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The effect of enterprise risks management, innovation towards sustainable finance moderated by intellectual capital

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Abstract. This study aims to find out how the influence of Enterprise Risk Management (ERM), innovation on Sustainable Finance in banking companies listed on the IDX for the 2017-2020 periods. By using a sample of 42 banking companies during the study period, then doing a regression analysis of the existing empirical model and MRA considering that this study uses moderating variables, then the panel data processing is carried out, then data processing from the sample used is carried out. The results obtained that ERM has a significant positive effect on SF, innovation has a significant positive effect on SF, IC has a significant positive effect on SF, while IC is unable to moderate a significant positive relationship between ERM and SF and IC is also unable to moderate a significant positive relationship between innovation and SF .

Keywords. ERM, Innovation, Intellectual Capital (IC), Sustainable Finance, Banking

1. Introduction

Sustainable finance usually refers to the method of taking into consideration Environmental, Social, And Governance (ESG) concerns once creating investment choices within the monetary sector, resulting in increased long investment into property economic activities and business [1].

The market-based sustainable finance initiative held by Sustainable Banking Network (SBN) has created important progress in steering the economy sector towards sustainability. International Finance Corporation (IFC) endorsement in 2012 also contributes to this process, SBN represents an association of economic services sector regulators and banking associations from thirty-four developing countries with the constant ambition to remodel financial markets towards sustainability. About \$42.6 trillion is represented by members in banking assets, accounting for over eighty-five % of total banking assets in rising markets. (<https://ojk.go.id>).

Research conducted by [2] states that sustainability performance is performance supported environmental, social, and economic factors that verify sustainability for the

corporate. The final show that the social and environmental appearance in the company is taken into account capable of supporting the accomplishment of the SDGs, however the SDGs is not influenced by economic performance. [3] say that banks as financial institutions move away from traditional banking and adopt sustainable finance by concentrating economic, social and governance criteria into their concept. This statement can be interpreted that the bank as a financial institution that have authority in the economic activities of the community in its activities not only to maximize shareholder value, but must play a direct role in integrating economic, social, and governance criteria to reach organizational purpose.

The Financial Services Authority (OJK) as the regulator of economic institutions in Indonesia always supports the spirit of a low-carbon economy by improving sustainable finance. Therefore, the OJK issued a regulation for banks to increase their credit portfolio with a sustainable finance scheme. As is known, OJK has set forth sustainable finance regulations in OJK Regulation (POJK) number 51 of 2017 concerning Action Plans for Sustainable Finance and POJK number 60 of 2017 concerning Issuance and Requirements for Environmentally Friendly Debt Securities [4]. As a realization in early 2019, OJK appointed eight banks to initiate credit distribution initiatives with sustainable finance principles. "The banks have worked on a number of sustainable finance projects such as renewable energy,

Financial institution companies in China have consistently implemented a green financial system, it is known that it is something that is institutionalized, especially for the banking sector to consistently carry out the system set by the regulator, it is also known that the "greening finance system" implemented there, has transformed China from a country that previously only utilized resources and was densely polluted became a country with a green economy [5].

If we reflect on the success in China, we hope that with the regulation on sustainable finance set by the OJK for banking companies in Indonesia, there will be seriousness on the part of the banking sector to consistently realize sustainable finance, so that it is not impossible that progress in the banking sector and other sectors will be achieved by Indonesia by being one a country with a green economy. For that we need a tool that is expected to help realize this green economy in the banking world in Indonesia, namely good corporate governance.

The results of the study written by [6] shows enterprise risk management has a important advantage on organizational appearance. This is in accordance with the explanation of COSO, 2004 in CIMA, 2008. Where ERM has the function as potencial events identifier which influence the company, and minimize risk so that it is at the level of risk that can be accepted by the company (risk appetite), to provide confidence in achieving entity goals. Where the statement means through good ERM, organizational goals can be realized and able to improve organizational performance.

Corporate Risk Management or often abbreviated as ERM is an effort made by companies to manage risks that may occur, this is undeniable because of bad experiences in the past such as major scandals such as Enron, Worldcom, Volkswagen emissions, and so on. The reduced trust in economic reporting between investors and creditors has made company governance a main priority for the directors, company management, audit committee and other authorities. Enterprise risk management increases risk awareness and further increases knowledge that leads to good decision making throughout the organization [7]. Enterprise Risk Management (ERM) as a discipline has received attention both locally and internationally in recent years [8]. Growing interest in companies, risk management has been associated with many challenges ranging from the global financial crisis, corporate fraud and others. Integrated risk management is needed to make the company better to prepared the risk [9]. Research

conducted by [10], [11] revealed that there is a significant influence between ERM and Sustainable Finance. Meanwhile, research conducted by [12] revealed that the ERM framework failed to address sustainable risks, so he suggested developing an ERM framework to address risks related to sustainability. Growing interest in companies, risk management has been associated with many challenges ranging from the global financial crisis, corporate fraud and others.

[13] stated that Innovation and sustainability shape significant connections to reach for environmental, financial, and social development. However, a lot stays to be executed in this place as there may be no complete-dimension device to degree the extent of innovation of companies. A globally recognized tool for measuring innovations is the recently released Global Innovation Index at the national level. If a country's enterprise can innovate, that country's innovation will develop rapidly. Especially in Indonesia, there was no comprehensive measure of innovation at the enterprise level. Consequently, given the increasing importance of organizational innovation, efforts are made to seek inventiveness measures to support the sustainability of company.

To improve and develop innovation, it is not enough to only invest financially, but also requires the use immaterial assets such as collaborations with, competitors, customers, supplier, and even partners such as colleges (commercial or laboratories, analysis or technology institute). These immaterial assets are also called IC.

IC is one of the important elements in supporting the values that underlie the new economic era. With the IC, the company is expected to be able to compete because it has a competitive advantage that can position the company as 'the leader'. 50%-90% of the value that occurs within the company comes from IC from production and sales. Research conducted by [14] IC has a positive relationship with business continuity. Research conducted by [15] reveals that green IC has an important influence on the company's financial appearance, then moderated by transparency is able to moderate the effect of a positive relationship on sustainability disclosure on financial appearance. This is a new insight that shows about IC management and development offers a bigger competitive. so that improving business performance, including business sustainability performance. A parity combination of IC components means high-value creation potential and future performance.

Based on the relation between IC, ERM, and innovation, also due to the lack of research on sustainable finance, especially in Indonesia and the author's curiosity about what factors can support the realization of sustainable finance in Indonesia, researchers are motivated to conduct research entitled "Sustainable Finance, ERM, Innovation and IC "In Banking Companies Listed on the Indonesia Stock Exchange for the 2017-2020 Period."

According to the description above, the following is a formulation of the problem.

1. Does ERM affect the sustainable finance of banking registered companies on the IDX?
2. Does innovation affect the sustainable finance of banking registered companies on the IDX?
3. Does IC affect Sustainable Finance?
4. Does IC moderate the influence of ERM on the sustainable finance of banking registered companies on the IDX?
5. Does IC moderate the impact of innovation on the sustainable finance of banking registered companies on the IDX?

2. Literature Review and Hypothesis Development

2.1 Literature review

Stakeholder Theory

The real goal of a corporate organization is to be able to meet the needs of stakeholders, [16], [17] state about the survival of a company following the contribution of stakeholders, so the company looks for the contribution. If the stakeholder is stronger, the company will be balanced. The important part of this research is stakeholder theory because it relates to the parties with an interest in the company; those who will be affected and affected by the company's activities, such as management responsibility to stakeholders in a program related to green banking (sustainable finance).

Resource Based View Theory

The Resource Based View or often called RBV was first expressed by Wernerfelt, (1984), this theory explains that the company is a collection of resources and capabilities, so that with these resources and capabilities the company can compete so that it has a competitive advantage. organizational performance can be mediated by competitive advantage, it means that competitive advantage will influence organizational performance, if competitive advantage increased, organizational performance will be increased too [6].

This competitive interests can be obtained if a company has high resources in which other companies do not have [18]. Based on previous research, IC is distinguished from the immaterial organizational assets that will support the company for accomplishing sustainable [19].

Enterprise Risks Management (ERM)

The basic reason of enterprise risk management states that entity is established to make worth for authorities. Every entity in polishing off operational activities continuously faces issues of uncertainty. The manager skills are challenged within their ability in the variety of the power to define how much uncertainty they face can be controlled, so that efforts that lead to increased stakeholder value can be realized. The uncertainties that managers are risks or possibilities through a managerial action that can reduce or increase value provision. Through the Enterprise Risk Management - Integrated Framework, managers should be effectively handled issues related to risks and opportunities that can provide potential for increasing value formation capacity [9]. ERM has a good and significant influence on company value [20], so if ERM increases it will be followed by an increase in firm value, so it can be said that with better risk management it will influence the company's appearance. By proactively addressing and identifying risks and opportunities, financial institutions project and create stakeholder value, not leaving customers, employees, owners and society as a whole.[11] ERM tries to confirm the accomplishment of strategic, operational, reportage, and compliance objectives. These objectives are meshed towards guaranteeing the monetary and overall performance of the organization. The ERM framework divided four (4) main objectives, such as: strategic (high-level values, balance to and support the organization's purpose), operations (efficient & effective use of resources), reporting (reporting reliability), and compliance (compliance with law & Regulations).

Innovation

Innovation is a dynamic process which is something that results from learning carried out by organizations that actively support new insight for increasing innovative ideas and this will result in innovation in the field [21]. Research conducted by [22] reveals that Sustainability

Innovation has positive effect on a Sustainable Competitive Advantage, it means that by implementing sustainability innovation could be supported competitive advantage for the company, not only competitive advantage even sustainable competitive advantage.

[21] reveals that two ideas have supported the relationship between creativity and sustainability. First, research-driven innovation related to ecological behavior, then the second concept of education about sustainable development held by improvement of structure insight management.

Sustainable Finance

According to OJK (2015) Sustainable finance in Indonesia was the overall contribution of the financial industry to the improvement of adjustment of social, economic, and environmental interests. For supporting the accomplishment of the Long-Term Development Plan (RPJP) and the Medium-Term Development Plan (RPJMN), the OJK on December 5, 2014 issued the 2015-2019 Sustainable Finance Roadmap. The roadmap contains an explanation about sustainable finance program for the financial industry based on OJK competence; banking, capital market, and non-bank financial industry (IKNB).

Sustainable banking means running a banking industry by combining an ethical environment and social into program concept and increasing sustainable improvement [23]. [24] state that essentially sustainable banking is to include ESG issues, managing the environment and social impacts and governance of banking programs for sustainable improvement.

Intellectual Capital

IC is an immaterial asset that brings a sustainable competitive for the organization through its collection of resources (Bontis, 1998, 2001; Joshi et al., 2010). the value of the company. Such a VAIC approach follows the methodological framework of [25], [26].

IC contributes an important role to increase the company's focus through knowledge transfer mechanisms about technology, and initiatives in achieving company goals. IC held an important role company's development and have a sustainable competitive advantage [27].

Many companies disclose their IC using the ICD, namely disclosing their IC using a scoring technique. Disclosure of IC is valuable information for shareholders because it makes it easier to provide an assessment of the company as well as being able to minimize the uncertainty of future opportunities and this of course will directly influenced on company's prestige. With the increase in IC, it is hoped that the behavior of managers that is detrimental to the company will be minimized so that it can reduce the emergence of information asymmetry due to more adequate supervision carried out by the company.

Previous Research

The result of the research conducted by [28] stated that banks should be "go green" and have an important role in improving environmental aspects, stakeholders have a significant influence on the development of green banking products for banking companies in Bangladesh. Research conducted by [5] which conducted research on financial companies, especially banking companies located in China, found that banking companies in China comply with the provisions set by the regulator, so that running a greening finance system is a must which ultimately brings China becomes a green economy

Research conducted by [6] explained a positive relation between ERM to organizational performance, it means that ERM can be supported the increasing of organizational performance. Then [10] revealed that the relation between ERM and indicators of bank sustainability and viability was found to be significant. Likewise, the research conducted by [11] using a sample of banking companies in Nigeria which stated about a positive relation between ERM and sustainable financial appearance, but on the contrary, the research written by [12] stated that

the existing ERM failed to address sustainability risks, thus suggesting changing the existing ERM platform.

Innovation is a dynamic process that actively supports new knowledge through recursive mechanisms and helps foster inventiveness to the field [21], [29]. Innovative approaches can help achieve sustainability goals, which requires reducing internal and external inequality in countries and generations. There are correlation between creativity and sustainability; innovation-driven by research related to ecological behavior and sustainable development driven by continuous improvement of organizational insight management. Research conducted by [22] reveals that sustainability innovation directly or indirectly through sustainable extraordinary competitive on company appearance, this means that there is a link between innovation and sustainability, or it can be said that innovation will affect sustainability in the company because Innovation will make the company have a competitive advantage which will ultimately affect the company's performance.

According to [30] IC is the sum of everything that members of a company know and gives them an extraordinary competitive. The Organization for Economic Co-operation and Development's Definition of IC (OECD, 1999) explained IC as the financial assessment of two varieties of immaterial assets: organizational capital and human capital. IC disclosure is the level of disclosure of a company's IC and is identified as the immaterial assets that bring inventive through its ability to improve a company's performance (Bontis, 1998). In the intellectual context, IC integrates all of the immaterial assets of an institution, consists of processes, innovative abilities, patents, tacit knowledge of members and their abilities, talents, and skills, society awareness, and collaboration [31]. Research conducted by [13] stated that IC was able to moderate a significant positive relation between ERM and corporate sustainability, but IC was unable to moderate a significant positive relationship between innovation and corporate sustainability, as was the case with [32] stated that IC was unable to perform an important relation between innovation and sustainability.

2.2 Hypothesis Development

Risk management requires a continuous process in order to carry out its functions properly and help companies to implement strategies that can support the achievement of company goals [6], [11]. Research conducted by [33]. [34] stated that ERM and Sustainability have an important relationship. And the hypothesis explained about sustainability moderates the relation between ERM company appearance. This means that ERM is directly proportional to sustainable finance. So the better the implementation of ERM in a company, the better the implementation of sustainable finance will be. The following is the first hypothesis based on the description.

H1: ERM has a positive effect on Sustainable Finance

Innovation is a dynamic process using an active recursive mechanism that supports new insight, with the purpose to innovate in the field. [35] stated that stakeholder theory assumes that, to defend the existence of companies is require stakeholders support (sustainability). There is a link between innovation and sustainability, or it can be said that innovation will affect sustainability in the company because innovation will make the company have a competitive advantage which will ultimately affect the company's performance [22]. In the previous research explained that the inventive approach taken by the company is useful to accomplish sustainability goals [21]. This research opine that the greater the innovation carried out by the company, the greater the company's opportunities to achieve sustainable conditions. Besides, research conducted by [36].

H2: Innovation has a positive impact on Sustainable Finance

IC is related to the long term value thought. Therefrom, IC development is related to the 2030 program for sustainable improvement [37]. Therefore, scientists have emphasized in controlling and quantifying immaterial resources, such as IC, as a driving force for competitiveness, market trust, innovation and sustainability. [38] analyzed the relation between IC and sustainability using a practitioner's thought. (Chandra & Augustine, 2019) reveals that green IC has an advantage on the company's financial appearance, then moderated by transparency is preside the influence of a positive relationship on sustainability disclosure on financial appearance, while [38] tried to discuss sustainability from a practitioner's perspective. From practical sees, IC and sustainability are mutually influential, and managing both in duplicate is beneficial to the corporate. IC has a positive influence on the company's sustainability.

H3 : IC has a positive effect on Sustainable Finance

Previous research has also shown that corporates with IC have better positioned to be safe from the effects of economy and markets changes. These companies can cover the risk and handle them in a better way (Sofian et al., 2004). Research written by [6] reveals that ERM has a positive significant to organizational appearance with a competitive advantage as a mediating variables, it means that to own a competitive advantage, the company needs IC. Companies with IC are adopting operational risk management techniques to have a positive impact on their business and market performance. Proponents of resource-based views consider ERM and IC to be top-notch corporate assets. Therefore, it is suggested that the combined effect of ERM and IC can improve the sustainability of a corporate.

H4 : IC moderates the positive relationship between ERM and Sustainable Finance.

IC is able to improve organizational appearance based on knowledge, experience, skills of employees, and giving new methods of task appearance and being inventive in the process. Thus, the company's IC shows the value of ideas and the ability to be innovative for a longer period of time (Karchegani et al., 2013). GIC shows a strong role to increase the company's ability to develop and has sustainable competitive interests. [27], it means that GIC supported the relationship between innovation to sustainable finance.

(Rantala et al., 2018) examined the sustainability factor behind inventive for sustainable development and known if many organizations appreciate the sustainability economy, they will also adopt sustainability innovation. (Przychodzen et al., 2018) explain the reason which distinguishes and promote sustainable enterprise-level innovation. They known that sustainable innovation activity was strongly and statistically related to the sector in which it operates. For example, sectors with high levels of environmental impact tend to innovate for sustainable development.. Based on this description, a hypothesis can be made.

H5: IC moderates the positive relationship of innovation to Sustainable Finance.

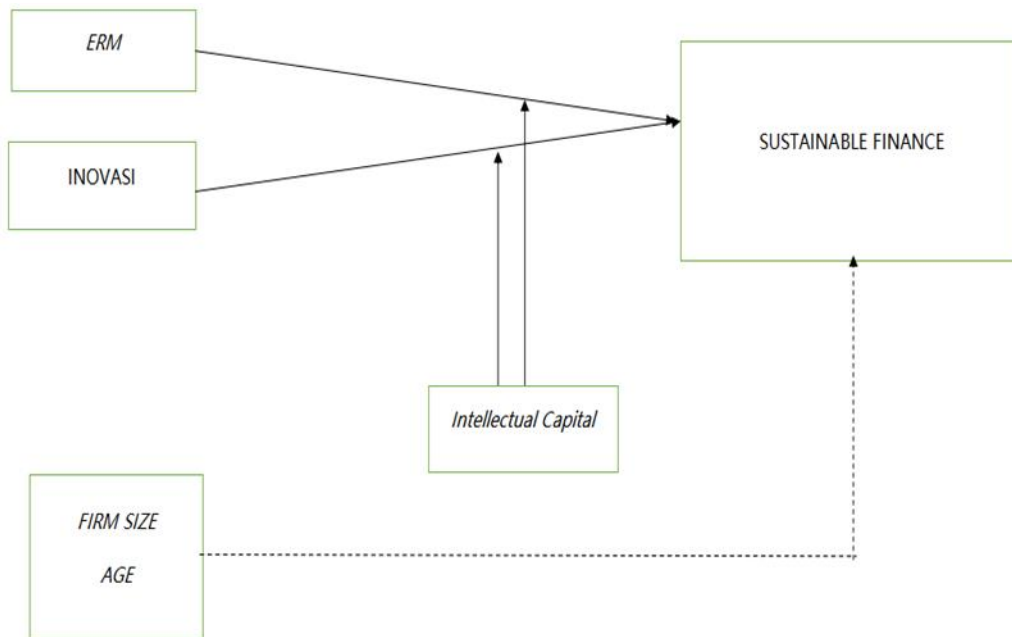


Figure 1. Research Framework

Research Methodology

This is a descriptive research with a quantitative approach using the method of content analysis. This research used secondary data from IDX.

Population, Sample and Data Collection Method

The population of this study is all banking registered companies on the IDX. Meanwhile, to obtain the sample, the researchers used purposive sampling method with categorize as follows.

1. Banking companies listed in the IDX for the period 2017-2020
2. Banking companies that report complete financial statements every December 31 during the 2017-2020 period.

The analytical model used in this study is as follows:

$$SF_t = 0 + 1ERM + 2IN + 3IC + \beta_4SIZE + 5AGE + e + \dots\dots\dots(1)$$

Because this study uses IC as a moderating variable, the data processing is carried out using the MRA equation:

$$SF_t = 1 + 1ERM + 2IN + \theta_3IC + 4ERM*IC + 5IN*IC + \theta_6SIZE + 7AGE + e + \dots\dots\dots(2)$$

Description :

- SF = Sustainable Finance
- 0 = constant equation 1
- 1 = constant of equation 2
- 1-β₅ = regression coefficient equation 1
- 1- 2 = regression coefficient of equation 2
- ERM = Enterprise Risk Management
- IN = Innovation
- IC = Intellectual Capital
- SIZE = company size
- AGE = company age

Variable Operational Definition

Dependent Variable

The dependent variable of this research is Sustainable Finance. To measure sustainable finance using an index that is guided by [23].

$$SF_{ij} = X_{ij} / n_j$$

Description :

SF_{ij} : Sustainable Finance company index j year i

N_j : Number of items for company j, n_j

X_{ij} : The number of items disclosed by company j for year i, X_{ij} = 1 if the elements are disclosed; 0 if the elements are not disclosed, the items disclosed are 40 items.

The following is a list of the sustainable finance indexes used in this study referring to the measurements developed by Kumar and Prakash (2018):

Independent variable

ERM

1. This research quantify ERM based on a framework developed in 2017, where this year COSO issued an ERM framework that is more detailed and complex because it is integrated with performance and strategy. The main contribution of the 2017 ERM framework is to add governance, culture and strategy setting [39]. By using this framework, an index of the company can be made so that measurements can be made for existing applications in a corporation. The framework is consists of five varieties, namely, setting strategy and objectives, governance and culture, review, performance, and revision as well as information, communication and reporting, then each component consists of several basics. By doing content analysis for each company and then giving a value of = 1 if the company applies the basis in accordance with the 2017 framework, it will otherwise give a value of = 0 if the company does not apply the basis of the item in question, then the value is added and divided by 20 based on the total number of bases included in this assessment.

$$ERM_{ij} = X_{ij} / n_j$$

Description:

ERM_{ij} : Enterprise Risks Management company index j year i

N_j : Number of items for company j, n_j

X_{ij} : The number of items disclosed by company j for year i, X_{ij} = 1 if the elements are disclosed; 0 if the elements are not disclosed, the items disclosed are 20 items.

Innovation

To measure innovation, an index is used to perform content analysis. Based on the framework developed by [36] to better understand the effect of innovation performance in the service sector on sustainability in the financial industry. The framework shows separate blocks related to antecedents of innovation performance, innovation performance initiatives, and innovation performance as a driving force for companies that excel in sustainability.

So to measure innovation in research using the index are as follows:

$$IN_{ij} = X_{ij} / n_j$$

Description :

IN_{ij} : Service innovation of company index j year i

N_j : Number of items for company j, n_j

X_{ij} : The number of items disclosed by company j for year i, X_{ij} = 1 if the elements are disclosed; 0 if the elements are not disclosed, the items disclosed are 13 items.

Moderating Variables

Intellectual Capital

The moderating variable in this study is IC. To measure IC then by using the model Al-Janini et al. (2018) used index numbers (ICD index).

The percentage of the disclosure index is calculated using the following formula:

$$ICDI = (\sum_{i=1}^n di / M) \times 100\%$$

ICDI = IC disclosure index (ICD Index)

di = value 1 if the number of items is found, and 0 if the items are not found

M = total number of items measured as many as 17 items

Control Variable

This study uses control variables, among others:

Company Size (Firm Size)

Firm Size calculated by the logarithm of the company's total assets, which is the assumption that the company's total assets tend to be more stable than the number of sales. Firm Size Formula [40] are as follows:

$$FS = \text{Log } n (\text{Total Assets})$$

To measure the size of the company using the company's total assets which are then logarithmic right

Company Age

To measure the age of the company, it is calculated based on the length of time the company has been operating to carry out its business activities from its establishment to the end of the research period. The age of the company in this study is calculated based on the company's listing on the IDX up to the period of this study [40].

Company age = Research Year -nth year (first year of issue on the IDX)

Data analysis method

This research data analysis method uses multiple regression which is then processed using EVIEWS 9.

4. Results and Discussion

A. Descriptive Statistics

Table 1. Descriptive Statistics

	N	mean	Minimum	Maximum	Std. Dev.
SF	168	0.5896	0.3250	0.9000	0.1428
ERM	168	0.9054	0.6000	1.0000	0.0835
IN	168	0.8063	0.5384	1.0769	0.1254
IC	168	0.8487	0.7059	0.9418	0.0633
ERMIC	168	0.7700	0.4235	0.9412	0.1037
INC	168	0.6883	0.3801	0.9412	0.1392
SIZE	168	13.5375	11.8226	15,179	0.8030
AGE	168	13,809	3	38.000	9.2127

Source: Processed Results eViews 9

Classical Assumption Test

1. Multicollinearity Test Results

According to the final of the multicollinearity test the results of the comparison of the correlation coefficient values of each independent variable indicate that there is no independent

variable that has a correlation coefficient value of < 0.9 . So it can be concluded that this research data does not occur multicollinearity or there is no relationship between independent variables.

2. Heteroscedasticity Test Results

According to the heteroscedasticity test with the White test. The probability value of Chi-Square Obs*R-squared > 0.05 . The conclusion is the regression model has no heteroscedasticity problem.

Panel Data Regression Results

Results of Regression Panel Data Equation 1

The right model for equation 1 is to use the fixed effect where the results of the panel data regression test can be seen below:

Table 2. Regression Results 1

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	-0.907999	0.332427	-2.731425	0.0072
ERM	0.251393	0.102223	2.459270	0.0153
IN	0.246685	0.073446	3.358733	0.0010
IC	0.315043	0.142257	2.214604	0.0287
SIZE	-0.005071	0.024386	-0.207957	0.8356
AGE	0.063169	0.004913	12.85816	0.0000

The panel data regression equation can be formulated as follows.

$$SF = -0.907999 + 0.251393 \text{ ERM} + 0.246685 \text{ IN} + 0.315043 \text{ IC} - 0.005071 \text{ SIZE} + 0.063169 \text{ AGE} + e$$

Results of Regression Panel Data Equation 2

According to the model selection results, the right model for equation 2 is to use the fixed effect which the results of the panel data regression test as follows:

Table 3. Regression Results 2

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	-1.514676	1.055746	-1.434697	0.1540
ERM	0.119207	1.181226	0.100918	0.9198
IN	1.127222	0.817284	1.379229	0.1704
IC	1.012487	1.219547	0.830216	0.4081
ERMIC	0.143708	1.398418	0.102764	0.9183
INC	-1.049343	0.965269	-1.087099	0.2792
SIZE	-0.002103	0.024644	-0.085340	0.9321
AGE	0.062871	0.004935	12.73862	0.0000

Source: Results of EViews 9

The panel data regression equation can be formulated as follows.

$$SF = -1.514676 + 0.119207 \text{ ERM} + 1.127222 \text{ IN} + 1.012487 \text{ IC} + 0.143708 \text{ ERMIC} - 1.049343 \text{ INC} - 0.002103 \text{ SIZE} + 0.062871 \text{ AGE} + e$$

E. Coefficient of Determination

For equation 1 the value of Adjusted R-squared is 0.782442 or 78.2442%. The independent variables include ERM, innovation, IC, size and age can explain the dependent variable, namely sustainable finance by 78.2442%. After that, 21.7558% is caused by variables which excluded from this study.

For equation 2 the value of Adjusted R-squared is 0.781170 or 78.117%. This shows that the independent variables include Enterprise Risks Management, innovation, IC,

interaction of enterprise risk management and IC, interaction of innovation and IC size and age explain the dependent variable, namely sustainable finance of 78.117%. After that, 21.883% is caused by variables which excluded from this study.

F. F Statistics Test (Simultaneous Effect Test)

For equation 1, the probability value of the F-statistic has a value of 0.0000. This shows that the probability (F-statistic) < 0.05 then H_0 is rejected and H_1 is accepted. The conclusion is ERM, innovation, IC, size and age have a simultaneous influence on sustainable finance.

For equation 2, the probability value of the F-statistic has a value of 0.0000. The probability (F-statistic) < 0.05 then H_0 is rejected and H_1 is accepted. The conclusion is ERM, innovation, IC, interaction of enterprise risk management and IC, interaction of innovation and IC size and age have a simultaneous influence on sustainable finance.

G. Results of t-test (Hypothesis Testing)

Table 4. Hypothesis Test Results

Hypothesis	Coefficient	t-value	Prob	Results
H1: ERM has a positive effect on Sustainable Finance	0.251393	2.459270	0.0153	Hypothesis accepted
H2: Innovation has a positive effect on Sustainable Finance	0.246685	3.358733	0.0010	Hypothesis accepted
H3 : IC has a positive effect on Sustainable Finance	0.315043	2.214604	0.0287	Hypothesis accepted
H4 : IC moderates the positive relationship between ERM and Sustainable Finance	0.143708	0.102764	0.9183	Hypothesis rejected
H5: IC moderates the positive relationship of innovation to Sustainable Finance	-1.049343	1.087099	0.2792	Hypothesis rejected

From The results of testing hypothesis 1 show that the probability value is 0.0153 < 0.05 and the t-count value is 2.459270 $>$ t-table 1.65426 so that it can be said that there is a significant influence of ERM on sustainable finance. Meanwhile, the coefficient value is 0.251393 which explained a positive influence from ERM on sustainable finance. From these results, there is a positive influence of ERM on sustainable finance so that the first hypothesis in this study can be supported. This shows that the improvement of ERM will increase the sustainable finance of the bank. The final of the study are related to the research of [10]. [12] who revealed that ERM was not able to support sustainable finance so that ERM had to make adjustments to its platform. Likewise with the research conducted by [13] which states that ERM has no impact on the sustainability of the company. The results of this study mean that the implementation of ERM is an important thing that will affect sustainability, especially in banking companies.

Results Hypothesis 2 testing shows that the probability value is 0.0010 < 0.05 and the t-count value is 3.358733 $>$ t-table 1.65426 so that it can be said that there is a significant influence of innovation on sustainable finance. Meanwhile, the coefficient value is 0.246685 which shows a positive influence from innovation on sustainable finance. From these results, it can be said that there is a positive effect of innovation on sustainable finance so that the second

hypothesis in this study can be supported. This shows that the increase in innovation will increase the sustainable finance of the bank. The final of this study are same as the research of [21], [22], [36].

From the results of testing hypothesis 3, it shows that the probability value is $0.0287 < 0.05$ and the t-count value is $0.315043 > t\text{-table } 1.65426$ so that it can be said that there is a significant influence of IC on sustainable finance. Meanwhile, the coefficient value is 0.315043 which indicates a positive influence from IC on sustainable finance. From these results, it can be said that there is a positive influence of IC on sustainable finance so that the third hypothesis in this study can be supported. This shows that the increase in IC will increase the sustainable finance of the bank. The results of this study are same as several research [15], [27], [37], [38]. The results of this study prove that IC is an important aspect in the realization of SF in banking companies, especially those in Indonesia, and thus it is hoped that this IC can moderate other important factors such as ERM and innovation towards SF.

From the results of testing hypothesis 4 and hypothesis 5, it shows that the probability value is $0.9183 > 0.05$ and the t-count value is $0.102764 < t\text{-table } 1.65426$ with a coefficient value of 0.143708 and for hypothesis 5 the probability value is $0.2792 > 0.05$ and the t-count value $-1.087099 < t\text{-table } -1.65426$ with a coefficient value of -0.143708 . so it can be said that IC cannot moderate the positive influence of ERM on Sustainable Finance. The result is contrary with the research conducted by [6], [41]. The results of hypothesis 5 for this study is same as research written by [32] which explained that IC is unable to moderate a significant positive relationship between innovation and sustainability and contradicts the results of research conducted by [27], [42], [43]. This means that the moderating effect of IC on ERM, innovation and SF is not dominant.

Conclusion

Based on the results of sample data processing on banking industry in Indonesia listed in 2017 to 2020, the first is ERM has an interesting relation in sustainable finance, of course in accordance with the existing literature which states that ERM has an effect on Sustainable finance and the second is innovation. has an advantage on Sustainable Finance, this is also in accordance with previous research about an advantage between innovation and sustainability and IC has a significant positive relationship with sustainable finance. And third, IC has a significant positive relationship with sustainable finance so that it is expected to be able to moderate ERM and innovation towards sustainable finance.

The implication of this research on the literature is that it can enrich or add to the research literature on SF which is still rare, where previous reference studies examined the factors that influence the sustainability of the company, but this study tries to examine more specifically, namely looking at the influence of important factors on SF. In addition, this research also has implications for the banking world or in particular how important it is to implement SF, to be able to apply SF to its full potential, it is necessary to know the important factors that can support SF such as ERM and innovation. In addition, the 2017 ERM framework used in this study uses [39], which can be used by banks in which this framework uses five components, namely governance and culture.

Suggestion

This study has limitations, namely only using banking registered companies on the IDX during 2017-2020 period, for further research it can expand the sample used, such as using a sample of banking registered companies and non-listed on the IDX.

In addition, this study only uses two independent variables, for further research can add other independent variables such as business ethics or corporate culture.

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