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Enterprise Risk Management and Bank Performance: A Study of the Indonesian Banking Industry

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Abstract

This investigation wants to prove the impact of enterprise risk management on bank performance. The population comes from employees with a working tenure above three years and working in specific departments in the bank in Indonesia. For the unknown population, we utilize snowball sampling based on the excellent relationship with the limited size of the recognized employees. Fortuitously, we can obtain 198 employees as the samples; hence, this study employs the structural equation model with the covariance basis. Moreover, to estimate the path coefficient and its properties and verify the virtuousness of the fit model, the analysis moment structures (AMOS) program is used. Finally, this study concludes that enterprise risk management affects bank performance positively. Finally, this study implies that through the correct risk management, managers can take the opportunity suitable for their strategy and identify the potential risk to be evaluated by the standard process to make the decision correctly.

Keywords: Banks, SEM Based on Covariance, Risk Management, Performance

1. Introduction

Banking is one of the sectors in Indonesia indirectly influenced by the COVID-19 pandemic in 2020. During this pandemic, numerous companies in real sectors did not operate well; consequently, they could not pay for their interests and principles to the banks. This situation increased non-performing loans in December 2019 and 2020, and September 2021 by 2.53%, 3.06%, and 3.22% (see Figure 1). If this NPL movement is not managed well, it will harm bank performance. Therefore, its accomplishment needs to be evaluated by a holistic model to sustain the bank (Wu, Tzeng, & Chen, 2009).

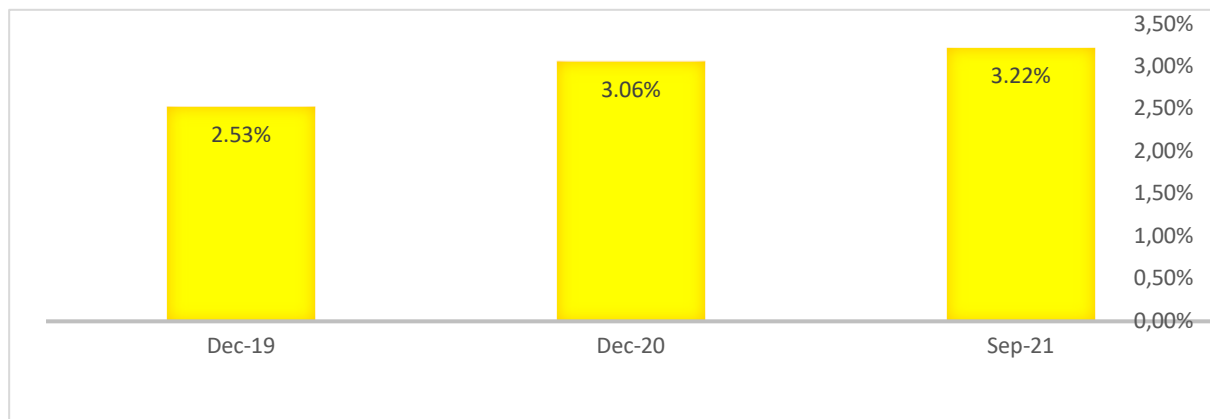


Figure 1: Non-Performing Loans in December 2019 and 2020, and September 2021

One of the assessment methods of performance used in this research is the balanced scorecard (BSC) (Kaplan & Norton, 1992), which can also be applied to banks [see Davis and Albright (2004), Kim and Davidson (2004), Balkovskaya and Filneva (2016), Wu et al. (2019)]. According to Davis and Albright (2004) and Lawrie and Cobbold (2004), BSC is an evaluating tool for extensive and universal performance to plan and control an organization to achieve its goals. Meanwhile, Gershun and Nefedeva (2005) define BSC as a strategic and working governance device to connect its objectives with internal business processes and employee activities. Besides, the BSC functions to monitor strategy execution. Moreover, Kaplan and Norton (1992) explain that BSC divides performance into four perspectives: (1) finance, (2) consumers, (3) internal business process, and (4) learning and growth.

One of the bank performance-related factors is risk management. This risk has to be organized by banks in their governance, as required by the Indonesian Financial Service Authority Regulation No.18/POJK.03/2016 for commercial banks (Olivia et al., 2020) and No. 13/POJK.03/2015 for rural banks (Tjahjono et al., 2022). Furthermore, to measure it, some studies utilize the indicators referring to ISO 31000:2018 (Tjahjono et al., 2022) and the Committee of Sponsoring Organizations of the Treadway Commission (COSO)-enterprise risk management (ERM) (Candy, 2021).

This research uses the COSO-ERM framework (2017) to measure banking risk. This decision exists because the COSO-ERM formulated in 2004 is the primary source for developing ISO31000 clauses for the 2009 first version. Because of the dynamic situations, the COSO-ERM framework has also changed: the latest is version 2017, which adopts five features: (1) governance and culture, (2) strategy and goal setting, (3) risks-related achievement, (4) review and revision, and (5) information, idea exchange, and report.

Additionally, related to this issue, many studies investigate how ERM is associated with its attainment, especially for the non-banking industry (Sofia & Augustine, 2019; González, Santomil, & Herrera, 2020), small-medium companies (Suttipun, Siripong, Sattayarak, Wichianrak, & Limroscharoen, 2018), financial institutions (Rasid, Isa, & Ismail, 2004), and the banking and financial industries (Olayinka, Emoarehi, Jonah, Ame, 2017; Soliman & Adam, 2017; Alawattagama, 2018; Candy, 2021; Sleimi, 2020), all companies, both in the financial and non-financial industry (Damayanti & Augustine, 2019). However, their result is unsatisfying.

- Investigating the firms in the consumer goods industry, Sofia and Augustine (2019) cannot find any association between ERM and performance. Similarly, after researching non-financial firms, González et al. (2000) display no relationship. Conversely, the study by Suttipun et al. (2018) exhibits that ERM positively the company achievement measured by the balanced scorecard indicators.
- Through the research utilizing banks and financial firms, Alawattagama (2018) show no association between ERM and performance. On the other hand, Soliman and Adam (2017) confirm a positive impact of ERM on bank performance. Similarly, this positive indication is affirmed by Olayinka et al. (2017) after studying the financial firms in Nigeria.
- After utilizing two types of bank performance, Rasid et al. (2014) declare ERM affects the non-financial achievement but does not influence the financial achievement. Meanwhile, Candy (2021) proves that ERM

can positively control both. Unlike Rasid et al. (2014) and Candy (2021), Al-Nimer, Abbadi, Al-Omush, and Ahmad (2021) apply three measures of performance and get two positive relationships, i.e., between (1) ERM and the non-financial (2) ERM and the environmental. Unfortunately, they find no relationship between ERM and the financial.

- By utilizing the banking business performance, Sleimi (2020) confirms that risk management practice positively affects it. Similarly, this positive sign is approved by Damayanti & Augustine (2019) in the financial and non-financial industries.

This study intends to examine this relationship again in the Indonesian banking industry by considering this contrary evidence. Unlike the studies using secondary data (Rasid et al., 2014; Soliman & Adam, 2017; Alawattagama, 2018; Sofia & Augustine, 2019; González et al., 2020; Candy, 2021), this study investigates this association by surveying the perception of workforces in the banks in Indonesia.

2. Literature Review and Hypothesis Development

A stakeholder theory explains that the group interested in the company is the government, Greenpeace, customers, the local communities, stockholders, and creditors. As the company owners, shareholders will pressure the managers to work well (Whellen & Hunger, 2012) by proxy fight, leading to getting replaced and fired (Gitman & Zutter, 2012). According to Gitman and Zutter (2012), if managers achieve their demands, they will still be in their position.

In the banking industry, managers can organize the risk to create the banks with superiority, competitiveness, and sustainability (Suttipun et al., 2018). As a result, the banks can increase their performance financially (see Candy, 2021) and non-financially (see Rasid et al., 2014; Candy, 2021). After using Jakarta's non-financial and financial firms, Damayanti and Augustine's (2019) study informs a positive relationship between ERM and firm performance. Moreover, Sleimi (2020) declares that risk management practice positively influences Jordanian bank performance. With the value at risk (VAR) to measure ERM, the study of Olayinka et al. (2017) shows that ERM positively affects the accomplishment of financial companies in Nigeria. Also, in their research, Soliman and Adam (2017) confirm a positive influence of ERM on the Nigerian bank attainment, measured by the return on assets and the stock price, respectively. Through the investigation of the financial industry in Jordan, Al-Nimer et al. (2021) document a positive impact of ERM on non-financial and environmental attainment in the Jordanian financial companies. Based on these facts, we display the first hypothesis:

H₁: The enterprise risk management affects the bank's performance positively.

3. RESEARCH METHOD

3.1. Research Variable

In this investigation, two latent variables exist, i.e., bank performance and enterprise risk management, acting as the dependent and independent variables, respectively. Moreover, we measure the bank performance based on the indicators of the balanced scorecard dimensions as Information Systems Audit and Control Association (ISACA) (2012), Upadhaya, Munir, and Blount (2014), Rostami, Goudarzi, & Zaj (2015), Abofaied (2017), and Gupta et al. (2018) state, where the description is in Table 1.

Table 1: The dimensions of the balanced scorecard and their indicators to measure bank performance

| Dimensions | Indicators | Source |
|-----------------------|--|---------------------|
| Financial perspective | I work at a bank that can manage the equity well to produce profits (FP1). | Abofaied (2017) |
| | I work in a bank that can manage the assets well to produce profits (FP2). | Gupta et al. (2018) |
| | I work in a bank that can manage capital adequacy well to cover the credit risk (FP3). | |

Table 1: The dimensions of the balanced scorecard and their indicators to measure bank performance

| Dimensions | Indicators | Source |
|---------------------------------------|---|------------------------|
| | I work in a bank that can handle non-performing loans (FP4) | Rostami et al. (2015) |
| | I work in a bank that can meet the short-term debt already in maturity (FP5). | Abofaied (2017) |
| Customer perspective | The loyalty of depositors is the primary focus of the bank where I work (CP1). | Rostami et al. (2015) |
| | The bank where I work focuses on satisfying the depositor (CP2). | Abofaied (2017) |
| | The growth of depositors becomes the bank's attention where I work (CP3). | |
| | The bank I work for can quickly handle customer complaints (CP4). | Gupta et al. (2018) |
| Internal business process perspective | The bank where I work develops products and services as one form of innovation (IBPP1) | Abofaied (2017) |
| | The bank attempts to elevate quality-based products and services (IBPP2). | |
| | The bank where I work can keep its data, information, and business process (IBPP3). | ISACA (2012) |
| | The bank where I work can protect the identity of the depositors (IBPP4) | |
| Learning and growth perspective | The bank increases skill and competency in information technology (LGP1). | Abofaied (2017) |
| | Because of technology usage, the bank where I work can increase employee productivity (LGP2). | |
| | Because of technology applications, the bank can decrease employee turnover (LGP3). | |
| | Based on my experience, the employees never complained to the bank (LGP4). | Upadhaya et al. (2014) |

Next, we measure enterprise risk management based on the indicators derived from the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2017) in Table 2.

Table 2: The dimensions of the enterprise risk management and their indicators

| Dimensions | Indicators |
|-----------------------------|---|
| Bank governance and culture | The bank I work for has a board monitoring and managing risk (BGC1). |
| | The bank I work for sets the organizational structure with a clear job description and responsibility (BGC2). |
| | The bank I work for has a working culture suitable for the objective (BGC3). |
| | The bank I work for commits to principal shared value (BGC4). |
| | The bank I work for can recruit, develop, and keep employees with excellent abilities and contributions (BGC5). |
| Strategy and goal setting | The bank where I work can analyze the business environment to achieve its goals (SGS1) |
| | The bank where I work has a system to receive the risk (SGS2) |
| | The bank where I work can identify and evaluate the alternative strategies to attain its goals (SGS3) |
| | The bank where I work can formulate business goals by considering the available risks (SGS4) |
| Risk-related to performance | The bank where I work can identify risks affecting performance (RRP1). |
| | The bank where I work can minimize risks (RRP2). |
| | The bank where I work can set several steps to reduce risks (RRP3). |
| | The bank where I work can respond to the risk becoming the priority (RRP4). |

Table 2: The dimensions of the enterprise risk management and their indicators

| Dimensions | Indicators |
|---|---|
| | The bank where I work can develop a system for monitoring the risk (RRP5). |
| Review and improvement | The bank where I work can observe and measure substantial changes in risk that must be anticipated immediately (RI1). |
| | The bank where I work can review performance and its risks to implement strategies to achieve goals (RI2). |
| | The bank where I work can improve the risk management system (RI3). |
| Information, communication, and reporting | The bank where I work can utilize and develop technology and information systems (ICR1) |
| | The bank where I work can intensify the utilization of communication channels (ICR2) |
| | The bank where I work can improve the reporting on performance, risk, and culture at all levels (ICR3) |

Source: Adopted from COSO (2017)

3.2. Population and Sampling Method

The population in this study comes from the employees working at the banks in Indonesia. They must have a working tenure above three years in various departments, such as (1) finance, (2) information technology, (3) digital, (4) human resources, (5) research and development, (6) risk management, (7) strategy, (8) marketing, (9) operation, (10) credit analysis, (11) legal banking.

Because their number is unidentified, we utilize snowball sampling based on the excellent relationship with some recognized employees. Furthermore, they are asked to forward this survey to their colleagues in the same and different workplaces. Therefore, more respondents can be accumulated (Pandjaitan, MS, and Hadianto, 2021). Finally, this questionnaire is filled out by 198 employees; consequently, they become the sample for this study.

3.3. Data Collection

We employ the survey to obtain the data from the samples. This survey involves questionnaire distribution (Hartono, 2012). Additionally, the respondents' answer is measured by the six-Likert scales, ranging between one and six, reflecting extreme disagreement and agreement, as Sugiyono (2010) exhibits. Because the variable measurement consists of dimensions and indicators (see Tables 1 and 2), their loading factor should be available. Therefore, the validity is examined by comparing the loading factor with 0.5. If it is above 0.5, the answer will be valid, and vice versa. Moreover, we apply the Cronbach Alpha analysis to examine the reliability. A reliable response exists when the Cronbach Alpha exceeds 0.7 (Ghozali, 2011).

3.4. Method to analyze the data

This study successfully receives responses from 198 employees. According to Ghozali (2008), the sample size of almost 200 respondents and the presence of latent variables need the structural equation model (SEM) with a covariance basis to investigate data. To display the intended model, we formulate the first equation as follows.

$$BP_i = \beta_1.ERM_i + \zeta_i \quad (\text{Equation 1})$$

Before examining the hypothesis in this investigation ($\beta_1 > 0$), this SEM needs to be evaluated based on the goodness of fit measurements, such as the Chi-Square divided by degree of freedom (Ghozali, 2014), parsimony ratio, the parsimony normed, and comparative fit indexes with the specific cut-off value (Latan, 2013).

4. Result and Discussion

4.1. Results

4.1.1. Respondent profiles

This survey was conducted from December 2021 to January 2022. It resulted in the employee profile, as shown in Table 3, classified by gender, the city, and the bank's name where they work. Based on gender, females dominantly participated in this survey (59.09%). Denoting city, the employees from Bandung take the top position (35.86%), followed by Jakarta (25.25%) and Surabaya (11.62%). The bottommost is 0.51% from Bekasi, Cirebon, Depok, Jombang, Malang, Pacitan, Pangkalpinang, Rembang, Tebing Tinggi, Wonogiri, and Yogyakarta. Referring to the bank name, the employees from Bank Central Asia take the highest domination (35.86%), whereas the employees from Bank Capital Indonesia, Bank Commonwealth, Bank CTBC Indonesia, Bank DBS Indonesia, Bank Fama Internasional, Bank Ina Perdana, Bank Index Selindo, Bank Maspion Indonesia, Bank Mayapada, BPD Banten, Bank QNB Indonesia, Bank Sampoerna, BPR Amanat Kesejahteraan Indonesia, Bank Tabungan Pembangunan Negara, Bank Keb Hana Indonesia, and Bank KB Bukopin take the lowest participation: 0.51%.

Table 3: Employee Profile

| Feature | Sub-Feature | Total | Percentage |
|---|---------------------------|-------|------------|
| Gender | Male | 81 | 40.91% |
| | Female | 117 | 59.09% |
| The city where the respondents work | Bandung | 71 | 35.86% |
| | Bekasi | 1 | 0.51% |
| | Bogor | 7 | 3.54% |
| | Cilegon | 2 | 1.01% |
| | Cirebon | 1 | 0.51% |
| | Depok | 1 | 0.51% |
| | Jakarta | 50 | 25.25% |
| | Jombang | 1 | 0.51% |
| | Kupang | 12 | 6.06% |
| | Malang | 1 | 0.51% |
| | Medan | 3 | 1.52% |
| | Pacitan | 1 | 0.51% |
| | Palangkaraya | 2 | 1.01% |
| | Pangkalpinang | 1 | 0.51% |
| | Purwokerto | 4 | 2.02% |
| | Rembang | 1 | 0.51% |
| | Semarang | 3 | 1.52% |
| | Surakarta | 6 | 3.03% |
| | Surabaya | 23 | 11.62% |
| | Tangerang | 4 | 1.52% |
| | Tebing Tinggi | 1 | 0.51% |
| | Wonogiri | 1 | 0.51% |
| Yogyakarta | 1 | 0.51% | |
| The name of the bank where the respondents work | Bank Bisnis Internasional | 2 | 1.01% |
| | Bank Capital Indonesia | 1 | 0.51% |
| | Bank Central Asia | 71 | 35.86% |
| | Bank Commonwealth | 1 | 0.51% |
| | Bank CTBC Indonesia | 1 | 0.51% |
| | Bank Danamon Indonesia | 12 | 6.06% |
| | Bank DBS Indonesia | 1 | 0.51% |

Table 3: Employee Profile

| Feature | Sub-Feature | Total | Percentage |
|---------|------------------------------------|-------|------------|
| | Bank Fama Internasional | 1 | 0.51% |
| | Bank Ina Perdana | 1 | 0.51% |
| | Bank Index Selindo | 1 | 0.51% |
| | BPD Jabar & Banten | 4 | 2.02% |
| | Bank Kalteng | 2 | 1.01% |
| | Bank Mandiri (Persero) | 3 | 1.52% |
| | Bank Maspion Indonesia | 1 | 0.51% |
| | Bank Mayapada | 1 | 0.51% |
| | Bank Mayora | 2 | 1.01% |
| | Bank Mega | 2 | 1.01% |
| | Bank Nationalnobu | 7 | 3.54% |
| | Bank Negara Indonesia (Persero) | 8 | 4.04% |
| | Bank Pan Indonesia | 11 | 5.56% |
| | BPD Banten | 1 | 0.51% |
| | BPD NTT | 11 | 5.56% |
| | Bank Permata | 4 | 2.02% |
| | Bank QNB Indonesia | 1 | 0.51% |
| | Bank Rakyat Indonesia (Persero) | 4 | 2.02% |
| | Bank Sampoerna | 1 | 0.51% |
| | Bank Sinarmas | 3 | 1.52% |
| | Bank Syariah Indonesia | 3 | 1.52% |
| | Bank Tabungan Negara (Persero) | 5 | 3.03% |
| | Bank UOB Indonesia | 6 | 1.01% |
| | BPR Amanat Kesejahteraan Indonesia | 1 | 0.51% |
| | Bank Tabungan Pembangunan Negara | 1 | 0.51% |
| | Bank CIMB Niaga | 6 | 3.03% |
| | Bank Keb Hana Indonesia | 1 | 0.51% |
| | Bank KB Bukopin | 1 | 0.51% |
| | Bank Maybank Indonesia | 9 | 4.55% |
| | Bank OCBC NISP | 7 | 3.54% |

Source: Researcher Database

4.1.2. The validity and reliability results of the answer of the employees to the indicators of bank performance and enterprise risk management

In the beginning step, we find the invalid response to indicator LGP3, reflected by the loading factor 0.391 by the confirmatory factor analysis (CFA). Because of this situation, this indicator is removed. After that, we rerun the CFA, and the final result can be seen in Table 4:

- a. The loading factor of FP: FP1-FP5, CP: CP1-CP4, IBPP: IBPP1-IBPP4, and LGP: LGP1, LGP2, LGP4 is above 0.5: 0.923, 0.923, 0.916, 0.871, 0.770, 0.851, 0.938, 0.931, 0.879, 0.908, 0.920, 0.946, 0.946, 0.804, 0.814, and 0.571. Thus, the answer to all indicators is valid. Besides, the loading factor of all dimensions are higher than 0.5: 0.899 for FP, 0.976 for CP, 0.950 for IBPP, 0.880 for LGP. It means that all FP, CP, IBPP, and LGP can reflect bank performance.
- b. The Cronbach Alpha for valid indicators is also higher than 0.7: 0.943 for FP, 0.943 for CP, 0.962 for IBPP, and 0.761 for LGP. This situation means all FP, CP, IBPP, and LGP items are consistent.

Table 4: The validity and reliability test result of the answers to indicators of bank performance measured by the balanced scorecard

| Indicators | Loading factor for indicators | | Loading factor for dimension | | Cronbach Alpha for valid indicators | |
|------------|-------------------------------|--|------------------------------|---|-------------------------------------|---|
| | Value | Meaning | Value | Meaning | Value | Meaning |
| FP1 | 0.923 | The answer to all indicators for the BGC is valid because all the LF exceeds 0.5. | 0.899 | The FP dimension is valid because the LF exceeds 0.5. | 0.943 | The answer to all items of FP is consistent because the CA exceeds 0.7. |
| FP2 | 0.923 | | | | | |
| FP3 | 0.916 | | | | | |
| FP4 | 0.871 | | | | | |
| FP5 | 0.770 | | | | | |
| CP1 | 0.851 | The answer to all indicators for the CP is valid because all the LF exceeds 0.5. | 0.976 | The CP dimension is valid because the LF exceeds 0.5. | 0.943 | The answer to all items of CP is consistent because the CA exceeds 0.7. |
| CP2 | 0.938 | | | | | |
| CP3 | 0.931 | | | | | |
| CP4 | 0.879 | | | | | |
| IBPP1 | 0.908 | The answer to all indicators for the IBPP is valid because all the LF exceeds 0.5. | 0.950 | The IBPP dimension is valid because the LF exceeds 0.5. | 0.962 | The answer to all items of IBPP is consistent because the CA exceeds 0.7. |
| IBPP2 | 0.920 | | | | | |
| IBPP3 | 0.946 | | | | | |
| IBPP4 | 0.946 | | | | | |
| LGP1 | 0.804 | The answer to all indicators for the LGP is valid because all the LF exceeds 0.5. | 0.880 | The LGP dimension is valid because the LF exceeds 0.5. | 0.761 | The answer to all items of LGP is consistent because the CA exceeds 0.7. |
| LGP2 | 0.814 | | | | | |
| LGP4 | 0.571 | | | | | |

Table 5 presents the validity and reliability results of the answers to indicators of enterprise risk management:

- The loading factor of BGC: BGC1-BGC5, SGS: SGS1 -SGS5, RRP: RRP1-RRP5, RI: RI1-RI3, and ICR: ICR1-ICR3 is above 0.5: 0.741, 0.872, 0.849, 0.905, 0.698, 0.808, 0.702, 0.890, 0.889, 0.859, 0.880, 0.875, 0.869, 0.864, 0.880, 0.893, 0.890, 0.848, 0.878, 0.931. Thus, the answer to all indicators is valid. Besides, the loading factor of all dimensions are higher than 0.5: 0.941 for BG, 0.957 for SGS, 0.991 for RRP, 0.979 for RI, and 0.963 for ICR. It means that all BGC, SGS, RRP, RI and ICR can reflect ERM.
- The Cronbach Alpha for valid indicators is also higher than 0.7: 0.900 for BGC, 0.890 for SGS, 0.938 for RRP, 0.918 for RI, and 0.915 for ICR. This situation means that all BGC, SGS, RRP, RI, and ICR items are consistent.

Table 5: The validity and reliability test result of the answers to indicators of enterprise risk management

| Indicators | Loading factor for indicators | | Loading factor for dimension | | Cronbach Alpha for valid indicators | |
|------------|-------------------------------|---|------------------------------|--|-------------------------------------|--|
| | Value | Meaning | Value | Meaning | Value | Meaning |
| BGC1 | 0.741 | The answer to all indicators for BGC is valid because the LF exceeds 0.5. | 0.941 | The BGC dimension is valid because the LF exceeds 0.5. | 0.900 | The answer to all items of BGC is consistent because the CA exceeds 0.7. |
| BGC2 | 0.872 | | | | | |
| BGC3 | 0.849 | | | | | |
| BGC4 | 0.905 | | | | | |
| BGC5 | 0.698 | | | | | |
| SGS1 | 0.808 | The answer to all indicators for SGS is valid because the LF exceeds 0.5. | 0.957 | The SGS dimension is valid because the LF exceeds 0.5. | 0.890 | The answer to all items of SGS is consistent because the CA exceeds 0.7. |
| SGS2 | 0.702 | | | | | |
| SGS3 | 0.890 | | | | | |
| SGS4 | 0.889 | | | | | |
| RRP1 | 0.859 | The answer to all indicators for RRP is valid because the LF exceeds 0.5. | 0.991 | The RRP dimension is valid because the LF exceeds 0.5. | 0.938 | The answer to all items of RRP is consistent because the CA exceeds 0.7. |
| RRP2 | 0.880 | | | | | |
| RRP3 | 0.875 | | | | | |
| RRP4 | 0.869 | | | | | |
| RRP5 | 0.864 | | | | | |
| RI1 | 0.880 | The answer to all indicators for RI is valid because the LF exceeds 0.5. | 0.979 | The RI dimension is valid because the LF exceeds 0.5. | 0.918 | The answer to all items of RI is consistent because the CA exceeds 0.7. |
| RI2 | 0.893 | | | | | |
| RI3 | 0.890 | | | | | |

Table 5: The validity and reliability test result of the answers to indicators of enterprise risk management

| Indicators | Loading factor for indicators | | Loading factor for dimension | | Cronbach Alpha for valid indicators | |
|------------|-------------------------------|---|------------------------------|--|-------------------------------------|--|
| | Value | Meaning | Value | Meaning | Value | Meaning |
| ICR1 | 0.848 | The answer to all indicators for ICR is valid because the LF exceeds 0.5. | 0.963 | The ICR dimension is valid because the LF exceeds 0.5. | 0.915 | The answer to all items of ICR is consistent because the CA exceeds 0.7. |
| ICR2 | 0.878 | | | | | |
| ICR3 | 0.931 | | | | | |

4.1.3. The detection result of the goodness of the model fits

Table 6 exhibits some measures of the goodness of model fits, like Chi-Square divided by the degree of freedom (Chi-Square/DF) of 2.587, P-RATIO of 0.927, PNFI of 0.779, and PCFI of 0.830. Related to the first measure, because the Chi-Square/DF lies between 2 and 5, the data suits the model. Also, the empirical evidence still matches the model because the value associated with the second, third, and fourth measures exceeds 0.6.

Table 6: The goodness of the model fits

| Measures | Value | Expected value | Interpretation |
|--|-------|---|------------------------------|
| Chi-Square/DF | 2.587 | Between 2 and 5 (Ghozali, 2014) | Data are suitable for model. |
| Parsimony ratio (PRATIO) | 0.927 | More significant than 0.6 (Latan, 2013) | |
| Parsimony normed fit index (PNFI) | 0.779 | More significant than 0.6 (Latan, 2013) | |
| Parsimony comparative fit index (PCFI) | 0.830 | More significant than 0.6 (Latan, 2013) | |

4.1.4. The estimation result of the path coefficient model

After getting the confidence that the data utilized match the model, the next step is the estimation result of the path coefficient and its related statistical features, as seen in Table 7. In this table, the unstandardized coefficient is positive with the probability of 0.000. It also means the first hypothesis is not refused. Thus, enterprise risk management positively affects bank performance.

Table 7: The estimation result of the path coefficient

| Path direction | Unstandardized Path Coefficient | Standard error of estimation | Critical ratio | Probability |
|----------------|---------------------------------|------------------------------|----------------|-------------|
| ERM → BP | $\beta_1 = 1.170$ | 0.109 | 10.694 | *** |

4.2. Discussion

The test result of the first hypothesis depicts that enterprise risk management positively affects bank performance. This condition happens because of the stakeholders supporting the bank to survive. The primary actors are the controlling shareholders and top managers, and they have to override their self-interest and focus on serving society to borrow and save funds. According to Malik, Zaman, and Buckby (2020), the precise application of risk management helps the managers to capture the opportunities matching their strategic goals and identify potential risks to be evaluated through the standard process to make the correct decision. Therefore, this research supports the work of Suttipun et al. (2018), Damayanti and Augustine (2019), Sleimi (2020), Olayinka et al. (2017), Soliman and Adam (2017), as well as Al-Nimer et al. (2021). With this positive impact of ERM on bank performance, this study suggests that banks should focus on the governance and culture supporting the attainment, the strategy and goal settings, the review of the performance-based risk, the information, communication, and report related to sustainable risk management.

5. Conclusion

This study intends to test and analyze the influence of enterprise risk management on bank attainment based on the perspective of workforces in Indonesia. Furthermore, this study effectively proves the positive impact by employing the survey from December 2021 to January 2022 and 198 employees as the samples taken by the snowball sampling technique. Practically, this study demonstrates through the correct risk management, managers can take the opportunity suitable for their strategy and identify the potential risk to be evaluated by the standard process to make the decision correctly.

Although ERM positively affects bank performance, this investigation faces several limitations. Firstly, this investigation only uses one determinant of bank performance. This circumstance opens an opportunity for the subsequent scholars to add several factors, such as human capital, business innovation, bank size, and management accounting system. Secondly, because of the limited time and access, this study does not cover the bank employees from the eastern areas of Indonesia, such as Papua, West Papua, and Maluku islands. Based on this issue, the subsequent researchers can seek the employees from these areas to be the respondents in their survey.

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