: Enhancing employee loyalty to the company is essential to maximize corporate ability and achieve respective goals, as employees are the most valuable resource. Hence, managing human resources in organizations is key to achieving contemporary business success. The current study aims to assess the impact of human resource management practices (HRM) on organizational performance with employee engagement as a potential mediator. This study was conducted on Jordanian tourism projects. A total of 300 questionnaires were distributed with 237 returned. The data were analyzed through the partial least squares (PLS) software. Resultantly, performance appraisal and employee engagement significantly and positively impacted organizational performance. Recruitment and selection, training and development, compensation, and performance appraisal also significantly and positively impacted employee engagement. Employee engagement significantly mediated the impact of performance appraisal on recruitment, selection, and compensation with organizational performance.

DOI: 10.5267/j.uscm.2023.11.019

Keywords: HRM practices, Organizational performance, Employee engagement, Tourism projects




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Open Access Article

Forensic accounting and firm performance: An empirical investigation on emerging markets, *Available Online, November, 2023*

2.



Riyad Neman Darwazeh, Khaleel Ibrahim Al-Daoud, Abeer Fayez AL-Khoury, Yousef Khaled Abuorabi and Mohammed Nadem Dabaghia 
PDF (360K)

Abstract: The current study aimed at exploring the impact of supply chain internal and external integration on the operational performance of manufacturing companies operating in Jordan, as well as addressing the possibility of a mediation effect of lean operations and practises on the proposed relationship. Achieving the study objectives necessitated using the deductive approach and the descriptive survey approach. Using a well-designed questionnaire, the primary data was collected from a 315-manager sample randomly selected from the companies. Accordingly, the nature of how supply chain integration, lean operations, and operational performance impact each other was investigated. The study results revealed that integrating the supply chain both internally and externally could increase the opportunity to attain a more desirable operational performance, particularly in terms of quality performance measures. Moreover, in the vein of adopting

lean practices among manufacturing companies, a positive mediation effect was found. Thus. In light of these results, it is concluded that lean operations, as a mediating variable, positively influence the association between internal and external supply chain integration on quality measures of operational performance.

DOI: 10.5267/j.uscm.2023.11.018

Keywords: Forensic Accounting, Firm Performance, Insurance Sector, Jordan



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Open Access Article

Mediating the role of the lean operations on relationship between the supply chain integration and the operational performance ,

2. *Available Online, November, 2023*

 *Mohammad Al-Dweiri, Boshra Miad Ata Ramadan , Abas Salem Rawshdeh, Abdelrahim Nassoura, Abd Al-Salam Ahmad Al-Hamad and Yahiya Ahmad Bani Ahmad*  PDF (360K)

Abstract: The current study aimed at exploring the impact of supply chain internal and external integration on the operational performance of manufacturing companies operating in Jordan, as well as addressing the possibility of a mediation effect of lean operations and practises on the proposed relationship. Achieving the study objectives necessitated using the deductive approach and the descriptive survey approach. Using a well-designed questionnaire, the primary data was collected from a 315-manager sample randomly selected from the companies. Accordingly, the nature of how supply chain integration, lean operations, and operational performance impact each other was investigated. The study results revealed that integrating the supply chain both internally and externally could increase the opportunity to attain a more desirable operational performance, particularly in terms of quality performance measures. Moreover, in the vein of adopting lean practices among manufacturing companies, a positive mediation effect was found. Thus. In light of these results, it is concluded that lean operations, as a mediating variable, positively influence the association between internal and external supply chain integration on quality measures of operational performance.

DOI: 10.5267/j.uscm.2023.11.017

Keywords: Manufacturing Companies, Integration, Lean Operations, Operational Performance, Supply Chain



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Key success drivers for implementation blockchain technology in

2. **UAE Islamic banking**, *Available Online, November, 2023*
 *Hisham O. Mbaidin, Nour Qassem Sbaee, Isa Othman AlMubydeen and Khaled Mohammad Alomari*  PDF (360K)

Abstract: The utilization of blockchain technology is increasingly emerging as a catalyst for significant changes across multiple industries, including the domain of Islamic finance. This study examines the influence of blockchain technology on the factors that contribute to the successful adoption of blockchain in Islamic banks located in the United Arab Emirates (UAE). The present study employs a cross-sectional survey methodology, encompassing a sample of 344 banking professionals. The investigation utilizes Partial Least Squares Structural Equation Modeling (PLS-SEM) as a statistical technique to examine the association between several crucial variables, namely Trust, Financial Transfers, Operating Expenses, Safety and Security, and the effective implementation of blockchain technology. The results indicate that these variables have a major impact on the effectiveness of implementing blockchain technology, confirming its ability to boost the efficiency of transactions, decrease expenses, and enhance security while adhering to Shariah law. This work makes a vital contribution to the scholarly discourse around the deployment of technology in the context of Islamic banking. In particular, it emphasizes blockchain technology's part in fostering innovation within the sector and fostering a culture of compliance with the sector's ethical and operational standards.

DOI: 10.5267/j.uscm.2023.11.016



Keywords: Blockchain, Success Drivers, Islamic banks



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The dynamic role of business intelligence in developing effective planning strategies through analyzing data as an influential variable: Case of engineering the pharmaceutical sector in Jordan

2. **Available Online, November, 2023**
 *Hisham O. Mbaidin*  PDF (360K)

Abstract: In the current pharmaceutical context of Jordan, the significance of Business Intelligence (BI) has emerged as a crucial factor in designing efficient planning methods. This research

investigates the transformative impact of business intelligence (BI) in four key domains: drug development enhancement, operational optimization, compliance assurance, and market dynamics comprehension. The research highlights the need to utilize a data-driven methodology to emphasize the value of business intelligence (BI) tools in extracting valuable insights, facilitating strategic decision-making, and promoting operational efficiency. The results indicate that pharmaceutical organizations that utilize business intelligence (BI) can uncover concealed patterns, recognize chances for growth, and make well-informed decisions. Additionally, the capacity of business intelligence (BI) to integrate novel data has accelerated the development of resilient technical frameworks, thereby reinforcing its essential position within the pharmaceutical sector in Jordan. This research serves as evidence of the potential of business intelligence (BI) in facilitating innovation, surmounting obstacles, and eventually improving patient outcomes.

DOI: 10.5267/j.uscm.2023.11.015

Keywords: Business Intelligence (BI), Pharmaceutical industry, Effective planning strategies, Data-driven decision-making



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Open Access Article

Enhancing company performance and profitability through agile practices: A comprehensive analysis of three key perspectives

Available Online, November, 2023

2.

Irma Himmatul Aliyyah, Basrowi, Indrawan Nugroho, Taufik Mardian, Dina Syakina, Maesti Mardiharini, Saptana, Adi Suryo Hutomo, Agung Sutoto and Akhmad Junaidi PDF (360K)

Abstract: This research aims to reveal the role of three types of agility (employee agility, work method agility, and organizational agility) in improving company performance and profitability. In this research, a quantitative survey was carried out using a questionnaire adapted by the author based on learning agility and organizational agility theories. Five hundred and ninety-seven respondents from 25 companies, 13 sub-industries in Indonesia were taken as samples using the purposive sampling method. Data analysis was carried out using Smart PLS3. The research results show that the three dimensions of agile have a beneficial impact on the performance and profitability of the company. It was found that the impact of agile work approaches on corporate performance productivity and profitability was more significant than employee agility and organizational agility. These findings have implications for companies that implement agile work methods more optimally to improve company performance and

profitability. Apart from that, companies also need to pay attention to the importance of developing employee skills and organizational flexibility amidst the swift transformations in the corporate landscape. This research contributes to management literature, especially in expanding understanding of the influence of agile dimensions on company performance and profitability.

DOI: 10.5267/j.uscm.2023.11.014

Keywords: Employee Agility, Organizational Agility, Agile Methods, Performance, Profit



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Open Access Article

2. **Testing health belief model on food safety behaviour in Jordanian restaurants: The moderating effect of willingness to comply** ,

Available Online, November, 2023

Amany Khalaf Haddad and Abdul Hafaz Ngah  PDF (360K)

Abstract: The current study was primarily intended to assess the Health Belief Model on Food Safety Behaviour with the moderating role of willingness to comply in the context of Jordanian restaurants. HBM comprises numerous factors including perceived benefits (PBN), perceived susceptibility (PSU), perceived severity (PSV), cues to action (CA), perceived barriers (PBR), and self-efficacy (SE). A quantitative research design was adopted, and data collection was done via Google Forms from the Amman Chamber of Industry and Jordanian Restaurant Association (JRA). A purposive sampling approach was used, and the target population were the restaurants from Amman, Jordan. Initially, total 500 questionnaires have been distributed of which 302 responses were received as well as after eliminating missing or improper responses, only 296 were processed for the final analysis. Data analysis was done via Smart-PLS. The outcomes enlightened a positive interlinkage between perceived benefits, perceived barriers, perceived susceptibility, cues to action, and self-efficacy with food safety behaviour. However, PSV and FSB didn't show any relation. The moderating analysis of WC revealed the absence of any moderating impact on perceived susceptibility, benefits, and perceived severity on food safety behaviour. Likewise, the demographic details of the participants were utilized as control variables and did not yield any impact on the food safety behaviour. To sum up, the study concludes that public health professionals and legal representatives, including lawmakers, ought to educate food handlers regarding the significance of food safety behaviours due to widespread misconceptions about how

current food safety standards promote positive results. Consequently, Jordanian restaurants should strictly adhere to safety-related regulatory protocols to meet the growing demands of consumers. The findings of the current work also offer valuable theoretical as well as practical implications for the practitioners in the field.

DOI: 10.5267/j.uscm.2023.11.013

Keywords: Willingness To Comply (WC), Food Safety Behavior (FSB), Jordanian Restaurants, Health Benefit Model (HBM)



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2.



The impact of procurement agility and procurement sustainability on organizational performance in UAE's entities: The mediating role of corporate governance, *Available Online, November, 2023*

Nawaf Alawadhi and Muhammad Alshurideh  PDF (360K)

Abstract: Today, there is a need to develop businesses procurement activities through adopting agile and sustainable procurement practices. The key aim of this research is to identify the influence of both procurement agility and sustainability on organizational performance. The study creates a relationship between the procurement agility and procurement sustainability in the organizational performance with the mediating role of corporate governance. The research framework involves two critical predictors including procurement agility and procurement sustainability. The data was collected with a quantitative cross-sectional methodology within UAE's business entities context through adaptation of a well-designed questionnaire that was distributed to different businesses like Aviation, Hospitality and Telecommunication (320 responses). The study findings supported a hypothesized model with a significant influence of procurement agility and procurement sustainability on organizational performance. In addition, corporate governance mediated the relationship between procurement agility and organizational performance. The study concluded with the growing non-traditional procurement activities for better organizational outcomes.

DOI: 10.5267/j.uscm.2023.11.012

Keywords: Procurement agility, Procurement sustainability, Organizational performance, Mediation, Corporate governance



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2.  **The mediating role of ICT on the impact of supply chain management (SCM) on organizational performance (OP): A field study in Pharmaceutical Companies in Jordan**, *Available Online, November, 2023*
Hazem Khaled Shehadeh, Ahmad A. I. Shajrawi, Munif Al Zoubi and Mohammad Khalaf Daoud  PDF (360K)

Abstract: This research aims to identify the Mediating role of ICT on the Impact of supply chain management (SCM) on organizational performance (OP), a field study: of pharmaceutical companies in Jordan. To achieve the aim of the research, the researcher used the descriptive analytical approach. The research population is all the employees in the three pharmaceutical companies listed on the Amman Stock Exchange (1,528), A suitable sample content of (400) employees was chosen, questionnaires were distributed using Google Forms, and the percentage of correct questionnaires was (85%), The research concluded that SCM with its dimensions has an impact on OP in pharmaceutical companies in Jordan, CRM does not exhibit a notable impact on the dependent variable OP and this research provides robust support for ICT mediating the relationship between SCM and OP in pharmaceutical companies in Jordan. The research recommended pharmaceutical companies to explore strategies to enhance their customer relationships and it also recommends pharmaceutical companies to invest in and enhance ICT infrastructure and capabilities, this research also recommends future studies to examine the role of artificial intelligence (AI) instead of (ICT) mediator between (SCM) and (OP).


DOI: 10.5267/j.uscm.2023.11.011


Keywords: Supply Chain Management (SCM), Organizational Performance (OP), ICT, Pharmaceutical Companies, Jordan



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2.  **The impact of digital marketing on the adoption of building information modeling system in Jordanian interior design companies: The moderating role of credibility**, *Available Online, November, 2023*
Huda Istatieh, Malek Alsoud, Jassim Ahmad Al-Gasawneh, Ahmad A. I.

Shajrawi, Munif Al Zoubi and Mohammad Khalaf Daoud  PDF (360K)

Abstract: Failure in digital marketing strategies implementation in building information modeling (BIM) adoption has been observed among some interior design firms. The impact of digital marketing on BIM system adoption among interior design companies was examined in this descriptive analytical research. The research also examined the credibility of BIM system adoption and how the system moderates credibility in the relationship between digital marketing strategies and BIM system adoption. A conceptual model comprising digital marketing strategies (content marketing, social media, and search engines) as independent variables impacting information modeling system adoption as a dependent variable was proposed. The moderating effect of credibility in the relationship between digital marketing strategies and BIM system adoption was examined. Data were gathered through questionnaires delivered online to 300 selected study participants via Google Forms. Usable data from 250 participants and the study hypotheses were analyzed using Structural Equation Modeling (SEM) with Partial Least Square (PLS). The results showed a significant impact of digital marketing strategies (content marketing, social media, and search engines) on BIM system adoption. It also emphasized the moderation of the role of credibility in the relationship between digital marketing strategies (content marketing, social media and search engines). This study can help Jordanian interior design companies to make optimal use of digital marketing strategies (content marketing, social media, and search engines) to adopt the BIM system to increase profits.

DOI: 10.5267/j.uscm.2023.11.010

Keywords: Digital marketing, Adoption, Credibility, Interior Design Companies



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Open Access Article

Measuring the ROI of paid advertising campaigns in digital marketing and its effect on business profitability, *Available Online, November, 2023*

2.



Ra'd Almestarihi, Ahmad Y. A. Bani Ahmad, Rana Husseini Frangieh, Ibrahim A. Abu-AlSondos, Khaled Khamis Nser and Abdulkrim Ziani

 PDF (360K)

Abstract: In today's digital age, businesses invest substantial resources in paid advertising campaigns to enhance their online presence and attract customers. This study delves into the critical

aspects of measuring the return on investment (ROI) of such campaigns and explores their impact on overall business profitability. Through a comprehensive analysis of data from various industries, this research investigates the effectiveness of paid advertising in generating revenue and its role in shaping a company's bottom line. Key findings indicate that calculating the ROI of paid advertising is a multifaceted challenge, involving factors such as ad spend, conversion rates, and customer lifetime value. The study also underscores the importance of tracking and attributing conversions accurately to assess the true impact of advertising efforts. Ultimately, the research suggests that while paid advertising campaigns can be costly, a well-executed and data-driven approach can yield a substantial positive effect on a company's profitability, making them a valuable component of a comprehensive digital marketing strategy. As businesses navigate the dynamic digital marketing environment, this study provides valuable insights for marketing professionals, business leaders, and decision-makers seeking to enhance their advertising strategies and drive improved financial performance.

DOI: 10.5267/j.uscm.2023.11.009

Keywords: ROI, Paid Advertising, Campaigns, Digital Marketing, Business Profitability, Introduction



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Open Access Article

Safety management practices among Saudi healthcare professionals during pandemic, *Available Online, November, 2023*

2.



Maymunah Ali Hakami, Sayeeduzzafar Qazi and Ayman Zarban 
PDF (360K)

Abstract: The COVID-19 pandemic has greatly impacted organizational processes and activities. Unlike previous pandemics, COVID-19 has affected everyone directly or indirectly. To protect employees from the virus and associated risks, organizations have focused on developing occupational health and safety management systems. While safety policies and practices were already in place before the pandemic, the emergence of new physical and psychological risks has led organizations to amend their safety and health management systems. Governments have introduced health containment measures such as social distancing, working in shifts, and mandatory quarantine to enhance safety for people worldwide. Employers have also introduced safety measures to build confidence in implementation. These safety management practices have influenced employees' behaviors during the pandemic, and

this study aims to examine their impact. Specifically, the study aims to determine the impact of management practices on the behavior of healthcare employees regarding their safety in a threatening environment. Additionally, the study seeks to investigate the indirect influence of management practices on employees' behavior through perceived risks and efficacy. It is important to note that there has been a lack of research on the impact of COVID-19 on healthcare workers in Saudi Arabia. This study found that management commitment did not directly influence employee safety behavior. However, management commitment towards workplace safety practices had a significant and direct influence on healthcare employees' perceived risk associated with COVID-19 and their efficacy. Consequently, management commitment was found to indirectly influence employee safety behavior through efficacy.

DOI: 10.5267/j.uscm.2023.11.008


Keywords: Health and Safety, Safety Management, Healthcare Professional, Pandemic, Safety Practices



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Open Access Article

Seafarer work stress and performance: Empirical evidence of shipping safety of Indonesia national shipping companies, *Available Online, November, 2023*

2. Sofwan Farisyi, Prasadja Ricardianto, Indah Purnaningratri, Aswanti Setyawati, Gembong Satria Negara, Iwan Weda, Novita Widyaningrum, Gatot Cahyo Sudewo, Chandra Mardhika Saputra and **Endri Endri** 
PDF (360K)

Abstract: The main problem in this research, among others, was the lack of attention given by the company management to the seafarers' demands concerning health, social aspects, work stress, work environment, work facilities, and working hours that increased seafarers' pressure. The aim of this research was to analyze the influence of job satisfaction and work stress on shipping safety with seafarer performance as the intervening variable. The research was carried out in Balai Pendidikan dan Pelatihan Ilmu Pelayaran (Center for Maritime Education and Training) Tangerang with the samples of 93 seafarers working in several shipping companies. Data was processed using Path analysis. The result of this research showed that job satisfaction and work stress directly influenced seafarer performance. Meanwhile, job satisfaction and work stress had an indirect influence on shipping safety through seafarer performance, and seafarer performance had a direct influence on shipping safety. The result of Path analysis showed that work stress rather than job

satisfaction had a bigger influence on seafarer performance, and seafarer performance had the biggest direct influence on shipping safety.

DOI: 10.5267/j.uscm.2023.11.007

Keywords: Job satisfaction, Work stress, Seafarer performance, Shipping safety




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The partnerships and logistics leadership in the SMEs: The impact of digital supply chain implementation, *Available Online, November, 2023*

2.



Evada Rustina, Samuel Teguh Tarigan, Yogi Makbul, Mei Ie, Hasih Pratiwi, Irmawati, Nur Cahyani and Nur Wening  PDF (360K)

Abstract: Digital supply chains play an important role in improving the performance of small and medium enterprises (SMEs) in this digital era. There has been no research that analyzes the relationship between digital leadership, leadership, and partnerships. The aim of this research is to analyze the defect of digital supply chain implementation on logistics leadership and the impact of digital supply chain implementation on partnerships and logistics leadership partnerships. The method of this research is quantitative and data analysis uses structural equation modeling (SEM) partial least squares (PLS) using tools. SmartPLS 3.0 software data is used for processing the data. Research data is obtained by distributing online questionnaires to 589 SME owners in Indonesia determined using a simple random sampling method. The online questionnaire is designed using a Likert scale from 1 to 7 and distributed via social media. The stages of data analysis are validity testing, reliability testing and hypothetical testing. Based on the results of data analysis, it is concluded that digital supply chain implementation has a positive and significant effect on logistics leadership, digital supply chain implementation has a positive and significant effect on partnerships and logistics leadership had a positive and significant effect on partnerships. The novelty of this research is the creation of a correlation model for variable partnerships, logistics leadership and digital supply chain implementation. The managerial implication of this research is to encourage increased partnerships and logistics leadership and we conclude that SMES managers must implement digital supply chain implementation. The theoretical implication of this research is that a new correlation model of partnerships, logistics leadership and digital supply chain implementation in SMEs is created.



DOI: 10.5267/j.uscm.2023.11.006

Keywords: Partnerships, Logistics leadership, SMEs, Digital supply chain implementation



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2. **Public value of using fintech services' mobile applications: Citizens' perspective in a Jordan setting**, *Available Online, November, 2023*
 *Hasan Alhanatleh, Mahmoud Alghizzawi, Zead Alhawamdeh, Baker Alkhlaifat, Zaid Alabaddi and Omar Al-Kasasbeh*  PDF (360K)

Abstract: Measuring the performance of Fintech services on mobile apps (FSMA) is considered a major key to sustain, develop, and improve financial services and their processes, depending on users' standpoints on digital platforms. Public value aims at enhancing the performance of government institutions services. Throughout the current research, authors have suggested a novel way to evaluate the performance and management of FSMA by theorizing a new conceptual framework entitled Public Value of Fintech Services' Mobile Apps (PV-FSMA). A quantitative approach was chosen to measure several factors influencing the use of FSMA and evaluate the degree of public value of FSMA among Jordanians. The structural equation model was conducted based on the results of the PV-FSMA model hypotheses. The results confirmed that FSMA-intention to use (FSMA-ITU) and its predictors: FSMA-usefulness (FSMA-US), FSMA-awareness (FSMA-AR), FSMA-security (FSMA-SE), FSMA-social influence (FSMA-IS), and FSMA-system quality (FSMA-SQ) except FSMA-ease of use (FSMA-ES) are valuable determinants of PV-FSMA. The article presents theoretical implications regarding financial services and public value theories and practical implications regarding public institution leaders, managers, and information technology specialists in the Fintech domain to improve the quality and performance of FSMA in Jordan.

DOI: 10.5267/j.uscm.2023.11.005

Keywords: Fintech, Mobile app, Public value, Public institutions, Jordan



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A comprehensive survey of contemporary supply chain management practices in charting the digital age revolution ,

2. 

Available Online, November, 2023

Ahmad Yacoub Nasereddin  PDF (360K)


Abstract: A new era of supply chain management has been brought about by the digital age, which is completely changing the way companies organize, carry out, and maximize their operations. This survey report provides an in-depth analysis of supply chain management's present situation in this digital environment. Utilizing a comprehensive analysis of extant literature, papers, and studies, it pinpoints and investigates the pivotal patterns, obstacles, and prospects that enterprises encounter when adopting digital technology inside their supply chains. This article explores the range of digital technologies, including blockchain, artificial intelligence (AI), big data analytics, and the Internet of Things (IoT), that have transformed supply chain management. We provide a classified overview of the area by examining the data from many sources and emphasizing recurring elements that characterize the contemporary supply chain environment. We also take into account the effects of digitalization on corporate operations, such as the difficulties associated with data protection, the necessity of change management, and the possibility of increased productivity. Case studies of industry leaders who have successfully transitioned to the digital era shed light on best practices and offer useful insights. Looking forward, we offer a glimpse into the future of supply chain management, predicting and discussing emerging trends and technologies, such as 5G connectivity and sustainability initiatives. This paper concludes with a call to action, emphasizing the importance of staying ahead in the digital age for organizations seeking to remain competitive, agile, and resilient in an ever-evolving business landscape. It also suggests areas for future research and development, guiding further exploration in the field.

DOI: 10.5267/j.uscm.2023.11.004

Keywords: Supply Chain Management, Digital Age, Digital Technologies, Supply Chain Digitization, Trends and Challenges, Survey Paper



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3. **The effectiveness of electronic auditing on improving the financial performance: Evidence from the Jordanian banking industry** , Available Online, November, 2023
Abdalla Alassuli  PDF (360K)

Abstract: The purpose of this research is to find out the effectiveness of E- auditing in improving financial performance at banks operating in Jordan by identifying the association between financial performance, (ROE, Profitability) and E- auditing. To attain the study objectives, A cross-sectional survey method was used to collect data from a sample of employees who work in banks, The preliminary data was collected using electronic structured Likert-Scale questionnaires. The population comprised 25 banks operating in Jordan with 160 employees in the accounting departments. A total of 113 questionnaires were completed and returned electronically from accountants who work in the banks. The SPSS statistical programs were used to analyze the data collected; the results of the analysis found that E-auditing significantly improves the financial performance at banks operating in Jordan. The study concludes that banks should adopt the effective and expanded use of E- audit as it gives independent, truthful, and trusted financial audit information. Banks in Jordan should embrace the effective and expanded use of E- auditing to assure detection of financial fraud, thus sealing routine financial loopholes.

DOI: 10.5267/j.uscm.2023.11.003

Keywords: E-auditing, Financial Performance, Operating Banks, Jordan



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4. **How knowledge sharing mediates the influence of high-performance work systems on employee intrapreneurial behavior: A moderation role of entrepreneurial leadership** , Available Online, November, 2023

Khaldoon Khawaldeh and Amro Alzghoul  PDF (360K)

Abstract: This study offers a comprehensive investigation of the complex interconnections between High-Performance Work Systems, Knowledge Sharing, Entrepreneurial Leadership, and Employee Intrapreneurial Behavior in the telecommunications sector of Jordan. By using a quantitative method, this research employs structured questionnaires to gather comprehensive empirical findings from a sample of industry specialists. With 312 verified replies providing a solid framework, advanced analytical methods such as Structural Equation Modeling (SEM) and Partial

Least Squares (PLS) were utilized to clarify the complex paths and linkages of the proposed hypothesis. The main findings of this study reveal that Entrepreneurial Leadership plays a crucial role in enhancing the influence of High-Performance Work Systems in fostering a dynamic intrapreneurial culture. It acts as a catalyst that magnifies the intrapreneurial inclinations among workers. Furthermore, knowledge sharing has arisen as a mediator, facilitating the influence of High-Performance Work Systems in fostering EIB. The research offers a thorough and intricate analysis that enriches our understanding of the diverse elements and mechanisms at play. The acquisition of this invaluable knowledge can be effectively employed to enlighten organizational strategies and policies, with the ultimate objective of cultivating an atmosphere that is conducive to innovation and intrapreneurial triumph within the swiftly evolving telecommunications sector of Jordan.

DOI: 10.5267/j.uscm.2023.11.002

Keywords: High-Performance Work Systems, Entrepreneurial Leadership, Employee Intrapreneurial Behavior, Knowledge Sharing, Telecommunications Sector, Jordan



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