

The Influence of Financial Slack on Firm Innovativeness: The Moderating Role of Board Size

A.A. Pt. Agung Mirah Purnama Sari

Abstract

This study aims to investigate the influence of financial slack on firm innovativeness, with board of commissioners and the board of directors as moderating variables. The population of this study consists of 61 companies listed in the Indonesian Stock Exchange, but during the course of the research, some companies were eliminated due to incomplete relevant data from year 2016 to 2021. After the statistical analysis and modelling, this study found that financial slack does not influence firm innovativeness. Similarly, the moderating variables, board of commissioners and the board of directors, also do not moderate the influence of financial slack on firm innovativeness. Hence, the results contradict the hypothesized relationships. This study argues that these findings might be influenced by the economic conditions in Indonesia at that time of the COVID-19 pandemic. As a result, companies shifted their focus and priorities, placing a higher emphasis on the financial health and risk management of the company rather than using excess resources to enhance corporate innovation. While this study is limited to the available sample size, as not all companies allocate their funds for innovation activities, its novelty lies in the inclusion of the board of commissioners and the board of directors as moderating variables in examining the influence of financial slack on firm innovativeness. As such, the research model and findings contribute to the diversity of existing research outcomes on similar topics.

Keywords: *Financial slack, firm innovativeness, board of commissioners, board of directors*

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1. Introduction

The concept of financial slack involves the surplus resources of a company beyond its current business needs, aimed at boosting sales and fulfilling corporate commitments (Jermias & Yigit, 2023; Mishina et al., 2004; Tran et al., 2018; Mousa & Reed, 2013). Slack plays a crucial role in enhancing corporate innovation by allowing companies to experiment with new strategies, thereby enabling the creation of innovative projects (Nohria & Gulati, 1996). It represents the surplus of available financial resources, including cash and accounts receivable (Bourgeois & Singh, 1983; George, 2005; Greve, 2003; Kim et al., 2008) which provides companies with the freedom to invest their resources in other areas, particularly in research and development (R&D) investments (Kim et al., 2008; Nohria & Gulati, 1996) or new organizational projects (Zona, 2012).

Global business practices indicate that companies tend to retain more financial slack during uncertain demand. According to Picoletto et al. (2018), high discretionary financial slack refers to the net working capital while low discretionary financial slack represents the degree of debt. The level of financial resource flexibility represents high discretion as it can be applied to various activities (Kim et al., 2008; Sharfman et al., 1988). Some financial slack practices can occur when a company allows cash and cash equivalents to exceed their actual operational needs which creates high liquidity in the form of financial slack (Liang et al., 2023).

According to Vitale et al. (2023), financial slack resources are useful to boost company innovation. However, several previous studies have shown differing results regarding the influence of financial slack on firm innovativeness. For instance, Parida and Örtqvist (2015) found that high financial slack combined with high levels of network capability and IT capability resulted to highest innovation performance. In addition, Zhang et al. (2021) and Ashwin et al. (2016) discovered that financial slack significantly increases investment in company innovation. While the excess financial resources are more likely to be invested in R&D (Mousa & Chowdhury, 2014) leading to positive effect on firm innovation, it has negative effect on firm performance (Lewis, 2013). This is similar to the findings of Lu and Wong (2019) that higher firm performance leads to lower share of exploratory innovation. Lee (2015) also found a weak relationship between slack and innovation in Korea. The relationship between slack and innovation in Korea depends on varying social and institutional

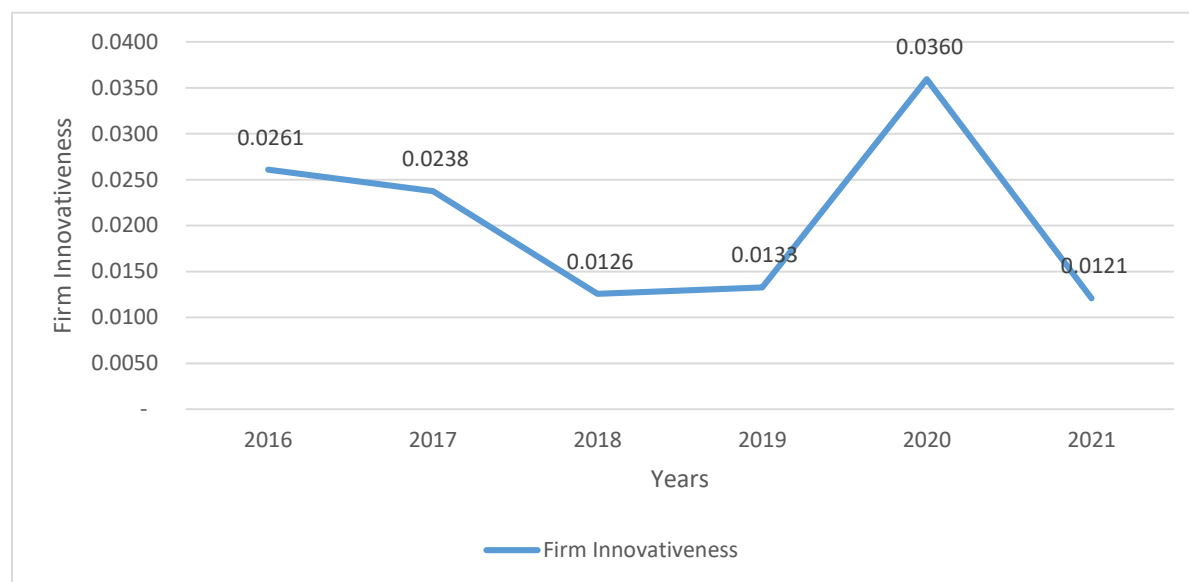
arrangements in which companies operate and the organizational characteristics of the company. Nevertheless, the influence of financial slack on firm innovativeness remains relatively underexplored.

Agency theory is another concept that addresses the relationship between financial slack and firm innovation. Since excess resources owned by the company can create agency problems, financial slack is considered to result in: 1) inefficiency, as managers may not prioritize resources efficiently and may spend a lot of time and money on less profitable projects; or 2) harm performance and hinder risk-taking, wherein the excess financial slack can also hinder innovation and reduce performance. This happens when managers feel secure with a high level of slack and are therefore less motivated to take the necessary risks to develop innovative products and services (Jensen, 1986, 1997; Kim et al., 2008). On the other hand, financial slack provides additional resources that are essential for a company to explore new solutions and opportunities, thereby leading to greater risk-taking and increased investments in R&D (Greve, 2003).

In Indonesia, firm innovativeness shows a rather fluctuating trend. As shown in figure 1, the trend of firm innovativeness among consumer goods manufacturing companies listed in the Indonesia Stock Exchange during the period 2016-2021 experienced fluctuating movements. The fluctuating levels of innovation within these companies could be attributed to various factors, such as external economic influences, changes in market conditions, shifts in management strategies, and fluctuations in research and development investments. It is evident that in 2020, innovation experienced the highest increase. During this year, consumer goods manufacturing companies, especially those in the food and beverage and pharmaceutical subsectors, were required to meet emergency needs such as personal protective equipment and additional medical equipment due to COVID-19. Companies in the consumer goods sector also increased their investments in R&D to find better medical solutions and technologies. In this scenario, the increase in firm innovation can be influenced by financial slack. With financial slack, companies can manage and allocate their available financial resources to enhance their R&D capacity, diversify their products, and explore new concepts and projects in response to the pandemic without worrying excessively about its immediate impact on the company's finances (Kim et al., 2008; Nohria & Gulati, 1996).

Figure 1

Average firm innovativeness for consumer goods manufacturing in Indonesia



Source: Processed Research Data (2023)

This study assessed the effect of financial slack on innovativeness of firms in the Indonesia Stock Exchange. Similar to the previous studies, it aims to prove the statistical relationship of financial slack and firm innovativeness. While there are many studies on the effect of financial slack on firm performance (i.e. Putri et al., 2019; Jermias & Yigit, 2023; Odum et al., 2019; Tran et al., 2018; Yudhanti & Roida, 2022; Feng et al., 2020; Chu et al., 2021; Tabassam & Khan, 2021; Rafailov, 2017; Vanacker et al., 2017; George, 2005; Titus et al., 2022), there are only few studies on its effect on firm innovativeness (i.e. Heubeck & Meckl, 2023; Duan et al., 2020; Lee, 2015; Marlin & Geiger, 2015; Hong & Shin, 2021; Meyer & Leitner, 2018; Hong & Shin, 2016; Lewis, 2013; Beck & Beuren, 2022), much less in the Indonesian setting (i.e. Fuad, 2012). While other studies on firm innovativeness measured with different variables (i.e. Mousa & Chowdhury, 2014; Lu & Wong, 2014; Zhang et al., 2020; Nguyen & Chieu, 2018), only few focused on board composition (Heubeck & Meckl, 2023). Incorporating the concepts of agency theory, this study also examines the moderating effect of board size, utilizing the two-tier system which involves a separation between the board of directors and the board of commissioners, a corporate structure common in Indonesia. This study argues that the presence of the board of directors strengthens the influence of financial slack on firm innovativeness because they can set the company's budget by allocating funds

from financial slack for use in long-term investments, expansion activities, and R&D initiatives. This study also contends that the presence of the board of commissioners enhances the influence of financial slack on firm innovativeness, as the board of commissioners plays a role in overseeing the company's financial practices, thus providing advice and insights to the board of directors for prudent management of financial slack. The utilization of board size as a moderator in this study introduces novelty and contributes to the diversity of existing research outcomes.

2. Literature Review and Hypothesis Development

2.1. Agency Theory

The agency theory is frequently employed in strategic research to explore how financial slack can impact a company's innovation. The agency theory is utilized to address three issues that can arise in agency relationships: the agency problem arising from conflicting desires or objectives between the principal and agent; the agency problem stemming from the difficulty of the principal in verifying what the agent has actually done; and the risk-sharing problem that arises when the principal and agent have differing attitudes toward risk. Consequently, contracts are created to align the interests of the principal and agent (Eisenhardt, 1989).

The fundamental assumption in agency theory is that managers will act opportunistically by pursuing personal gains before fulfilling the interests of shareholders. Conflicts of interest arising from the possibility that agents do not always act in line with the principal's interests can trigger the emergence of agency costs, which are costs incurred to ensure that managers align with the owner's objectives. Agency costs consist of monitoring costs and bonding costs (Watts & Zimmerman, 1990). This study argues that agency theory as applied involves: conflict of interest, in the context of financial slack, shareholders may want to see efficient use of financial resources to enhance stock value, while managers may have incentives to maintain financial slack as a reserve that provides flexibility and security in managing the company; and monitoring, the board of directors and commissioners as representatives of shareholders can play a role in overseeing management in using financial slack for innovation.

2.2. Financial Slack and Firm Innovativeness

Investing in corporate innovation carries a high level of risk because companies commit significant resources to experimentation without certainty about the outcomes. The

underutilized resources from financial slack motivate companies to engage in the risk of pursuing innovation through R&D initiatives (Ehie & Olibe, 2010; Guo et al., 2020; Kim et al., 2008). For instance, Shaikh et al. (2018) and Carnes et al. (2019) found a significant positive impact of financial slack on R&D intensity. Similarly, Guo et al. (2020) examined the relationship between financial slack and firm performance, with R&D intensity as a mediating variable and found that R&D investment mediates the influence of financial slack on firm performance. However, the relationship between financial slack and R&D investment weakens at high levels of government subsidies.

This study argues that the presence of board size consisting of the board of directors and the board of commissioners will strengthen the influence of financial slack on firm innovativeness. This is because the board of directors can allocate funds from financial slack to be used in long-term investments, expansion activities, and R&D initiatives. Meanwhile, the board of commissioners plays a role in overseeing the company's financial practices, allowing them to provide advice and insights to the board of directors for prudent management of financial slack.

H₁: Financial slack has a positive influence on firm innovativeness.

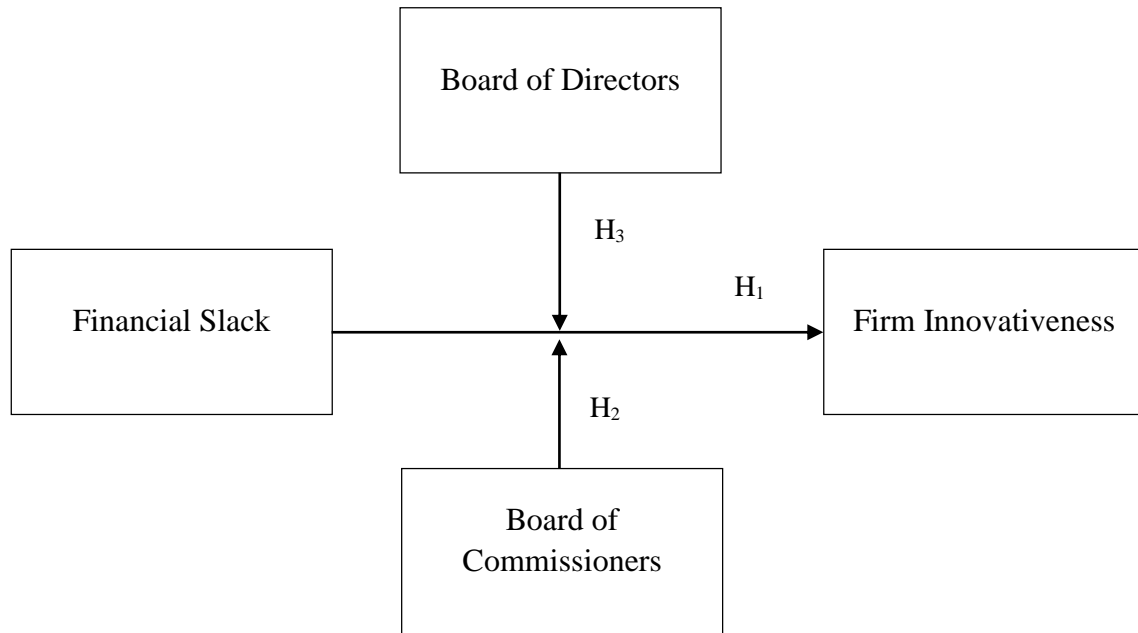
H₂: The board of commissioners moderates the influence of financial slack on firm innovativeness.

H₃: The board of directors moderates the influence of financial slack on firm innovativeness.

3. Research Methodology

3.1. Sample and data collection

The population in this study consists of all manufacturing companies in the consumer goods sector, including subsectors such as food and beverages, tobacco, pharmaceuticals, cosmetics, household goods, household appliances, and others listed in the Indonesia Stock Exchange from 2016 to 2021, totaling 61 companies. The research sample was obtained by eliminating companies with incomplete financial data relevant to the variables under study. As a result, 13 companies with 78 observations were selected as the sample. The conceptual model for this study is depicted in Figure 2.

Figure 1*Conceptual Model*

3.2. Definitions and measurements

3.2.1. Financial Slack

Financial slack is categorized as unabsorbed slack, consisting of currently uncommitted liquid resources that can easily be redeployed elsewhere (Bourgeois & Singh, 1983). Financial slack is further divided into two categories: available slack and potential slack. Available slack is measured using the current ratio, while potential slack is measured using the leverage ratio (Debt to Equity Ratio). This study only focuses on available slack. The current ratio is a ratio used to measure a company's ability to meet its short-term obligations that will mature soon, utilizing the total current assets available. The formula for the current ratio is shown as follows (Husna & Satria, 2019):

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

3.2.2. Firm Innovativeness

Firm innovativeness is crucial for achieving higher company performance. Through innovation, companies can introduce new ideas, services, and products that enhance overall company performance. Innovation within a company can be evaluated in terms of its breadth and depth. The breadth of innovation assists companies in introducing novel ideas, such as product innovation, marketing process innovation, overall corporate innovation, and more. On

the other hand, the depth of innovation refers to a company's ability to repeatedly identify new offerings, ensuring readiness for creativity regardless of new offerings (Yousaf et al., 2020). In this study, firm innovativeness is measured using R&D intensity calculated using the following formula (Nam, 2019):

$$\text{R\&D Intensity} = \frac{\text{R\&D Expense}}{\text{Total Assets}}$$

3.2.3. Moderation Variable

There are two types of board structures, namely the single board structure and the dual board structure. The single board structure is used in Anglo-Saxon countries, while the dual board structure is used in continental European countries, including Indonesia. In the single board structure, there is no separation between executive and non-executive directors, whereas in the dual board structure, there is a separation between the board of commissioners and the board of directors (Utama & Utama, 2019).

Board of Commissioners. The board of commissioners is responsible for overseeing the board of directors that manages the company. According to the Republic of Indonesia Law No. 40 of 2007 concerning Limited Liability Companies or Perseroan Terbatas, the board of commissioners is a corporate organ tasked with conducting general and/or specific supervision in accordance with the Articles of Association, and providing advice to the board of directors. The board of commissioners is measured by summing up the total number of commissioners and independent commissioners in the company, which can be found in the company's annual report.

Board of Directors. According to the Republic of Indonesia Law No. 40 of 2007 concerning Limited Liability Companies or Perseroan Terbatas, the board of directors is defined as the corporate organ fully responsible for the company's interests and purposes, representing the company both within and outside the court, in accordance with the provisions of the Articles of Association (AOA). The board of directors is measured by summing up the total number of directors in the company, which can be found in the company's annual report.

Publicly traded companies in Indonesia are required to have at least two members on their board of commissioners. These companies are also mandated to have independent commissioners, constituting a minimum of 30% of the total board composition. This requirement is stipulated in Article 108 (5) of the Republic of Indonesia Law No. 40 of 2007 concerning Limited Liability Companies and the Regulation of Bapepam-LK IX.J.1 regarding

the Articles of Association of Public Companies, issued by the Indonesian capital market regulator.

4. Results and discussion

4.1. Descriptive statistics

Table 1 presents the statistical test results of the influence of financial slack on firm innovativeness with the board of directors and the board of commissioners as moderating variables. The data were obtained from company reports and processed from 13 observed companies spanning from 2016 to 2021, resulting to 78 total observations.

Table 1

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Slack	78	.15	9.22	2.8792	1.78018
Board of Directors	78	2	9	5.51	1.552
Board of Commissioners	78	1	9	4.47	1.857
Firm Innovativeness	78	.000042	.003966	.00171727	.000929194
Valid N (listwise)	78				

Source: The Research Data Processed (2023)

The descriptive results of financial slack indicate an average of 2.879, with a standard deviation of 1.780, ranging from a minimum value of 0.15 to a maximum value of 9.22. The description of the board of directors reveals an average of 5.51, accompanied by a standard deviation of 1.552, ranging from a minimum value of 2 to a maximum value of 9. The depiction of the board of commissioners yields an average of 4.47, with a standard deviation of 1.857, ranging from a minimum value of 1 to a maximum value of 9. The description of firm innovativeness shows an average of 0.0017, with a standard deviation of 0.0009, ranging from a minimum value of 0.000042 to a maximum value of 0.003966.

4.2. Test Classical Assumptions

Prior to conducting linear regression analysis on the research hypotheses, it is necessary to perform tests for classical assumptions on the data to be processed. The purpose of fulfilling these classical assumptions is to ensure that the independent variables, acting as estimators for

the dependent variable, remain unbiased. Classical assumption tests include tests for normality, heteroscedasticity, multicollinearity, and autocorrelation.

4.2.1. Normality Test

The results of the normality test using the Kolmogorov-Smirnov test are presented in Table 2. Using the Kolmogorov-Smirnov, the test yielded a significance value of 0.087. Since the significance value is greater than 0.05 ($p > 0.05$), it indicates that the residuals follow a normal distribution and the normality assumption is satisfied.

Table 2

Results of Normality Test Using the Kolmogorov-Smirnov Test

		Unstandardized Residual
N		78
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.00089342
Most Extreme Differences	Absolute	.094
	Positive	.094
	Negative	-.073
Test Statistic		.094
Asymp. Sig. (2-tailed)		.087 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: The Research Data Processed (2023)

4.2.2. Heteroskedasticity Test

The results of the heteroskedasticity test are presented in Table 3. The Glejser test yielded significance values for each independent variable greater than 0.05 ($p > 0.05$), indicating that no heteroskedasticity issue was found in the model, and thus, the heteroskedasticity assumption is satisfied.

Table 3

Results of Heteroskedasticity Test Using the Glejser Test

	Model	t	Sig.
1	(Constant)	5.427	.000
	Financial Slack	-1.498	.138
	Board of Directors	-.939	.351
	Board of Commissioners	1.095	.277

a. Dependent Variable: Absolute Residual

Source: The Research Data Processed (2023)

4.2.3. Multicollinearity Test

The results of the multicollinearity test are presented in Table 4. Using the VIF, the test yielded VIF values for each independent variable less than 10 ($VIF < 10$), indicating that no multicollinearity issue was found in the model, and thus, the multicollinearity assumption is satisfied.

Table 4

Multicollinearity Test Using the VIF Test

Model	Collinearity Statistics		
		Tolerance	VIF
1	Financial Slack	.609	1.642
	Board of Directors	.316	3.160
	Board of Commissioners	.438	2.285

*a. Dependent Variable: Firm Innovativeness
Source: The Research Data Processed (2023)*

4.2.4. Autocorrelation Test

The results of the autocorrelation test are presented in Table 5. Using the Durbin-Watson, the test yielded a DW value of 1.905. For comparison, the value of U is 1.713 and the value of $4-dU$ is 2.287. These results indicate that the DW value falls within the range of dU and $4-dU$ values ($dU < DW < 4-dU$), implying no autocorrelation issue was found, and thus, the autocorrelation assumption is satisfied.

Table 5

Autocorrelation Test Using the Durbin-Watson Test

Model	Durbin-Watson
1	1.905 ^a

a. Predictors: (Constant), Board of Commissioners, Financial Slack, Board of Directors

b. Dependent Variable: Firm Innovativeness

Source: The Research Data Processed (2023)

4.3. F Test (Goodness of Fit Test)

The results of the F-test are presented in Table 6. The calculated F-value is 1.772, and the significance value is 0.130, while the critical F-value is 2.342. These results indicate that the calculated F-value is less than the critical F-value ($F_{\text{calculated}} < F_{\text{critical}}$), and the significance value is greater than 0.05 ($\text{sig} > 0.05$), thus suggesting that there is no significant influence of financial slack on firm innovativeness with the moderation of the board of directors and the board of commissioners, simultaneously.

Table 6*Goodness of Fit Test Result*

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	5	.000	1.772	.130 ^b
	Residual	.000	72	.000		
	Total	.000	77			

a. *Dependent Variable: Firm Innovativeness*

b. *Predictors: (Constant), Financial Slack * Board of Commissioners, Board of Commissioners, Financial Slack, Financial Slack * Board of Directors, Board of Directors*

Source: The Research Data Processed (2023)

4.4. Moderation Regression

The results of the moderation test on the influence of financial slack on firm innovativeness with the board of directors and commissioners as moderating variables are presented in Table 7.

Table 7*Moderation Regression Result*

		Coefficients ^a				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.001	.000		2.611	.011
	Financial Slack	-7.290E-5	.000	-.140	-.898	.372
	Board of Directors	.000	.000	.288	1.452	.151
	Board of Commissioners	1.081E-5	.000	.022	.128	.898
	Financial Slack * Board of Directors	-7.112E-5	.000	-.262	-1.659	.101
	Financial Slack * Board of Commissioners	5.394E-5	.000	.144	1.004	.319

a. *Dependent Variable: Firm Innovativeness*

Source: The Research Data Processed (2023)

The results of the moderation regression equation between financial slack and firm innovativeness moderated by the board of directors and commissioners are presented as follows:

$$\text{R\&D Intensity} = 0.001 - 7.290 \times 10^{-5} \text{ Financial Slack} + 0.000 \text{ Board of Directors} + 1.081 \times 10^{-5} \text{ Board of Commissioners} - 7.112 \times 10^{-5} \text{ Financial Slack} * \text{ Board of Directors} + 5.394 \times 10^{-5} \text{ Financial Slack} * \text{ Board of Commissioners} + \varepsilon$$

The equation indicates that:

- a) The influence of financial slack on firm innovativeness is obtained with a regression coefficient of -7.290×10^{-5} , a t-statistic value of 0.898, and a significance value of 0.372. These results show a negative influence but not statistically significant. This means that the higher the value of financial slack, the change in firm innovativeness will not be significantly affected. For every 1-unit increase in financial slack, there is a change of -7.290×10^{-5} units in firm innovativeness. Thus, H_1 is rejected.
- b) The influence of financial slack on firm innovativeness moderated by the board of commissioners results in a regression coefficient of 5.394×10^{-5} , a t-statistic value of 1.004, and a significance value of 0.319. These findings indicate a positive influence but not statistically significant. This suggests that higher values of financial slack moderated by the board of commissioners will not significantly impact changes in firm innovativeness. For every 1-unit increase in financial slack moderated by the board of commissioners, there is a change of 5.394×10^{-5} units in firm innovativeness. Thus, H_2 is rejected.
- c) The influence of financial slack on firm innovativeness moderated by the board of directors results in a regression coefficient of -7.112×10^{-5} , a t-statistic value of 1.659, and a significance value of 0.101. These findings indicate a negative influence but not statistically significant. This implies that higher values of financial slack moderated by the board of directors will not significantly impact changes in firm innovativeness. For every 1-unit increase in financial slack moderated by the board of directors, there is a change of -7.112×10^{-5} units in firm innovativeness. Thus, H_3 is rejected.

4.5. Discussion

4.5.1. Financial Slack and Firm Innovativeness

The first finding indicates that financial slack, measured by the current ratio, does not have a significant effect on firm innovativeness, measured by R&D intensity. This result contradicts the hypotheses formulated. Financial slack refers to the financial resources that exceed a company's operational needs. In the context of firm innovation, there are arguments and evidence supporting the view that having financial slack can positively impact a company's innovation. However, there are several reasons why financial slack might not always have a positive effect on firm innovation, such as comfort, delayed actions, and shifting priorities.

When a company has a large financial slack, management tends to feel more comfortable and less urgency to take innovative actions. They might feel that they have enough time and resources to address innovative challenges in the future. This can lead to a delay in taking the necessary innovative steps. Moreover, considering that this study was conducted during the COVID-19 pandemic in Indonesia (Thaha, 2020), this study argues that the phenomenon of the COVID-19 pandemic might have influenced managerial actions in executing financial slack. Managers prioritized using their excess resources to survive amid the pandemic rather than engaging in innovation activities. Managers and other stakeholders shifted their focus and did not prioritize company innovation during that time.

4.5.2. Financial Slack, Board of Commissioners, and Firm Innovativeness

The second finding indicates that the board of commissioners does not moderate the effect of financial slack on firm innovativeness. This result rejects hypothesis 2. The board of commissioners plays a crucial role in overseeing and directing a company's activities, including decisions related to innovation and resource allocation. However, the board of commissioners might not always be effective in mediating the influence of financial slack on company innovation. This study argues that this might occur due to a shift in the focus of the board of commissioners, especially in 2019 when Indonesia was facing the unprecedented COVID-19 pandemic (Thaha, 2020). They might have been more inclined to monitor financial aspects rather than delve into the details of innovative initiatives and resource allocation decisions for innovation. The COVID-19 pandemic faced by Indonesia could have led to a shift in the strategic focus of the board of commissioners. They might have become trapped in day-to-day operational monitoring, neglecting their role in guiding long-term innovation strategies to ensure the company's survival amid global economic uncertainty.

4.5.3. Financial Slack, Board of Directors, and Firm Innovativeness

The third finding indicates that the board of directors does not moderate the effect of financial slack on firm innovativeness. This rejects hypothesis 3. The board of directors holds a strategic role in overseeing and guiding the company, including decision-making regarding innovation and resource management. However, this study argues that there are several factors that could explain why the board of directors might not always be effective in mediating the influence of financial slack on company innovation. One of these factors is the recurring theme of the COVID-19 pandemic faced by Indonesia, spanning from 2019 to 2021, which were years marked by economic turbulence globally, including in Indonesia (Thaha, 2020). Due to this

situation, managers might have shifted their focus and priorities towards financial aspects, growth, and potential risks that the company might encounter. As a result, their attention on company innovation could have diminished.

5. Conclusion, contributions, limitations, and future research

5.1. Conclusion

This study yielded results indicating that financial slack does not have a significant effect on firm innovativeness, hence rejecting H1. The additional findings also reveal that the boards of directors and commissioners are not capable of moderating the influence of financial slack on firm innovativeness, leading to the rejection of H2 and H3, as well. These outcomes that deviate from the hypotheses could likely be influenced by the global economic conditions that impacted Indonesia during the Covid-19 pandemic. The concept that financial slack does not significantly affect firm innovativeness aligns with the agency theory employed in this research.

5.2. Contribution

This study examines the influence of financial slack on firm innovativeness with the boards of commissioners and directors as moderating variables. The research model introduced here is relatively novel and is expected to address gaps in previous research findings. This research is expected to contribute to: managers and corporate executives to gain a deeper understanding of financial slack as they are responsible for managing the company's financial resources. This understanding assists them in allocating resources to support innovation, expansion, product development, and other business needs; board of commissioners and directors, as they play a crucial role in overseeing and making strategic decisions for the company. Understanding financial slack helps them be more effective in achieving the company's goals, including innovation; financial analysts and finance professionals, to assist them in making investment recommendations and credit decisions; public policymakers, to help them design policies that support economic stability and growth; and future researchers by adding insights to the body of knowledge and serving as a reference for subsequent researchers conducting similar research in the future.

5.3. Limitations

This study is constrained by the available sample size, as not all companies allocate their resources for innovation activities. Moreover, during the time of the study, Indonesia was grappling with the COVID-19 pandemic, causing companies to prioritize their financial

sustainability and risk management (Hermanto et al., 2021; Thaha, 2020). This shift in focus allowed companies to temporarily overlook matters related to enhancing innovation within the organization.

5.4. Future Research

In future research, it is recommended to incorporate additional variables that might influence firm innovativeness. Using different measurements could also enhance the depth of the findings on the topic of firm innovativeness. Furthermore, linking the research model with other relevant theories could provide a more comprehensive understanding of the subject. These steps would contribute to a more holistic and nuanced exploration of the relationship between financial slack, firm innovativeness, and the moderating roles of board of directors and board of commissioners.

References

- Ashwin, A. S., Krishnan, R. T., & George, R. (2016). International Studies of Management & Organization Board Characteristics, *Financial Slack and R & D Investments*. 8825 (January). <https://doi.org/10.1080/00208825.2015.1007007>
- Beck, F. & Beuren, I.M. (2022). The interface of organisational slack with innovation: a study of a textile company. *International Journal of Business Innovation and Research (IJBIR)*, Vol. 29, No. 3.
- Bourgeois, L. I., & Singh, J. V. (1983). Organizational Slack and Political Behavior Among Top Management Teams. *Acad. Management Proc.*, 43–48.
- Carnes, C. M., Xu, K., Sirmon, D. G., & Karadag, R. (2019). How Competitive Action Mediates the Resource Slack - Performance Relationship: A Meta-Analytic Approach. *J. Manag. Stud*, 56(1), 57–90. <https://doi.org/10.1111/joms.12391>
- Chu, S.H., Ren, Y., Cai, H., Xu, Y. and Bao, S. (2021). Financial slack, operational slack and firm performance during episodes of financial crises: A panel data analysis. *International Conference on Public Management and Intelligent Society (PMIS)*, Shanghai, China, 2021, pp. 144-148, doi: 10.1109/PMIS52742.2021.00039.
- Duan, Y., Wang, W., & Zhou, W. (2020). The multiple mediation effect of absorptive capacity on the organizational slack and innovation performance of high-tech manufacturing

- firms: Evidence from chinese firms. *International Journal of Production Economics*, 229(3), 107754. <https://doi.org/10.1016/j.ijpe.2020.107754>.
- Ehie, I. C., & Olibe, K. (2010). The effect of R&D investment on firm value: An examination of US manufacturing and service industries. *International Journal of Production Economics*, 128(1), 127–135. <http://dx.doi.org/10.1016/j.ijpe.2010.06.005>
- Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, 14(1), 57–74.
- Fuad, F. (2012). The effect of innovativeness on the relationship between diversification and slack. *EKUITAS (Jurnal Ekonomi dan Keuangan)*. Vol. 16 No. 3 (2012). <https://doi.org/10.24034/j25485024.y2012.v16.i3.348>
- George, G. (2005). Slack Resources and the Performance of Privately Held Firms. *Academy of Management Journal*. 48, (4), 661-676.
- Greve, H. R. (2003). A Behavioral Theory of R & D Expenditures and Innovations: Evidence from Shipbuilding. *Academy of Management*, 46(6), 685–702.
- Guo, F., Zou, B., Zhang, X., Bo, Q. & Li, K. (2020). Financial slack and firm performance of SMMEs in China: Moderating effects of government subsidies and market-supporting institutions. *International Journal of Production Economics*. Volume 223, May 2020, 107530. <https://doi.org/10.1016/j.ijpe.2019.107530>
- Hermanto, Y. B., Lusy, L., & Widyastuti, M. (2021). How financial performance and state-owned enterprise (Soe) values are affected by good corporate governance and intellectual capital perspectives. *Economies*, 9(4). <https://doi.org/10.3390/economies9040134>
- Heubeck, T. & Meckl, R. (2023). Does board composition matter for innovation? A longitudinal study of the organizational slack–innovation relationship in Nasdaq-100 companies. *J Manag Gov*. <https://doi.org/10.1007/s10997-023-09687-4>
- Hong, S. & Shin, H.D. (2021). Organizational slack and innovativeness: the moderating role of institutional transition in the Asian financial crisis. *Asian business & management*, 20(3), pp. 370–389. <https://doi.org/10.1057/s41291-019-00094-y>.
- Husna, A., & Satria, I. (2019). Effects of Return on Asset, Debt to Asset Ratio, Current Ratio, Firm Size, and Dividend Payout Ratio on Firm Value. *International Journal of Economics and Financial Issues*, 9(5), 50–54.

- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323–329.
- Jensen, M. C. (1997). Eclipse of the Public Corporation. *Harvard Business Review*, Sept-Oct 1989, Revised 1997, 1–31.
- Jermias, J. & Yigit, F. (2023). Investigating the effects of innovation intensity and lenders' monitoring on the relation between financial slack and performance. *Journal of Accounting & Organizational Change*, Vol. 19 No. 3, pp. 494-512. <https://doi.org/10.1108/JAOC-05-2022-0078>
- Kim, H., Kim, H., Lee, P. M., Kim, H., & Lee, P. M. (2008). Ownership Structure and the Relationship Between Financial Slack and R & D Investments: Evidence from Korean Firms. June 2014. *Organization Science*, 19 (3). <https://doi.org/10.1287/orsc.1080.0360>
- Lee, S. (2015). Slack and innovation: Investigating the relationship in Korea. *Journal of Business Research*, 68(9), 1895–1905. <https://doi.org/10.1016/j.jbusres.2014.12.009>
- Lewis, T.C. (2013). A Review and Analysis of the Effects of Financial Slack on Firm Innovation. *Theses and Dissertations*. 331. <https://dc.uwm.edu/etd/331>
- Lu, L.H. & Wong, P.K. (2019). Performance feedback, financial slack and the innovation behavior of firms. *Asia Pac J Manag.* 36, 1079–1109 (2019). <https://doi.org/10.1007/s10490-018-9634-4>
- Marlin, D., & Geiger, S. W. (2015). A reexamination of the organizational slack and innovation relationship. *Journal of Business Research*, 68(12), 2683–2690. <https://doi.org/10.1016/j.jbusres.2015.03.047>.
- Meyer, M. & Leitner, J. (2018). Slack and innovation: The role of human resources in nonprofits. *Nonprofit management & leadership*, 29(2), pp. 181–201. <https://doi.org/10.1002/nml.21316>.
- Mishina, Y., Pollock, T. G., & Porac, J. F. (2004). Are more resources always better for growth? Resource stickiness in market and product expansion. *Strategic Management Journal*, 25, 1179–1197. <https://doi.org/10.1002/smj.424>
- Mousa, F. & Chowdhury, J. (2014). Organizational slack effects on innovation: the moderating roles of CEO tenure and compensation. *Journal of Business Economics and Management*, 15:2, 369-383, DOI: [10.3846/16111699.2013.839476](https://doi.org/10.3846/16111699.2013.839476)

- Mousa, F., & Reed, R. (2013). The Impact of Slack Resources on High-Tech IPOs. *Entrepreneurship Theory and Practice*, 37(5), 1123-1147. <https://doi.org/10.1111/etap.12001>
- Nam, H. (2019). The dividend payout policy and R & D for loss firms: Evidence from South Korea from South Korea. *Asia-Pacific Journal of Accounting & Economics*, 26(1–2), 172–183. <https://doi.org/10.1080/16081625.2019.1546564>
- Nguyen, T.T., & Chieu, T.D. (2018). Slack resources and innovation in Vietnamese SMEs: A behavioural, stewardship, and institutional perspective. *WIDER Working Paper* 2018/78. Helsinki: UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/2018/520-6>
- Nohria, N., & Gulati, R. (1996). Is Slack Good or Bad for Innovation. *The Academy of Management Journal*, 39(5), 1245–1264.
- Odum, A. N., Odum, C. G., & Okoye, G. O. (2019). The Impact of Financial Slack on Firm Performance in a Recessed Economy: The Nigerian Experience. *Indonesian Journal of Contemporary Accounting Research*, 1(2), 69–76.
- Parida, V., & Örtqvist, D. (2015). Capability, and Financial Slack on Technology-Based. *Journal of Small Business Management*, 53(S1), 278–298. <https://doi.org/10.1111/jsbm.12191>
- Putri, W., Nurwiyanta, N., Sungkono, S. & Wahyuningsih, T. (2019). The emerging fintech and financial slack on corporate financial performance. *Investment Management and Financial Innovations*, 16(2), 348-354. doi:[10.21511/imfi.16\(2\).2019.29](https://doi.org/10.21511/imfi.16(2).2019.29)
- Rafailov, D. (2017). Financial Slack and Performance of Bulgarian Firms. *Journal of Finance and Bank Management*, Vol 5 No 2 December 2017. 10.15640/jfbm.v5n2a1
- Shaikh, I. A., Paul, J., Brien, O., & Peters, L. (2018). Inside directors and the underinvestment of financial slack towards R & D- intensity in high-technology firms. *Journal of Business Research*, 82(September 2017), 192–201. <https://doi.org/10.1016/j.jbusres.2017.09.014>
- Sharfman, M. P., Wolf, G., Chase, R. B., & Tansik, D. A. (1988). Antecedents of Organizational Slack University of Southern California. *The Academy of Management Review*, 13(4), 601–614. <https://doi.org/10.2307/258378>
- Tabassam, A. H., & Khan, S. (2021). Corporate Governance and Firm Performance: Exploring the Mediating Role of Financial Slack. *Journal of Accounting and Finance in Emerging Economies*, 7(2), 511-522. <https://doi.org/10.26710/jafee.v7i2.1793>

- Thaha, A. F. (2020). Dampak Covid-19 Terhadap UMKM Di Indonesia [The Impact of Covid-19 on MSMEs in Indonesia]. *Jurnal Brand*, 2(1), 148–153.
- Titus, V., O'Brien, J. P., & Dixit, J. (2022). Does Performance Breed Slack? Ownership as a Contingency to the Performance Feedback and Slack Relationship. *Journal of Management*, 48(5), 1270-1298. <https://doi.org/10.1177/01492063211014263>
- Tran, K., Nguyen, P., & Nguyen, L. (2018). The Role of Financial Slack, Employee Creative Self-Efficacy and Learning Orientation in Innovation and Organizational Performance. *Administrative Sciences*, 8(4), 82. <http://dx.doi.org/10.3390/admsci8040082>
- Utama, C. A., & Utama, S. (2019). Board of Commissioners in Corporate Governance, Firm Performance, and Ownership Structure. *International Research Journal of Business Studies*, 12(2), 111–136.
- Vanacker, T., Collewaert, V. & Zahra, S.A. (2017). Slack resources, firm performance, and the institutional context: Evidence from privately held European firms. *Strategic Management Journal*. Volume 38, Issue 6, pages 1305-1326. <https://doi.org/10.1002/smj.2583>
- Vitale, G., Cupertino, S. & Taticchi, P. (2023). Analysing the role of available organisational slack resources in affecting environmental performance. A structural equation modelling approach. *Measuring Business Excellence*, Vol. 27 No. 3, pp. 341-363. <https://doi.org/10.1108/MBE-09-2022-0110>
- Watts, R. L., & Zimmerman, J. L. (1990). Positive Accounting Theory: A Ten Year Perspective. *The Accounting Review*, 65(1), 131–156.
- Yousaf, S., Anser, M. K., Tariq, M., Jawad, S. U. R. S., Naushad, S., & Yousaf, Z. (2020). Does technology orientation predict firm performance through firm innovativeness? *World Journal of Entrepreneurship, Management and Sustainable Development*, 7(1), 140–151. <https://doi.org/10.1108/WJEMSD-11-2019-0091>
- Zhang, K., Jing Wang, J., Sun, Y., & Hossain, S. (2021). Financial slack, institutional shareholding and enterprise innovation investment: Evidence from China. *Accounting and Finance*, 61(2), 3235–3259. <https://doi.org/10.1111/acfi.12700>
- Zona (2012). Corporate investing as a response to economic downturn: prospect theory, the behavioural agency model and the role of financial slack. *British Journal of Management*, 23 (2012), pp. S42-S57